

Eric Stefan G. Shaqfeh

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Personal Born November 23, 1959, Married, 2 Children

Education

- **Doctor of Philosophy**, March, 1986
Chemical Engineering, Stanford University; Thesis Advisor: Prof. A. Acrivos
- **Master of Science**, June, 1982
Chemical Engineering, Stanford University
- **Bachelor of Science, *summa cum laude***, June, 1981
Chemical Engineering, Princeton University; (also **Engineering Physics Program**)

Experience

- **Professor** —Dept. of Chemical Engineering, Stanford University; 9/1/99—present
Associate Department Chair, 9/1/2001 – 1/1/2005; **Department Chair**, 7/2011 – 7/2015;
9/2016 – 9/2018
- **Professor** — Institute of Computational and Mathematical Engineering, Stanford University, 11/2004
— present
- **Professor** — Dept. of Mechanical Engineering, Stanford University, 1/1/2001— present
- **Associate Professor** (w/ tenure)—Dept. of Chemical Engineering, 1/1/95—8/31/99, Stanford University
- **Assistant Professor**—Dept. of Chemical Engineering, 1/90—1/95, Stanford University
- **Adjunct Professor**—Dept. of Chemical Engineering, 9/88—12/91, Cornell University, Ithaca, NY
- **Member of Technical Staff**—AT&T Bell Laboratories, 1/87—1/90
Department: Lithography and Chemical Engineering, 11543; Supervisor: L. F. Thompson
- **Postdoctoral Research**—Dept. of Applied Math. & Theor. Physics, Cambridge, England, 3/86—
12/86; Advisors: Prof. G. K. Batchelor and Dr. E. J. Hinch
- **Research Engineer**—Shell Development Co. Westhollow Research Center, Houston, TX, Summer
1981
- **Research Engineer**—Dupont Chemical Co. Experimental Station, Wilmington, DE, Summer 1980

Honors, Awards, Editorships

1. Fellow of the American Institute of Chemical Engineering (AIChE), 2019
2. Alpha Chi Sigma Award (“Recognizes an individual’s outstanding accomplishments in fundamental or applied chemical engineering research”), AIChE 2018
3. Associate Member of the Institute of Non-Newtonian Fluid Mechanics, Aberystwyth, Wales, 2015
4. Fellow of Society of Rheology, 2015
5. Climbed Mt. Kilimanjaro (Uhuru Peak via Umbwe Trail), summited Feb. 4, 2015 (Certificate # 337015)
6. Kosuke Ishii Award (Dean’s Award for Industry Education Innovation), School of Engineering, Stanford, 2013
7. National Academy of Engineering, “For contributions to dynamics and rheology of complex fluids, including polymeric liquids, vesicles, and fiber suspensions”, 2013
8. Lester Levi Carter Endowed Professorship, Stanford, 2011
9. E. C. Bingham Medal (for Outstanding Contributions to Rheology), Society of Rheology, 2011
10. Ronald Probstein Lecturer in Engineering Science, MIT, March, 2011
11. Associate Editor, *Physical Review Fluids*, January, 2016 – present

12. Editorial Board, *Polymers* June 2009 — January, 2016
13. Advisory Board, *Polymers* January, 2016 — present
14. Editorial Board, *Chemical Engineering Communications*. September 2008 — present
15. Editorial Board, *Korea-Australia Rheology Journal*, January, 2008 – present
16. Editorial Board, *Computational Particle Mechanics*, Springer, 2013 – present
17. College of Engineering Distinguished Lecturer, University of Tennessee at Knoxville, October 29, 2007
18. Editorial Board *Physics of Fluids*, January, 2006 — December 31, 2015
19. Stanley Katz Lecturer, Chemical Engineering Department, City College of New York, NY NY, February, 2004
20. Hougou Professor, Department of Chemical Engineering, University of Wisconsin, Madison, January - June, 2004
21. Stanley Corrsin Lectureship, Department of Chemical and Biomolecular Engineering, The Johns Hopkins University, Baltimore, Md., October, 2003
22. Merck Distinguished Lecturer, Department of Chemical Engineering, Rutgers, March, 2003
23. 2001 Van Ness Lectureship, Department of Chemical Engineering, Rensselaer Polytechnic Institute, October, 2001
24. Fellow of the American Physical Society, September, 2000
25. 1999 Thiele Lectureship, Department of Chemical Engineering, Notre Dame University, South Bend, IN
26. 1998 Curtis W. McGraw Research Award from the American Society of Engineering Education
27. Editor's Choice Award and Second Prize, 1997 National Library of Poetry North American Poetry Competition
28. W.M. Keck Foundation Engineering Teaching Excellence Award, 6/94
29. Camille and Henry Dreyfus Teacher-Scholar Award, 5/94
30. David and Lucile Packard Fellow in Science and Engineering, 10/91—10/96
31. NSF Presidential Young Investigator 9/90—9/95
32. Francois N. Frenkiel Award 1989, Division of Fluid Dynamics, American Physical Society
33. NATO Postdoctoral Fellowship (for study in Cambridge, Eng.), 1986
34. Teaching Assistant of the Year, Chemical Eng. Department, Stanford, 1982
35. Stanford Dean's Fellowship, 1981
36. Xerox Award for the Best Undergraduate Chemical Engineering Thesis, Princeton University, 1981
37. Phi Beta Kappa, 1981—present
38. Tau Beta Pi, 1980—present
39. Princeton Academic Scholarship, 1977—81

Primary Professional Activities

1. Associate Editor, *Physical Review Fluids*, January, 2016 – present
2. USNCTAM Member: 2012-2016; renewed 2016 – 2020
3. Congress Committee, International Union of Theoretical and Applied Mechanics, November, 1, 2016 – October 31, 2020 (second 4 year term)
4. National Academy of Engineering, *Fluid Mechanics/Transport and Rheology Membership Committee*, Chemical Engineering Section, 2014 – present
5. Academic Program Review Committee, Department of Chemical and Biomolecular Engineering, University of Delaware, 2019
6. AIChE Awards Selection Subcommittee, 2019-2021

Archival Journal Publications (Google Scholar H-index 59; i10-index 159; 6/1/2020)

1. Prud'homme, R.K. and Shaqfeh, E.S.G., "Effect of Elasticity on the Mixing Torque Requirements for Rushton Turbine Impellers", *A.I.Ch.E. J.* **30**, 485,(1984)
2. Shaqfeh, E.S.G. and Acrivos, A., "The Effects of Inertia on the Buoyancy-Driven Convection Flow in Settling Vessels Having Inclined Walls", *Phys. Fluids* **29**, 3935,(1986)

3. Shaqfeh, E.S.G. and Acrivos, A., "The Effects of Inertia on the Stability of the Convective Flow in Inclined Particle Settlers", *Phys. Fluids* **30**, 960,(1987)
4. Shaqfeh, E.S.G. and Acrivos, A., "Enhanced Sedimentation in Vessels with Inclined Walls: Experimental Observations", *Phys. Fluids* **30**, 1905,(1987)
5. Shaqfeh, E.S.G. and Koch, Donald L., "The Effects of Hydrodynamic Interactions on the Orientation of Axisymmetric Particles Flowing Through a Fixed Bed of Spheres or Fibers", *Phys. Fluids* **31**, 728 (1988)
6. Shaqfeh, E.S.G. and Koch, Donald L., "The Combined Effects of Hydrodynamic Interactions and Brownian Motion on the Orientation of Axisymmetric Particles Flowing Through Fixed Beds", *Phys. Fluids* **31**, 2769 (1988)
7. Acrivos, A. and Shaqfeh, E.S.G., "The Effective Thermal Conductivity and Elongational Viscosity of a Non-Dilute Suspension of Aligned Slender Rods", *Phys. Fluids* **31**, 1841 (1988)
8. Shaqfeh, E.S.G., "A Non-Local Theory for the Heat Transport in Composites Containing Highly Conducting Fibrous Inclusions", *Phys. Fluids* **31**, 2405 (1988)
9. Shaqfeh, E.S.G., Larson, R.G., and Fredrickson, G.H., "The Stability of a Falling Viscoelastic Film at Low to Moderate Reynolds Numbers", *J. Non-Newtonian Fluid Mech.* **31**, 87 (1989)
10. Koch, D.L. and Shaqfeh, E.S.G., "The Instability of a Dispersion of Sedimenting Spheroids", *J. Fluid Mech.* **209**, 521 (1989)
11. Jurgensen, C.W. and Shaqfeh, E.S.G., "Nonlocal Transport Models of the Self-Consistent Potential Distribution in a Plasma Sheath with Charge Transfer Collisions", *J. Appl. Phys.* **64**, 6200 (1988)
12. Koch, D.L. and Shaqfeh, E.S.G., "Screening in Sedimenting Suspensions", *J. Fluid Mech.* **224**, 275–303 (1991)
13. Fredrickson, G.H. and Shaqfeh, E.S.G., "Heat and Mass Transport in Composites of Aligned Slender Fibers", *Phys. Fluids* **1**(1), 3 (1989)
14. Shaqfeh, E.S.G. and Jurgensen, C.W., "Simulation of Reactive Ion Etching Pattern Transfer", *J. Appl. Phys.* **66**(10), 4664 (1989)
15. Jurgensen, C.W. and Shaqfeh, E.S.G. "A Kinetic Theory of Bombardment-Induced Interface Evolution", *J. Vac. Sci. Tech. B* **7**(6), 1488 (1989)
16. Jurgensen, C.W. and Shaqfeh, E.S.G., "Factors Controlling the Etching Rate and Process Latitudes of the O₂ Reactive Ion Etching Pattern Transfer Step in Multilevel Lithography", *Polymer Eng. Sci.* **29**(13), 878 1989
17. Shaqfeh, E.S.G. and G.H. Fredrickson, "The Hydrodynamic Stress in a Suspension of Rods", *Phys. Fluids A* **2**(1), 7 (1990)
18. Muller, S.J., R.G. Larson, and E.S.G. Shaqfeh, "A Purely Elastic Transition in Taylor-Couette Flow", *Rheol. Acta* **28**, 499 (1989)
19. R.G. Larson, E.S.G. Shaqfeh, and S.J. Muller, "A Purely Elastic Instability in Taylor-Couette Flow", *J. Fluid Mech.* **218**, 573-600 (1990)
20. Shaqfeh, E.S.G. and D.L. Koch, "Orientational Dispersion of Fibers in Extensional Flows", *Phys. Fluids A* **2**(7) 1077 (1990)
21. Frattini, P.L., E.S.G. Shaqfeh, J.L. Levy, and D.L. Koch, "Observations of Axisymmetric Tracer Particle Orientation During Flow Through a Dilute Fixed Bed of Fibers", *Phys. Fluids A* **3**(11), 2516 (1991)
22. Koch, D.L. and E.S.G. Shaqfeh, "The Average Rotation Rate of a Fiber in the Linear Flow of a Semi-Dilute Suspension", *Phys. Fluids A* **2**(12) 2093, (1990)
23. Joo, Y.L. and E.S.G. Shaqfeh, "Viscoelastic Poiseuille Flow Through a Curved Channel: A New Elastic Instability", *Physics of Fluids A* **3**(7), 1691 (1991)
24. Joo, Y.L. and E.S.G. Shaqfeh, "A Purely Elastic Instability in Dean and Taylor-Dean Flow", *Physics of Fluids A* **4**(3), 524 (1992)
25. Shaqfeh, E.S.G., S.J. Muller, and R.G. Larson, "The Effects Finite Gap and Dilute Solution Properties on the Viscoelastic Instability in Taylor-Couette Flow", *J. Fluid Mech.* **235** 285-317 (1992) [Abstracted in *Applied Mechanics Reviews* **45**(5) 477 (1992)]
26. Koch, D.L. and E.S.G. Shaqfeh, "Averaged Equation and Diagrammatic Approximations to the Average Concentration of a Tracer Dispersed by a Gaussian Random Velocity Field", *Physics of Fluids A* **4**(5), 887 (1992)

27. Singh, V.K., E.S.G. Shaqfeh, and J. McVittie, "Simulation of Profile Evolution in Silicon RIE with Re-emission and Surface Diffusion", *J. Vac. Sci. Techn. B* **10**(3), 1091 (1992)
28. Shaqfeh, E.S.G. and D.L. Koch, "Polymer Stretch in Dilute Fixed Beds of Spheres or Fibers", *J. Fluid Mech.* **244**, 17-54 (1992)
29. Joo, Y.L. and E.S.G. Shaqfeh, "The Effects of Inertia on the Viscoelastic Dean and Taylor-Couette Flow Instabilities with Application to Coating Flows", *Physics of Fluids A* **4**(11) 2415-2431 (1992)
30. Singh, V. K and E.S.G. Shaqfeh, "Effect of Surface Re-emission on the Surface Roughness of Film Growth in Low Pressure Chemical Vapor Deposition", *J. Vac. Sci. Techn. A* **11** (3) May/June 557-568 (1993)
31. Muller, S.J., E.S.G. Shaqfeh and R.G. Larson, "Experimental Studies of the Onset of Oscillatory Instability in Viscoelastic Taylor-Couette Flow", *J. Non-Newt. Fluid Mech.*, **46**(2+3), 315-330 (1993)
32. R.R. Sundararajkumar, Koch, D.L., and E.S.G. Shaqfeh, "The Extensional Viscosity and Effective Thermal Conductivity of a Dispersion of Aligned Disks", *Phys. of Fluids*, **6** (6) June 1955-62 (1994)
33. Larson, R.G., S.J. Muller and E.S.G. Shaqfeh, "The Effects of Fluid Rheology on the Elastic Taylor-Couette Instability", *J. Non-Newtonian Fluid Mech.* **51**, 195-225 (1994)
34. Joo, Y.L. and E.S.G. Shaqfeh, "Observations of Purely Elastic Instabilities in the Taylor-Dean Flow of a Boger Fluid", *J. Fluid Mech.* **262**, 27-73 (1994)
35. Singh, V.K., E.S.G. Shaqfeh, and J. P. McVittie, "A Study of Silicon Etching in CF_4 / O_2 to Establish Surface Re-emission as the Dominant Transport Mechanism", *J. Vac. Sci. Tech. B* **12**(5) Sep/Oct 2952-2962 (1994)
36. Evans, A.R., E.S.G. Shaqfeh, and P. L. Frattini, "Observations of Polymer Conformation During Flow Through a Fixed Fiber Bed", *J. Fluid Mech.* **281** pp 319-356 (1994)
37. Mackaplow, M., E.S.G. Shaqfeh and R. Schiek, "A Numerical Study of Heat and Mass Transport in Fiber Suspensions", *Proc. Roy. Soc. London A* **447** pp 77-110 (1994)
38. Rahnama, M., D.L. Koch, and E.S.G. Shaqfeh, "The Effect of Hydrodynamic Interactions on the Orientation Distribution of Fiber Suspensions Subject to Simple Shear Flow", *Physics of Fluids A* **7**(3) pp 487-506 (1995)
39. Dris, I.M. and E.S.G. Shaqfeh, "On Purely Elastic Instabilities in Eccentric Cylinder Flows", *Journal of Non-Newt. Fluid Mech* **56** pp. 349-360 (1995)
40. Shaqfeh, E.S.G., "Purely Elastic Instabilities in Viscometric Flows", *Ann. Rev. Fluid Mech.* **28**: 129-185 (1996)
41. Schiek, R. and E.S.G. Shaqfeh, "A Nonlocal Theory for Stress in Bound, Brownian Suspensions of Slender, Rigid Fibers" *J. Fluid Mech.* **296**, pp 271-324 (1995)
42. Mackaplow, M. and E.S.G. Shaqfeh, "A Numerical Study of the Rheological Properties of Suspensions of Rigid, Non-Brownian Fibers", *J. Fluid Mech.* **329**, 155-186 (1996)
43. Mosler, A. and E.S.G. Shaqfeh, "The Conformation Change of Model Polymers in Stochastic Flow Fields: Flow Through Fixed Beds", *Physics of Fluids* **9**(5), 1222-1234 (1997)
44. Evans, A.R. and E.S.G. Shaqfeh, "The Conformation of Semi-Rigid Polymers During Flow Through a Fixed Fiber Bed", *J. Non-Newtonian Fluid Mech.* **64** pp. 95-140 (1996)
45. Grillet, A.M. and E.S.G. Shaqfeh, "Viscoelastic instabilities in recirculation flows of Boger fluids", *J. Non-Newtonian Fluid Mech.* **64** pp. 141-155 (1996)
46. Doyle, P., E.S.G. Shaqfeh, and A.P. Gast, "Dynamic simulation of freely draining, flexible polymers in steady linear flows", *J. Fluid Mech* **334** pp 251-291 (1997)
47. Schiek, R.L. and E.S.G. Shaqfeh, "Cross streamline migration of slender, Brownian fibers in plane Poiseuille flow", *J. Fluid Mech.* **332** pp. 23-39 (1997)
48. Herzhaft, B., Guazzelli, E., Mackaplow, M.B., and Shaqfeh, E.S.G., "An experimental investigation of the sedimentation of a dilute fiber suspension", *Phys. Rev. Lett.* **77**(2) pp. 290-293 (1996)
49. Schiek, R. L. and E.S.G. Shaqfeh, "Oscillatory shear of a confined fiber suspension", *J. Rheol.* **41**(2) pp. 445-466 (1997)
50. Mosler, A.B. and E.S.G. Shaqfeh, "Drop breakup in flow through fixed beds", *Phys. Fluids* **9**(11) pp. 3209-3226 (1997)
51. Dris, I. M. and E.S.G. Shaqfeh, "Flow of a viscoelastic fluid between eccentric cylinders: Impact on flow stability", *J. NonNewtonian Fluid Mech.* **80**(1) pp. 1-58 (1998)

52. Dris, I. M. and E.S.G. Shaqfeh, "Experimental and Theoretical Observations of Elastic Instabilities in Eccentric Cylinder Flows: Local versus Global Stability", *J. NonNewtonian Fluid Mech.* **80**(1) pp. 59-87 (1998)
53. Doyle, P.S., E.S.G. Shaqfeh and A.P. Gast, "The rheology of 'wet' polymer brushes via Brownian dynamics simulation: steady vs. oscillatory shear", *Phys. Rev. Lett.* 2/10/97 **78**(6) pp. 1182-1185
54. Levinson, J.A., E.S.G. Shaqfeh, M. Balooch, and A.V. Hamza, "The Ion-assisted Etching and Profile Development of Silicon in Chlorine", *J. Vac. Sci. Technol. A* **15**(4) pp. 1902-1912 (1997)
55. Mackaplow, M. and E.S.G. Shaqfeh, "A numerical study of the sedimentation of fiber suspensions", *J. Fluid Mech.* **376** pp. 149-182 (1998)
56. Levinson, J.A., A. V. Hamza, E.S.G. Shaqfeh, and M. Balooch, "The growth of *SiC* films via *C*₆₀ precursors and a model for the profile development of the silicon underlayer", *JVST A* **16**(4) Jul/Aug pp. 2385-2394 (1998)
57. Doyle, P., E.S.G. Shaqfeh, "Dynamic simulation of freely draining, flexible bead-rod chains: Start-up of Extensional and Shear flow" *J. NonNewt. Fluid. Mech.* **76** pp. 43-78 (1998) Erratum *J. NonNewt. Fluid Mech.* **92** pp. 275-278 (2000)
58. Doyle, P., E.S.G. Shaqfeh, G.H. McKinley, S.H. Spiegelberg, "Relaxation of Dilute Polymer Solutions in Extensional flow" *J. NonNewt. Fluid. Mech.* **76** pp. 79-110 (1998)
59. Doyle, P., E.S.G. Shaqfeh, A.P. Gast "Rheology of Polymer Brushes: A Brownian Dynamics Study" *Macromolecules* **31** (16), pp. 5474-5486 (1998)
60. Grillet, A., A.G. Lee, and E.S.G. Shaqfeh, "Observations of ribbing instabilities in elastic fluid flows with gravity stabilization" *J. Fluid Mech.* **399** pp. 49-83 (1999)
61. Kwan, T.C.B. and E.S.G. Shaqfeh, "Brownian dynamics simulations of the stress and molecular configuration of polymers in exponential and linearly-ramped shear flow" *J. NonNewtonian Fluid Mech.* **82** pp. 139-165 (1999)
62. E.S.G. Shaqfeh, "Report on the IUTAM symposium on viscoelastic fluid mechanics: effects of molecular modeling", *J. NonNewtonian Fluid Mech.* **82** pp. 127-134 (1999)
63. Grillet, A., B. Yang, B. Khomami, and E.S.G. Shaqfeh, "The modelling of viscoelastic lid-driven cavity flows using finite element simulations" *J. NonNewtonian Fluid Mech.* **88** pp. 99-131 (1999)
64. Levinson, J.A., E.S.G. Shaqfeh, A.V. Hamza and M. Balooch, "The Ion-assisted Etching and Profile Development of Silicon in Molecular and Atomic Chlorine", *J. Vac. Sci. Technol. B***18**(1) Jan/Feb pp. 172-190 (2000)
65. Hur, J., E.S.G. Shaqfeh and R.G. Larson, "Brownian dynamics simulations of single DNA molecules in shear flow", *J. Rheol.***44**(4) July/August 713-742 (2000)
66. Grillet, A.M., E.S.G. Shaqfeh, and B. Khomami, "Observations of the Viscoelastic Instabilities in Lid Driven Cavity Flow", *J. NonNewtonian Fluid Mech.*, **94**, 15 (2000)
67. Babcock, H., D. Smith, J. Hur, E.S.G. Shaqfeh, S. Chu, "Relating the Microscopic and Macroscopic Response of a Polymeric Fluid in a Shearing Flow", *Phys. Rev. Lett.* **85**, 2018-2021, (2000)
68. Hur, J., E.S.G. Shaqfeh, H. Babcock, D. Smith, S. Chu, "The dynamics of dilute and semidilute DNA solutions in the startup of shear flow", *Journal of Rheology* **45**, 421-450, (2001)
69. Kwan T., Woo, N., and E.S.G. Shaqfeh, "An Experimental and Simulation Study of Dilute Polymer Solutions in Exponential Shear Flow: Comparison to Uniaxial and Planar Extensional Flows", *Journal of Rheology*, **45**, 321-349 (2001)
70. Somasi, M., Komami, B., Woo, N., Hur, J. and E.S.G. Shaqfeh, "Brownian Dynamics Simulations of Bead-Rod and Bead-Spring Chains: Numerical Algorithms and Coarse Graining Issues", *J. NonNewtonian Fluid Mech.*, **108**, pp. 227-255 (2002)
71. Butler, J. and E.S.G. Shaqfeh, "Dynamic simulations of the inhomogeneous sedimentation of rigid fibers", *J. Fluid Mech.* **468** pp. 205-237 (2002)
72. Babcock, H., R. Teixeira, J. Hur, E.S.G. Shaqfeh, and S. Chu, "Visualization of molecular fluctuations near the critical point of the coil-stretch transition in polymer elongation", *Macromolecules* **36**(12) pp. 4544-4548 (2003)
73. Hur, J., E.S.G. Shaqfeh, H. Babcock, S. Chu, "Dynamics and Configurational Fluctuations of Single DNA Molecules in Linear Mixed Flows", *Phys. Rev. E.* **66**, 011915, (2002)
74. Schorr, P.A., T.C.B. Kwan, S.M. Kilbey II, E.S.G. Shaqfeh, M. Tirrell, "Shear forces between tethered polymer chains as a function of compression, sliding velocity, and solvent quality", *Macromolecules*, **36**(2) 389-398 (2003)

75. Olson, D.J., J.M. Johnson, P.D. Patel, E.S.G. Shaqfeh, S.G. Boxer, and G.G. Fuller, "Electrophoresis of DNA Adsorbed to a Cationic Supported Bilayer", *Langmuir*, **17**, 7396-7401 (2001)
76. Lee, A., E.S.G. Shaqfeh, B. Khomami, "A study of viscoelastic free surface flows by the finite element method: Hele-Shaw and slot coating flows", *J. NonNewtonian Fluid Mech.*, **108**, pp. 327-362 (2002)
77. Patel, P., E.S.G. Shaqfeh, J. Butler, V. Christini, J. Blawdewicz, M. Loewenberg, "Drop breakup in the flow through fixed fiber beds: An experimental and computational investigation", *Phys. Fluids*, **15**(5), pp. 1146-1157 (2003)
78. Patel, P., E.S.G. Shaqfeh, "A computational study of DNA separations in sparse disordered and periodic arrays of posts", *J. Chem. Phys.* **118**(6) pp, 2941-2951 (2003)
79. Shaqfeh, E.S.G., G. H. McKinley, N. Woo, D. A. Nguyen, T. Sridhar, "On the polymer entropic force singularity and its relation to extensional stress relaxation and filament recoil", *Journal of Rheology* **48**(1) 209-221 (2004)
80. Woo, N., E.S.G. Shaqfeh, B. Khomami "Effect of confinement on the dynamics and rheology of dilute DNA solutions. I. Entropic spring force under confinement and numerical algorithm", *Journal of Rheology* **48**(2) 281-298 (2004)
81. Woo, N., E.S.G. Shaqfeh, B. Khomami "Effect of confinement on the dynamics and rheology of dilute DNA solutions. II. Effective rheology and single chain dynamics", *J. Journal of Rheology* **48**(2) 299-318 (2004)
82. Lee, A.G., E.S.G. Shaqfeh, "Viscoelastic Effects on Interfacial Dynamics in Air-Fluid Displacement under Gravity Stabilization", *J. Fluid Mechanics* **531**, pp. 59-83 (2005)
83. Butler, J.E., E.S.G. Shaqfeh, "Brownian dynamics simulations of a flexible polymer chain which includes continuous resistance and multi-body hydrodynamic interactions", *J. Chem. Phys.* **122**, 014901 (2005)
84. Woo, N.J., E.S.G. Shaqfeh, "The Configurational Phase Transitions of Flexible Polymers In Mixed Flows", *J. Chem. Phys.* **119**(5) pp. 2908-2914 (2003)
85. Schroeder, C.M., H. Babcock, E.S.G. Shaqfeh, S. Chu, "Observation of Polymer Configuration Hysteresis in Extensional Flow", *Science*, 9/12/2003, **301**, Issue 5639 pp. 1515-1519
86. Paschkewitz, J.S., Y. Dubief, E.S.G. Shaqfeh and P. Moin, "Numerical simulation of turbulent drag reduction using rigid fibres", *J. Fluid Mech.* **518** pp. 281-317 (2004)
87. Dubief, Y., V.E. Terrapon, C.M. White, E.S.G. Shaqfeh, P. Moin, and S. K. Lele, "New answers on the interaction between polymers and vortices in turbulent flows", *Flow, Turbulence and Combustion*, **74** pp. 311-329 (2005)
88. Terrapon, V.E., Y. DuBief, P. Moin, E.S.G. Shaqfeh, and S.K. Lele, "Simulated polymer stretch in a turbulent flow using Brownian dynamics", *J. Fluid Mech.* **504**, pp. 61-71 (2004)
89. Dubief, Y., C.M. White, V.E. Terrapon, E.S.G. Shaqfeh, P. Moin, and S. K. Lele, "On the coherent drag reducing and turbulence enhancing behavior of polymers in wall flows", *J. Fluid Mech* **514**, pp. 271-280 (2004)
90. Teixeira, R., H.P. Babcock, E.S.G. Shaqfeh, and S. Chu, "Shear thinning and tumbling dynamics of single polymers in the flow-gradient plane", *Macromolecules*, **38**(2), pp. 581-592 (2005) (also see *Macromolecules*, cover, April 5, 2005 **38** (7))
91. Schroeder, C., E.S.G. Shaqfeh, and S.Chu, "The Effect of Hydrodynamic Interactions on the Dynamics of DNA in Extensional Flow: Simulation and Single Molecule Experiment", *Macromolecules*, **37**, pp. 9242-9256 (2004)
92. Bhatara, G., E.S.G. Shaqfeh, and B. Khomami, "Influence of viscoelasticity on the interfacial dynamics of air displacing fluid flows – A computational study", *J. NonNewtonian Fluid Mech.* **122** pp.313-332 (2004)
93. Shaqfeh, E.S.G, "The Dynamics of Single-Molecule DNA in Flow", *J. NonNewtonian Fluid Mechanics* **130**, pp. 1-28 (2005)
94. Saintillan, D., E. Darve, E.S.G. Shaqfeh, "A Smooth Particle-Mesh Ewald Algorithm for Stokes' Suspension Simulations: The Sedimentation of Fibers", *Phys. Fluids*. **17** 033301 (2005)
95. Schroeder, C., R. Teixeira, E.S.G. Shaqfeh, and S.Chu, "Dynamics of DNA in the flow-gradient plane of steady shear flow: Observations and simulations", *Macromolecules*, **38**(5) 1967-1978 (2005)
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15. Yves Dubief, Chris White, Vincent E. Terrapon, Eric S.G. Shaqfeh, Sanjiva Lele, Parviz Moin, "Numerical Simulation of the High Drag Reduction Regime in Polymer Solutions", Proceedings of FED03, 203 Joint ASME/JSME Fluids Engineering Symposium on Friction Drag Technology, July 6-10, 2003, Honolulu, Hawaii.
16. Gandharv Bhatara, Eric S.G. Shaqfeh, Bamin Khomami "A computational study of the interfacial dynamics of free surface viscoelastic fluid flows", Proceedings of the XIVth International Congress on Rheology, Edited by The Korean Society of Rheology, Aug. 22-27, 2004, Seoul, Korea.
17. Eric S.G. Shaqfeh, Yves Dubief, Costas Dimitropoulos, John Paschkewitz, Parviz Moin, Sanjiva Lele, "Solution rheology and its role in the mechanisms of turbulent drag reduction", Proceedings of the XIVth International Congress on Rheology, Edited by The Korean Society of Rheology, Aug. 22-27, 2004, Seoul, Korea.
18. Charles M. Schroeder, Eric S.G. Shaqfeh, Rodrigo Teixeira, Steven Chu, "Non-equilibrium behavior of DNA molecules in flows of dilute and concentrated solutions", Proceedings of the XIVth International Congress on Rheology, Edited by The Korean Society of Rheology, Aug. 22-27, 2004, Seoul, Korea.
19. David Saintillan, Eric Darve, Eric S.G. Shaqfeh, "Microstructure in the sedimentation of anisotropic and deformable particles", Proceedings of IMECE2005, 2005 ASME ASME Fluids Engineering Division FED Vol. 261, pp. 797-803 International Mechanical Engineering Congress & Exposition, Orlando, FL, Nov. 5-11, 2005.
20. David Saintillan, Eric Darve, Eric S.G. Shaqfeh, "Induced-charge electrophoresis in suspensions of rod-like particles: Theory and simulations", Proceedings of IMECE2005, 2005 ASME, ASME Fluids Engineering Division FED Vol. 261, pp. 251-256 International Mechanical Engineering Congress & Exposition, Orlando, FL, Nov. 5-11, 2005.
21. M. Shin, E.S.G. Shaqfeh, "Viscoelastic turbulent boundary layer with near wall injection of polymer molecules", Center for Turbulence Research, Annual Research Briefs, 2005, pp. 389-406.
22. J. R. Prakash and E.S.G. Shaqfeh, "Conference Report on the International Workshop on Mesoscale and Multiscale Description of Complex Fluids – IWMMCOF '06", Appl. Rheol., **16**, 340-341, 2006.
23. M. Denn, E. Meiburg, J. Morris, E.S.G. Shaqfeh, T.M. Squires, "Report on 'the Symposium 'Interactions for Dispersed Systems in Newtonian and Viscoelastic Fluids'", (Symposium in Guanajuato, Mexico, March, 2006 w/ preamble by Roberto Zenit and George M. Homsy). Phys. of Fluids **18**, 121501 (2006)
24. O. Marxen, G. Iaccarino, E.S.G. Shaqfeh, "Numerical simulations of hypersonic boundary-layer instability using different gas models, Center for Turbulence, Annual Research Briefs 2007 pp. 15-27
25. E.S.G. Shaqfeh and R. Prakash Jagadeeshan, "International Workshop on Mesoscale and Multiscale Description of Complex Fluids (IWMMCOF'06), Prato, Italy, July 5-8, 2006. Journal of NonNewtonian Fluid Mechanics **149** pp. 1-2 (2008)
26. O. Marxen, G. Iaccarino, E.S.G. Shaqfeh, "Linear and non-linear disturbance evolution in a compressible boundary-layer with localized roughness"; Seventh IUTAM Symposium on Laminar-Turbulent Transition, June 23-26, 2009, KTH Royal Institute of Technology, Stockholm, Sweden
27. O. Marxen, T. Magin, G. Iaccarino, E.S.G. Shaqfeh, "Hypersonic boundary-layer instability with chemical reactions", 48th AIAA Aerospace Sciences Meeting. 4 – 7 Jan 2010, Orlando, Florida.
28. Shirin Ghaffari, Olaf Marxen, Gianluca Iaccarino and Eric S.G. Shaqfeh, "Numerical simulations of hypersonic boundary-layer instability with wall blowing", 48th AIAA Aerospace Sciences Meeting. 4 – 7 Jan 2010, Orlando, Florida.
29. "Micro- and Nanofluidic Simulations for BWA Sensing and Blood Additive Development", featured as *Technology Focus*, AHPARC Quarterly, Vol. 1, Issue 4 pp. 5-7, November, 2009. (Report on work by Eric Shaqfeh & Eric Darve)
30. H. Zhao, E.S.G. Shaqfeh, "The Dynamics of Vesicles in Shear Flow", Center for Turbulence Research, Annual Research Briefs, 2009, p. 445
31. O. Marxen, G. Iaccarino, E.S.G. Shaqfeh, "Uncertainty quantification for linear and weakly non-linear supersonic boundary-layer instability" Center for Turbulence Research, Annual Research Briefs, 2009, p. 105
32. H. Zhao, E.S.G. Shaqfeh, "Numerical simulation of the margination of platelets in the microvasculature", Center for Turbulence Research, Annual Research Briefs, 2010, pp. 365-374
33. O. Marxen, G. Iaccarino, and E.S.G. Shaqfeh, "A numerical method to simulate hypersonic boundary layers with finite-rate chemistry, Center for Turbulence Research, Annual Research Briefs, 2010

34. O. Marxen, G. Iaccarino, E.S.G. Shaqfeh, “Numerical simulations of hypersonic boundary-layer instability with localized roughness”, 49th AIAA Aerospace Sciences Meeting. 4 – 7 Jan 2011, Orlando, Florida AIAA Paper 2011 – 0567.
35. L. Guglielmini, A. Kushwaha, E. Shaqfeh and H. A. Stone, “Buckling transitions of a beam at a stagnation point”, Annual Research Brief 2011, Center for Turbulence Research, Stanford University pp: 405-414
36. J. Barakat, E.S.G. Shaqfeh, “Squeezing of vesicles through narrow constrictions shows promise for targeted drug delivery”, Phys.Org News, February, 14, 2017, <https://phys.org/news/2017-02-vesicles-narrow-constrictions-drug-delivery.html>

Non-Technical Publications

1. Retecki, R. and E.S.G. Shaqfeh, “Two Strange Guys with Different Stories ” (Book of Poetry), Small Poetry Press, 362 Odin Place, Pleasant Hill, CA 94523 (Copyright, 1995)
2. Shaqfeh, E.S.G., “The Broken Fences”, poem in *Tracing Shadows*, ISBN 1-57553-354-5, The National Library of Poetry (publisher), (Summer 1997) Also on audio tape in *The Sound of Poetry* by same publisher.
3. Shaqfeh, E.S.G., “Coiled”, in *America at the Millenium*, ISBN 1-58235-510-X, The International Library of Poetry, Spring 2000.

Patents

1. Schroeder, C.M.S, H. Babcock, E.S.G. Shaqfeh, S. Chu ” Controlled Stagnation Point Device and Uses Thereof” U.S. Pat. No. 7,013,739; Issued March 21, 2006
2. Allison, K., D. Fork, E.S.G. Shaqfeh, S. E. Solberg, “Co-extruded compositions for high aspect ratio structures”, U.S. Patent Application No. 20070344-US-NP; (Applied 10/2007) Pub. No.: US 2009/0107546 A1 (April 30,2009)
3. Shah, P., E.S.G. Shaqfeh, G. Iaccarino, “Methods and Systems for Simulating Nanoparticle Flux” (STAN-1212PRV; S15-071), Filed March 11, 2016; Serial No. 62/306,906

Major Invited Lectures

1. Shaqfeh, E.S.G. “*Simulation of Profile Evolution in Plasma RIE with Surface Transport*” 1992 Gordon Research Conference on Plasma Chemistry (Invited Lecture) Colby Sawyer College South, New London, NH, 8/13/92
2. Shaqfeh, E.S.G., “*Low Pressure Transport in Silicon RIE: Pattern Transfer and Surface Roughness*”, Invited Talk, 1992 Annual American Vacuum Society Meeting, Chicago, Ill. Plasma Science: Pattern Transfer Session, 11/11/92
3. Shaqfeh, E.S.G., “*Purely Elastic Instabilities in Eccentric Cylinder Flows*”, Keynote Address, Session on Linear Stability, Eighth International Workshop on Numerical Methods in Non-Newtonian Flows, Cape Cod, Massachussets, 11/21-24/93
4. Shaqfeh, E.S.G., *Orientalional and Configurational Diffusion in the Slow Flows of Particles and Polymers* (Invited Leadoff Speaker) IUTAM Symposium on Hydrodynamic Diffusion of Suspended Particles, Session 4, Estes Park, Colorado, Organizer: Prof. Rob Davis, University of Boulder, Boulder, Co. 22-25, July, 1995.
5. Shaqfeh, E.S.G. *The fluid mechanical properties of fiber suspensions: Local and nonlocal transport*, NATO ASI Mobile Particulate Systems, Cargese, Corsica, (2 Invited Lectures), 7/14-15/94.
6. E.S.G. Shaqfeh, “Rheology and kinetic theory of flowing fiber suspensions from dilute through semi-dilute concentrations”, XIIth International Congress on Rheology, Quebec City, Quebec, Canada, Aug. 18-23, 1996 (Invited Lecture in Special Fiber Symposium)
7. E.S.G. Shaqfeh, “Developing constitutive equations using Brownian dynamics simulations: viscous versus Brownian stresses”, Isaac Newton Institute Programme on Dynamics of Complex Fluids – Workshop on Constitutive Relations and Their Application to Complex Flows, April 15-19, 1996 (Invited Contribution)
8. E.S.G. Shaqfeh, “Using Brownian dynamics simulations to investigate the rheology of tethered polymer layers”, Isaac Newton Institute Programme on Dynamics of Complex Fluids – Workshop on Constitutive Relations and Their Application to Complex Flows, April 15-19, 1996 (Invited Contribution)

9. E.S.G. Shaqfeh, "Purely elastic instabilities in viscometric and nonviscometric flows", Invited Plenary Speaker, 49th Annual Meeting of the APS Division of Fluid Dynamics, Syracuse, NY, Nov. 24-29, 1996
10. Shaqfeh, E.S.G. *Purely elastic instabilities in viscometric and nearly viscometric flows* and *Purely elastic instabilities in nonviscometric and interfacial flows*, CNRS-ASI on Elasticity and Viscoelasticity: non-linear instabilities in solids and fluids, Cargese, Corsica, (2 Invited Lectures), 7/15-26/97.
11. Shaqfeh, E.S.G., "Fingering in the Fluid-Fluid Displacement of Highly Elastic Fluids", 13th Australasian Fluid Mechanics Conference, Melbourne, Australia, Dec. 13-18, 1998 (Invited Plenary Talk).
12. Shaqfeh, E.S.G., "Yield Kinetics and Feature Evolution in $Ar+$ Beam Etching with Dosing of Cl/Cl_2 Mixtures", Annual AVS Meeting, Seattle, Washington, October 25-29, 1999 (Invited Keynote in Profile Evolution Section)
13. Shaqfeh, E.S.G., "Ribbing in the Fluid-Fluid Displacement of Highly Elastic Fluids", IUTAM Symposium on NonLinear Waves in Multiphase Flows, Univ. of Notre Dame, South Bend, Indiana, Session IV, 7/8/99 (Invited Presentation)
14. Shaqfeh, E.S.G., "Brownian Dynamics Simulations of DNA Molecules in Shear Flow", Thiele Lecture, Dept. of Chem. Engineering, Univ. of Notre Dame, South Bend, Ind. September 28, 1999.
15. Shaqfeh, E.S.G., "Brownian Dynamics Simulations of Single DNA Molecules in Steady and Transient Shear Flow", David Boger Birthday Symposium, Melbourne, Australia, Nov. 15-16, 1999 (Invited Presentation)
16. Shaqfeh, E.S.G., "The Dynamics and Rheology of DNA Molecules in Steady and Time-Varying Shear Flow", Third Joint US-China Chemical Engineering Conference, Beijing, China Sept. 25-28, 2000 (Invited Presentation)
17. E.S.G. Shaqfeh, "Computer simulation of stochastic strong flows", Novel Numerical Methods in Fluid Mechanics, Annual AIChE Meeting, Los Angeles, Nov. 12-17, 2000 (Invited Presentation)
18. E.S.G. Shaqfeh, "The Dynamics of DNA in Flow", First International Symposium on Applied Rheology, Applied Rheology Center, Korea Science and Engineering Foundation, Seoul, Korea, January 18-19, 2001 (Invited Plenary Talk)
19. E.S.G. Shaqfeh, "Purely Elastic Instabilities in Bulk and Interfacial Flows", Second Biannual Chemical Engineering Conference for Collaborative Research in the Eastern Mediterranean, Ankara, Turkey, May 20-24, 2001
20. E.S.G. Shaqfeh, Van Ness Lectures (2), "The Dynamics of DNA in Flow; Parts I and II", Rensselaer Polytechnic Institute, Troy, NY, October 18-19, 2001
21. Shaqfeh, E.S.G., J. Hur, V. Terrapon, and P. Moin, "Toward a Molecular Interpretation of Turbulent Drag Reduction", 73rd Annual Meeting of the Society of Rheology, A Symposium in Honor Of William Schowalter, October 21-25, 2001, Bethesda, Md. (Invited Presentation)
22. E.S.G. Shaqfeh, "DNA Dynamics in Mixed Flows with Application to Scission for Sequencing", Alpha Chi Sigma Symposium, Annual AIChE Meeting, Reno, Nevada, November, 6, 2001
23. E.S.G. Shaqfeh, "The Dynamics of DNA in Mixed Flows with Application to Scission in Contraction Flow", (Invited Presentation) Gordon Research Conference on Colloidal, Macromolecular, and Polyelectrolyte Solutions, Ventura, CA., February 6, 2002
24. E.S.G. Shaqfeh, "The Dynamics of DNA in Mixed Flows with Application to Scission in Contraction Flow", (Invited Presentation) Meeting of the American Physical Society, March 18, 2002, Indianapolis, Indiana, Session B2 (Single Molecule DNA and Complex Fluid Dynamics)
25. E.S.G. Shaqfeh, Plenary Lecture, "Do we really understand the coil-stretch transition and extensional stresses in polymer solutions?", 74th Annual Meeting of the Society of Rheology, Oct. 13-17, 2002, Minneapolis, MN.
26. E.S.G. Shaqfeh, Plenary Lecture, "Progress and Prospects in Single Molecule Dynamics Studies", Fundamental Research in Fluid Mechanics Group, Annual Meeting of the AIChE, Indianapolis, Ind., Nov. 3-8, 2002, Minneapolis, MN.
27. E.S.G. Shaqfeh, Plenary Lecture, "The Fast Flow Dynamics of Polymer Solutions as Calculated Using Implicit Configurational Time Stepping Schemes", 2003 SIAM Conference on Computational Science and Engineering", Feb. 10-13, 2003, Hyatt Regency Islandia Hotel and Marina, San Diego, CA.
28. E.S.G. Shaqfeh, Merck Distinguished Lectureship, "Progress and Prospects in Flow Dynamics Studies of Single Molecule DNA", Department of Chemical Engineering, Rutgers University, March 20, 2003
29. E.S.G. Shaqfeh, "Large-Scale Simulation of Viscoelastic Effects in Coating Flows and Comparison to Experiments", Gordon Research Conference: CAE in Polymer Processing, Holiday Inn, Ventura, CA March 2-7, 2003 (Invited Presentation)

30. E.S.G. Shaqfeh, "The Dynamics of Single Molecule DNA in Shear, Mixed, and Extensional Flows", Stanley Corrsin Lectureship, Department of Chemical and Biomolecular Engineering, The Johns Hopkins University, Baltimore, Md., October 9, 2003
31. E.S.G. Shaqfeh, "Progress and Prospects in Understanding the Dynamics of DNA in Flow", Olav V. Hougen Lecture, Department of Chemical and Biological Engineering, The University of Wisconsin at Madison, January 22, 2004
32. E.S.G. Shaqfeh, "The Mechanisms of Turbulent Drag Reduction by Polymer Additives Determined from Numerical Simulation", Olav V. Hougen Lecture, Department of Chemical and Biological Engineering, The University of Wisconsin at Madison, March 8, 2004
33. E.S.G. Shaqfeh, "Progress and Prospects in Understanding the Dynamics of DNA in Flow", Stanley Katz Lectureship, Department of Chemical Engineering, The City College of New York, Ny, NY, February, 9, 2004
34. E.S.G. Shaqfeh, "Polymer-Induced Turbulent Drag Reduction and the Concept of Stochastic Strong Flows", American Physical Society, Annual Meeting, March 22-26, 2004 Montreal, CANADA. Invited Talk in Statistical and Nonlinear Physics Topical Group Session on "Shear-induced transitions and turbulence in complex fluids".
35. Eric S.G. Shaqfeh, "Solution rheology and its role in the mechanisms of turbulent drag reduction", Keynote address, XIVth International Congress on Rheology, Aug. 22-27, 2004, Seoul, Korea.
36. Eric S.G. Shaqfeh, "Ergodicity-Breaking and Conformational Hysteresis in the Stretching Dynamics of Polymers in Flow", Plenary Lecture, Australian-Korean Rheology Conference 2005, Cairns, Australia.
37. Eric S.G. Shaqfeh, "Issues in the Microfluidic Flows of Complex Fluids", Keynote Lecture, Australian-Korean Rheology Conference 2007, Jeju Island, Korea. Sept 17, 2007
38. Eric S.G. Shaqfeh, "Unique phenomena in the Microfluidic Flows of Polymers or Particles", Keynote Lecture, International Soft Matter Conference, Eurogress Aachen, Germany, Oct. 1-4, 2007
39. Eric S.G. Shaqfeh, "Progress and Prospects in Understanding Single Molecule Polymer Dynamics in Flow", College of Engineering Distinguished Lectureship, University of Tennessee at Knoxville, October 29, 2007
40. Eric S.G. Shaqfeh, "The Coil-Stretch Transition after More than Thirty Years", Invited Talk at the APS Division of Polymer Physics Symposium "Simple Views on Polymer Physics" at the American Physical Society Meeting in New Orleans, Louisiana (March 10 - 14, 2008) honoring P. G. de Gennes' contributions to the field of polymer physics
41. Eric S.G. Shaqfeh, "Simulating the Microfluidics of Nonspherical Particulate Suspensions", 2009 Conference on Computational Science and Engineering (CSE09), Invited Minisymposium: Multiscale Methods for Hydrodynamics at the Micro and Nano-scales: Fluid-Structure Interaction, Miami Hilton Hotel, Miami, Fla. March 2-6, 2009.
42. Eric S.G. Shaqfeh, "The Dynamics and Stability of the Microflows of Polarizeable, Colloidal Rod Suspensions", 7th New York Complex Matter Workshop, Cornell University, December 8, 2008. (Keynote Speaker)
43. Eric S.G. Shaqfeh, "The Microfluidics of NonSpherical Particulate Suspensions", The Physics and Chemistry of Microfluidics, Gordon Research Conference, Il Ciocco Hotel and Resort, Lucca, Italy, June 28, 2009 (Invited Leadoff Speaker).
44. Eric S.G. Shaqfeh, David H. Richter, Gianluca Iaccarino, "Wake stabilization in viscoelastic flow past a cylinder", Workshop on *Flow instabilities and turbulence in viscoelastic fluids*, Lorentz Center International Center for workshops in the Sciences, Leiden, Netherlands, 19 Jul 2010 through 23 Jul 2010 (Invited Keynote Speaker)
45. Eric.S. G. Shaqfeh, H. Zhao, A. Spann, "Platelet Margination in the Microvasculature", Ronald Probst Lecture, Department of Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, MA, March 10, 2011.
46. Eric S. G. Shaqfeh, "The local and nonlocal rheology of vesicle and capsule suspensions", The Bingham Lecture, Annual Society of Rheology Meeting, Cleveland, OH, October 11, 2011.
47. Eric S.G. Shaqfeh, "Computer Simulation of Vesicles and Vesicle Suspensions in Flow", Annual AIChE Meeting, Pittsburgh, PA October 28- November 2, 2012; Keynote Lecture, Complex Fluids Symposium, Area 1J.
48. Eric S.G. Shaqfeh "Computer Simulation of Vesicles and Vesicle Suspensions in Flow", Invited Lecture, Biological Complex Fluids – Softflow 2012, Cargese, France (Corsica Island), July 2, 2012
49. Eric S.G. Shaqfeh, "Vesicles and Vesicle Suspensions in Flow", Invited Keynote Lecture, International Symposium on Applied Rheology, Korea University, Seoul, Korea, May 23, 2013

50. Eric S.G. Shaqfeh, “The Flows of Fiber Suspensions”, 4 Lectures in school entitled ‘NonSpherical Particles and Aggregates in Fluid Flows’; CISM — International Centre for Mechanical Sciences Palazzo del Torso, Piazza Garibaldi, 18 33100 Udine, Italy; July 17-19, 2013
51. Eric S.G. Shaqfeh, H. Zhao, A. Spann, S. Fitzgibbon, V. Narsimhan, “How the dynamics of vesicle and capsule suspensions in flow may affect your bleeding time”, Active Fluids: Bridging Complex Fluids and Biofluids, Aspen Center for Physics, 2014 Winter Conference, Aspen, CO, January, 29, 2014 (Invited Lecture).
52. Eric S.G. Shaqfeh, “Finite Volume, Immersed Boundary Simulations of nonBrownian Particulate Suspensions in Viscoelastic Fluids: Shear Effects in Rheology and Sedimentation”, A Special Rheology Symposium In Honor of Roger Tanner On the Occasion of his 82nd Birthday, Vathy, Samos, Greece, July 1, 2015 (Plenary Lecture)
53. Eric S.G. Shaqfeh, “The Complex Rheology and Fluid Dynamics of Fracking Fluid Technology – Part 2: Shear Rheology and Sedimentation”, 2016 Monash Engineering Distinguished Lecture Series, Friday, 15 January, 2016, Monash University, Monash, AUSTRALIA
54. Eric S.G. Shaqfeh, “Suspended Particles in Complex Fluids: From Fracking Fluids to Swimming Worms”, Tickle Distinguished Lecture, Univ. of Tennessee at Knoxville, September 11, 2017
55. Eric S.G. Shaqfeh, “Suspended Particles in Complex Fluids: From Fracking Fluids to Swimming Worms”, 9th Australian-Korean Rheology Conference, University of Sydney, Australia, Dec. 1, 2017 (Plenary Lecture)
56. Eric S.G. Shaqfeh, “Suspended Particles in Complex Fluids: From Fracking Fluids to Swimming Worms”, Distinguished Guest Seminar, December 4, 2017, Monash University, Melbourne, AUSTRALIA
57. Eric S.G. Shaqfeh, “Suspended Particles in Complex Fluids: From Fracking Fluids to Swimming Worms”, Zhejiang Global Lecture Series, ‘Qiu Shi’ Lecture, May 14, 2018, Zhejiang University, Hangzhou, China
58. E.S.G. Shaqfeh, W. Murch, “How Can One Engineer Frac’ing Fluids to Support Solids?”, 2019 International Green Chemical Engineering Summit, Chinese Academy of Engineering, Hangzhou, China, March 24, 2019 (Plenary).
59. E.S.G. Shaqfeh, “Massively Parallel Methods for Immersed Boundary Simulations of Particles in Viscoelastic Fluids”, VI International Conference on Particle Based Methods: Fundamentals and Applications, PARTICLES 2019 (ECCOMAS Thematic Conference and IACM Conference), Barcelona, Spain, October 30, 2019 (Plenary)

Other Affiliations and Professional Activites (Last 10 Years)

1. Member of Fluid Mechanics Programming Committee, A. I. Ch. E. Annual Meeting, 5 year term, 11/90—11/95 re-elected to second 5 year term, 11/95 — 11/2000; Elected Vice-Chairman, 1996 — 1998, Chairman, 1998 — 11/2000. Re-elected to third 5 year term, 11/2003 — 11/2008 Re-Elected to fourth 5 year term, 11/2008 — 11/2013.
2. Advisory Board, School of Chemical and Biomolecular Engineering, Cornell University, Ithaca, 2004-2012
3. Department of Chemical and Biomolecular Engineering, Johns Hopkins University, Review Committee, 2016
4. Co-Organizer, IUTAM/AMERIMECH Symposium on “Computational Mechanics for Advanced Manufacturing”, Sibley Auditorium, UC Berkeley, May 30-31, 2017
5. Chemical and Biological Engineering Department, University of Tennessee, Knoxville, Board of Advisors, 2007 — 2017
6. External Review Committee, Chemical and Biological Engineering Department, University of Michigan, 2018

Other Seminars and Presentations

1. Shaqfeh, E.S.G. (speaker) and Acrivos, A., “*The Boycott Effect Revisited: The Influence of Inertia*”, Annual A.I.Ch.E. Conference, San Francisco, CA, Fluid Mechanics Section, 11/25/84
2. Shaqfeh, E.S.G., “*The Effects of Inertia on Inclined Gravity Sedimentation*”, Joint Fluid Mechanics Forum, U.C. Berkeley, Berkeley, CA, 7/19/85
3. Shaqfeh, E.S.G. (speaker) and Acrivos, A., “*The Effects of Inertia on Inclined Gravity Sedimentation*”, A.P.S. Division of Fluid Mechanics Conference, Tucson, AZ, 11/24-26/85

4. Shaqfeh, E.S.G. (speaker) and Acrivos, A., “*The Boycott Effect*”, IUTAM Symposium, *Fluid Mechanics in the Spirit of G.I.Taylor*, D.A.M.T.P., Cambridge, Eng., 3/24-28/86
5. Shaqfeh, E.S.G., “*The Effects of Inertia on Inclined Gravity Sedimentation*”, D.A.M.T.P., Cambridge, Eng., Fluid Mechanics Seminar, 4/15/86
6. Shaqfeh, E.S.G., “*The Effects of Inertia on Inclined Gravity Sedimentation*”, Institut für Strömungslehre and Wärmeübertragung, Technische Universität, Wien, Austria, Department Seminar, 10/10/86
7. Shaqfeh, E.S.G., “*The Effects of Inertia on Inclined Gravity Sedimentation*”, Department of Mathematics, University College London, London, Eng., Department Seminar, 11/10/86
8. Shaqfeh, E.S.G., “*The Effects of Hydrodynamic Interactions on the Orientation of Axisymmetric Particles in Two Simple Flows*”, Department of Chem. Eng., Stanford University, Stanford, CA, Department Seminar, 5/6/87
9. Shaqfeh, E.S.G., “*The Effects of Hydrodynamic Interactions on the Orientation of Axisymmetric Particles in Two Simple Flows*”, Department of Chem. Eng., Calif. Inst. of Tech., Pasadena, CA, Department Seminar, 5/7/87
10. Shaqfeh, E.S.G., “*The Effects of Hydrodynamic Interactions on the Orientation of Axisymmetric Particles Flowing Through Fixed Beds*”, School of Chem. Eng., Cornell University, Ithaca, NY, Department Seminar 9/29/87
11. Shaqfeh, E.S.G., “*The Effects of Hydrodynamic Interactions on the Orientation of Axisymmetric Particles Flowing Through Fixed Beds or Sedimenting*”, Department of Applied Mathematics, Harvard University, Cambridge, Mass. Department Seminar 10/7/87
12. Shaqfeh, E.S.G.(speaker) and D.L. Koch, “*The Effects of Hydrodynamic Interactions on the Orientation of Axisymmetric Particles Flowing Through a Fixed Bed of Spheres of Fibers*”, 1987 Annual AIChE Meeting, NY, NY, 11/15—20/87
13. Shaqfeh, E.S.G., “*A Non-Local Theory of Heat Conduction in Dilute and Semi-Dilute Composites of Highly Conducting Fibrous Inclusions*”, 1987 Annual AIChE Meeting, NY, NY, 11/15—20/87
14. Koch, Donald L. (speaker) and E.S.G. Shaqfeh, “*Structure and Its Effects on the Transport Properties of Sedimenting Suspensions*”, 1987 Annual AIChE Meeting, NY, NY, 11/15—20/87
15. Koch, Donald L. (speaker) and E.S.G. Shaqfeh, “*Structure and Its Effects on the Transport Properties of Sedimenting Suspensions*”, 40th Anniversary Meeting of the Division of Fluid Dynamics, American Physical Society, Eugene, Ore., 11/22—24/87
16. Shaqfeh, E.S.G. (speaker), R.G. Larson and G.H. Fredrickson, “*The Stability of a Falling Viscoelastic Film at Low to Moderate Reynolds Numbers*”, 40th Anniversary Meeting of the Division of Fluid Dynamics, American Physical Society, Eugene, Ore., 11/22—24/87
17. Frattini, P.L. (speaker), S.R. Galante, C.A. Sharpe, E.S.G. Shaqfeh, and D.L. Koch, “*On the Orientation of Axisymmetric Particles Flowing Through a Bed of Fixed Fibers*” 40th Anniversary Meeting of the Division of Fluid Dynamics, American Physical Society, Eugene, Ore., 11/22—24/87
18. Shaqfeh, E.S.G., “*A Non-Local Theory of Heat Conduction in Dilute and Semi-Dilute Fibrous Composites*”, Department of Chemical Engineering, Carnegie Mellon University, Pittsburgh, PA, Department Seminar, 4/19/88
19. Shaqfeh, E.S.G., “*Fundamental Problems Related to Determining the Properties of Fibrous Composites*”, Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, Minn., Department Seminar, 4/26/88
20. Shaqfeh, E.S.G., “*Fundamental Problems Related to Determining the Properties of Fibrous Composites*”, Department of Chemical Engineering, University of Wisconsin, Madison, Wisconsin, Department Seminar 4/20/88
21. C.W. Jurgensen(speaker) and E.S.G. Shaqfeh, “*Factors Controlling the Etching Rate and Process Latitude of the O₂ Reactive Ion Etching Pattern Transfer Step in Multilevel Lithography*”, Eighth International Conference on Photopolymers, The Society of Plastics Engineers, Nevele Country Club, Ellenville, NY 10/30-11/2/88
22. Shaqfeh, E.S.G., “*Nonlocal Effective Medium Theory in the Description of Fibrous Composites*”, Acrivos 60th Birthday Symposium, Pajaro Dunes, CA. 6/13/88
23. Shaqfeh, E.S.G., “*Interactions in Fibrous Dispersions*”, Fluid Mechanics Group, Department of Chemical Engineering, Princeton University, Princeton, NJ, 7/29/88
24. Shaqfeh, E.S.G.(speaker) and G.H. Fredrickson, “*A Nonlocal Theory of Transport in Fibrous Dispersions*”, Paper No. 152g, 1988 Annual AIChE Meeting, Washington, D.C., 12/1/88

25. Shaqfeh, E.S.G.(speaker) and G.H. Fredrickson, “*Heat and Mass Transport in Dispersions of Aligned Slender Fibers*”, 41st Annual Meeting of the Fluid Dynamics Division of the American Physical Society, SUNY, Buffalo, NY., 11/20—22/88
26. Shaqfeh, E.S.G.(speaker) and G.H. Fredrickson, “*Diagrammatic Methods in Transport in Fibrous Dispersions*”, Fluid Mechanics and Suspensions Seminars, Dept. of Chemical Engineering, Cornell University, Ithaca, NY 9/7/88
27. Shaqfeh, E.S.G. (speaker) and G.H. Fredrickson, “*Nonlocal Heat and Momentum Transfer in Fibrous Dispersions*”, Fluid Mechanics and Suspensions Seminars, Dept. of Chemical Engineering, Cornell University, Ithaca, NY 9/8/88
28. Jurgensen, C.W.(speaker) and E.S.G. Shaqfeh, “*Simulation of Etching Profiles and Process Latitudes for the O₂ Reactive Ion Etching Pattern Transfer Step in Multilevel Lithography*”, SPIE’s 1989 Symposium on Microlithography, San Jose, CA 2/27/89—3/3/89
29. Jurgensen, C.W.(speaker) and E.S.G. Shaqfeh, “*Simulation of Etching Profiles and Process Latitudes for the O₂ Reactive Ion Etching Pattern Transfer Step in Multilevel Lithography*”, American Chemical Society Polymers in Microlithography Symposium, Dallas, TX 4/9—14/89
30. Shaqfeh, E.S.G., “*Fundamental Problems in Predicting the Properties of Short Fiber Composites*”, Department of Chem. Eng., Northwestern Univ., Evanston, Ill. 2/23/89
31. Shaqfeh, E.S.G., “*Fundamental Problems in Predicting the Properties of Short Fiber Composites*”, Department of Chem. Eng., Princeton University, Princeton, NJ 3/31/89
32. Shaqfeh, E.S.G., “*Fundamental Problems in Predicting the Properties of Short Fiber Composites*”, Department of Mech. Eng., Cornell University, Ithaca, NY 4/4/89
33. Shaqfeh, E.S.G., “*Fundamental Problems in Predicting the Properties of Short Fiber Composites*”, Department of Chem. Eng., Syracuse University, Syracuse, NY 4/11/89
34. Shaqfeh, E.S.G., “*Two Purely Elastic Instabilities*”, Department of Chem. Eng., Notre Dame, Notre Dame, Ind. 5/2/89
35. Jurgensen, C.W. (speaker) and E.S.G. Shaqfeh, “*A Kinetic Theory of Bombardment Induced Interface Evolution*”, 33rd International Symposium on Electron, Ion, and Photon Beams, Monterey, CA 5/30/89
36. Koch, D.L.(speaker) and E.S.G. Shaqfeh, “*Orientation in Dilute and Semi-dilute Suspensions of Non-Brownian Fibers Subject to Uniaxial Extensional Flows*”, 61st Annual Meeting of the Society of Rheology, Montreal, Canada 10/24/89
37. Shaqfeh, E.S.G. and D.L. Koch, “*Hydrodynamic Orientation Dispersion in Extensional Flows of Slender Fibers*”, 1989 Annual AIChE Meeting, Paper 12d, San Francisco, CA.
38. Muller, S.J. (speaker), R. G. Larson and E.S.G. Shaqfeh, “*A Purely Elastic Instability in Taylor-Couette Flow*”, 61st Annual Meeting of the Society of Rheology, Montreal, Canada, 10/24/89
39. Larson, R.G.(speaker), E.S.G. Shaqfeh, and S.J. Muller, “*A Purely Elastic Instability in Taylor-Couette Flow*”, 1989 Annual AIChE Meeting, San Francisco, CA, 11/5/89
40. Shaqfeh, E.S.G.(speaker), S.J. Muller, and R.G. Larson, “*A Purely Elastic Instability in Taylor-Couette Flow*”, 42nd Annual Meeting of the Division of Fluid Dynamics of the American Physical Society, Palo Alto, CA 11/19/89
41. Shaqfeh, E.S.G., “*Problems in the Kinetic Theory of Viscous Suspensions*”, The Levich Institute, City College of New York, NY, NY, Department Colloquium 1/30/90
42. Shaqfeh, E.S.G., “*A Purely Elastic Instability in Taylor-Couette Flow*”, Fluid Mechanics Group, California Institute of Technology, Pasadena, CA. 4/18/90
43. Shaqfeh, E.S.G.(speaker) and A. Sangani, “*Simulation and Theory in the Study of Fiber Dispersions*” Annual Fine Particle Society Meeting, San Diego, CA. 8/21—25/90
44. Shaqfeh, E.S.G., “*The Configuration of Particles and Polymers in Flow Through Fixed Beds*”, Department Colloquium, Univ. of CA at Santa Barbara, CA. 11/8/90
45. Shaqfeh, E.S.G. (speaker), S.J. Muller and R.G. Larson, “*The Effect of Finite Gap, Inertia and Dilute Solution Properties on the Viscoelastic Taylor-Couette Instability*”, Annual AIChE Meeting, Chicago, IL. 11/14/90
46. Shaqfeh, E.S.G. and D.L. Koch (speaker), “*Polymer Stretch in Fixed Beds*”, Annual AIChE Meeting, Chicago, IL. 11/14/90

47. Shaqfeh, E.S.G.(speaker) and D.L. Koch, “*The Configuration of Particles and Polymers in Flow Through Fixed Beds*”, APS Division of Fluid Dynamics Annual Meeting, Cornell University, Ithaca, NY 11/21/90
48. Shaqfeh, E.S.G., “*A Purely Viscoelastic Instability in Taylor-Couette Flow*”, Fluid Mechanics Seminar, Department of Mechanical Engineering, Stanford University, 12/90
49. Shaqfeh, E.S.G., “*Purely Elastic Instabilities in Simple Viscometric Flows*”, Department Colloquium, Chemical Engineering Department, Univ. of California at Davis, 4/8/91
50. Shaqfeh, E.S.G., “*Purely Elastic Instabilities in Simple Viscometric Flows*”, Fluid Mechanics Colloquium, E.S.P.C.I., Paris, France 6/17/91
51. Shaqfeh, E.S.G., “*Purely Elastic Instabilities in Simple Viscometric Flows*”, Department Colloquium, Chemical Engineering Department, University of Colorado, Boulder, Co. 10/24/91
52. Shaqfeh, E.S.G.(speaker), V.K. Singh, and J.P. McVittie, “*Simulation and Experiment in Plasma RIE with Surface Reemission*”, SEMATECH Expert Panel on Plasma Enhanced Processing, Dallas, Texas 9/16/91
53. V.K. Singh (speaker), E.S.G. Shaqfeh, and J.P. McVittie, “*Simulation of Reactive Ion Etching with Surface Re-emission*”, Annual Meeting of the Electrochemical Society, Phoenix, AZ. October, 1991
54. V.K. Singh (speaker), E.S.G. Shaqfeh and J.P. McVittie, “*Simulation of Profile Evolution in Plasma Etching Using a Surface Re-emission Model*”, American Institute of Chemical Engineers 1991 Annual Meeting, Los Angeles, CA. November, 1991. Paper No. 28b
55. Joo, Y.L. (speaker), and E.S.G. Shaqfeh, “*Purely Elastic Instabilities in Dean and Taylor Dean Flows*”, American Institute of Chemical Engineers 1991 Annual Meeting, Los Angeles, CA November, 1991 Paper No. 112f
56. Larson, R.G. (speaker), S.J. Muller, and E.S.G. Shaqfeh, “*The Elastic Taylor-Couette Instability for Rheologically Complex Fluids*”, American Institute of Chemical Engineers 1991 Annual Meeting, Los Angeles, CA. November, 1991 Paper No. 24b
57. Shaqfeh, E.S.G., “*Microstructural Configuration in Flow Through Fixed Beds*”, 3M Research Center, Minneapolis, Minn. 3/18/92
58. Shaqfeh, E.S.G. (speaker) and Anthony R. Evans, “*Microstructural Configuration in Flow Through Fixed Beds*”, 23rd Annual Meeting of the Fine Particle Society, Symposium on Multiphase Flow, Riviera Hotel, Las Vegas, 7/14/92
59. Shaqfeh, E.S.G.(speaker), A.R. Evans, and P.L. Frattini, “*Polymer Configuration During Flow Through a Fixed Bed of Fibers*”, XIth International Congress on Rheology, Brussels Convention Hall, Brussels, Belgium (Session on Composite Materials) 8/17—21/92
60. Shaqfeh, E.S.G. “*Purely Elastic Instabilities in Viscometric and Nearly Viscometric Flows*”, 1992 Packard Fellowship Meeting, Monterey Bay Aquarium, Monterey, CA 9/10/92
61. Shaqfeh, E.S.G. “*Purely Elastic Instabilities in Viscometric and Nearly Viscometric Flows*”, Department of Chem. Eng., Univ. of Minnesota, Department Colloquium, 9/29/92
62. Shaqfeh, E.S.G. “*Purely Elastic Instabilities in Viscometric and Nearly Viscometric Flows*”, Department of Chem. Eng., Northwestern University, Department Colloquium, 10/1/92
63. Shaqfeh, E.S.G. “*Simulation of Profile Evolution in Plasma RIE with Surface Transport*”, Engineering Research Center for Plasma-Aided Manufacturing, University of Wisconsin, Fall Colloquium Series, 10/2/92
64. Mackaplow, M. (speaker) and E.S.G. Shaqfeh, “*Numerical Simulation of Transport Properties in Fiber Dispersions*”, 1992 Annual AIChE Meeting, Miami Beach, Fla. Fundamental Research in Fluid Mechanics: Particulate and Multiphase Flows I Session, Paper 78c, 11/2/92
65. Evans, A.R. (speaker), E.S.G. Shaqfeh, and P.L. Frattini, “*Polymer Stretch in Fixed Fiber Beds as a Stochastic Strong Flow*”, 1992 Annual AIChE Meeting, Miami Beach, Fla., Fundamental Research in Fluid Mechanics: Non-Newtonian Flows Session, 11/3/92
66. Joo, Y.L (speaker) and E.S.G. Shaqfeh, “*Observations of Purely Elastic Instability in the Taylor-Dean Flows of a Polyisobutylene Boger Fluid*”, 1992 Annual AIChE Meeting, Miami Beach, Fla., Fundamental Research in Fluid Mechanics: Stability and Non-Linear Hydrodynamics Session, 11/4/92
67. Singh, V.K. (speaker) and E.S.G. Shaqfeh, “*Time Evolution of Surface Roughness in LPCVD*” Paper 202c, 1992 Annual AIChE Meeting, Miami Beach, Fla., 11/4/92
68. Shaqfeh, E.S.G. “*Purely Elastic Instabilities in Viscometric and Nearly Viscometric Flows*”, Department of Chem. Eng., California Institute of Technology, Department Colloquium, 1/12/93

69. Shaqfeh, E.S.G. “*Simulation and Experiment in Silicon RIE Profile Evolution*”, Lawrence Livermore Laboratories, 1/29/93
70. Joo, Y.L., I.Dris, and E.S.G. Shaqfeh (speaker), “*A Theoretical and Experimental Study of Viscoelastic Instabilities in Taylor-Dean Flows and Eccentric Cylinder Flows*”, 65th Annual Society of Rheology Meeting, Non-Newtonian Fluid Mechanics, Paper C, Santa Barbara, 2/8/93
71. Koch, D.L. (speaker), R.R. Sundararajkumar, and E.S.G. Shaqfeh, “*Effective Thermal Conductivity and Extensional Viscosity of Semi-Dilute Dispersions of Disks*”, 65th Annual Society of Rheology Meeting, Complex Fluids: Non-Brownian Systems, Paper D30, Santa Barbara, 2/10/93
72. Shaqfeh, E.S.G., “*The Transport Properties of Short Fiber Dispersions: Simulation and Theory*”, Applied Mathematics Seminar, Stanford University, Stanford, CA, 5/13/93
73. Shaqfeh, E.S.G., “*Purely Elastic Instabilities in Viscometric and Nearly Viscometric Flows*”, Department of Chemical and Nuclear Engineering, Univ. of Calif. at Santa Barbara, Santa Barbara, CA, Department Colloquium, 5/25/93
74. Shaqfeh, E.S.G., “*Particle Configuration and Polymer Stretch in Flow Through Fixed Beds*”, Department of Chemical Engineering, Univ. of Calif. at Berkeley, Berkeley, CA, Department Colloquium, 10/11/93
75. Schiek, R. and E.S.G. Shaqfeh, “*The Nonlocal Stress of a Bound, Brownian Suspension of Slender Fibers*”, Suspensions Symposium, Society of Rheology Meeting, Boston, MA 11/17-21/93
76. Mackaplow, M. (speaker) and E.S.G. Shaqfeh, “*Simulations of the Sedimentation of a Fiber Suspension*”, Particulate and Multiphase Flow Session, Fluid Mechanics Section, AIChE National Meeting, St. Louis, MO 11/16-19/93
77. Joo, Y.L. (speaker) and E.S.G. Shaqfeh, “*An Elastic Instability in the Flow Near a Meridional Block in a Taylor-Couette Cell*”, Pattern Formation and Non-linear Stability Session, AIChE National Meeting, St. Louis MO 11/16-19/93
78. Schiek, R. L. (speaker) and E.S.G. Shaqfeh, “*The Non-Local Stress of a Bound, Brownian Suspension of Slender Fibers*”, Suspensions Section, APS-DFD Meeting, Albuquerque, NM 11/21-23/93
79. Dris, I.R. (speaker), Y.L. Joo, and E.S.G. Shaqfeh, “*On Purely Elastic Cylinders in Eccentric Cylinder Flows*”, Non-Newtonian Flows Section, APS-DFD Meeting, Albuquerque, NM 11/21-23/93
80. Doyle, P., E.S.G. Shaqfeh, and A.P. Gast, (poster) “*Brownian Dynamics Simulations of Flexible Fibers in Shear Flow*”, Gordon Conference on Macromolecular Polyelectrolyte Solutions, Chair : Robert Pecora, Oxnard, CA, 2/11/94
81. Shaqfeh, E.S.G. “*Transport in Fiber Suspensions – the Local and NonLocal Problem*”, Washington University at St. Louis, Department Colloquium, St. Louis, MO 3/21/94
82. Schiek, R. and E.S.G. Shaqfeh “*The Non-Local Stress of a Bound, Brownian Suspension of Slender Fibers*”, 68th ACS Colloids and Surface Science Symposium, Rheology Symposium, June 22, 1994
83. Doyle, P., E.S.G. Shaqfeh, and A.P. Gast “*Dynamic Simulation of Polymer Chains Near and Tethered to Impermeable Interfaces*”, 68th ACS Colloids and Surface Science Symposium, Rheology Symposium, June 22, 1994
84. Frattini, P. (speaker), A.R. Evans and E.S.G. Shaqfeh, “*Polymer Stretch During Flow Through a Random Fibrous Media*”, Golden Gate Polymer Forum, Dinner Meeting, July 21, 1994
85. Doyle, P., E.S.G. Shaqfeh, and A.P. Gast “*Brownian Dynamics of Flexible Polymers Near Interfaces*” Fundamental Research in Fluid Mechanics: Interfacial Flows, Annual AIChE Meeting, Nov. 13-18, 1994, San Francisco.
86. Shaqfeh, E.S.G., A.R. Evans and A.B. Mosler, “*The Flow of Semi-Rigid Polymers through a Dilute Porous Bed*” Fundamental Research in Fluid Mechanics: Multiphase and Particulate Flows, Annual AIChE Meeting, Nov. 13-18, 1994, San Francisco.
87. Dris, I and E.S.G. Shaqfeh, “*Purely Elastic Instabilities in Eccentric Cylinder Flows: Global versus Local Stability*, 66th Annual Meeting of the Society of Rheology, Non-Newtonian Flows Session: Viscoelastic Instabilities, October 2-6, 1994
88. Mackaplow, M. and E.S.G. Shaqfeh, “*A Numerical Study of the Rheological Properties of Suspensions of Rigid, Non-Brownian Fibers*, 66th Annual Meeting of the Society of Rheology, Microscopic Analysis of Rheological Behavior Session, Session M, Paper M4, October 2-6, 1994
89. Shaqfeh, E.S.G. *Polymer Stretch in Disordered Fixed Beds: Stochastic Strong Flows ?* Chemical Engineering Department Colloquium, Massachusetts Institute of Technology, Cambridge, MA, Sept. 9, 1994

90. Shaqfeh, E.S.G. *Purely Elastic Instabilities in Viscometric and Nearly Viscometric Flows* Chemical Engineering Department Colloquium, City College of New York, NY, NY, Sept. 12, 1994
91. Shaqfeh, E.S.G. *Dynamic Simulations of the Sedimentation of Fiber Suspensions*, 26th Annual Meeting of the Fine Particle Society, Symposium on Multiphase Flow, Hyatt Regency, Chicago, 8/22-25/95 (Invited Lecture)
92. Shaqfeh, E.S.G. *Numerical Simulations of the Rheology and Sedimentation of Fiber Suspensions*, Ecole Superieure De Physique et de Chimie Industrielle, Physique et Mecanique des Milieux Heterogenes, Paris, France 3/8/95
93. Shaqfeh, E.S.G. *Polymer Stretch in Disordered Fixed Beds: Stochastic Strong Flows*, Ecole Superieure De Physique et de Chimie Industrielle, Physique et Mecanique des Milieux Heterogenes, Paris, France 3/16/95
94. Shaqfeh, E.S.G. *Purely Elastic Instabilities in Taylor-Dean and Eccentric Cylinder Flow*, Ecole Superieure De Physique et de Chimie Industrielle, Physique et Mecanique des Milieux Heterogenes, Paris, France 3/22/95
95. Shaqfeh, E.S.G. *The elastic stability of journal bearing flows and related recirculated flows*, Ninth International Workshop on Numerical Methods in Non-Newtonian Flows, Llyndir Hall, Rossett, Wales, 19-22 April, 1995
96. Schiek, R.L. and E.S.G. Shaqfeh (speaker) *Non-local stress of a bound, Brownian suspension of slender, rigid fibers*, Applied Mathematics Seminar, Stanford University, 27, April, 1995.
97. Shaqfeh, E.S.G. (speaker), M. Mackaplow, B. Herzhaft, E. Guazzelli, and D. L. Koch "The Sedimentation of Fiber Suspensions", Annual AIChE meeting, Miami Beach, Fla., Fundamental Research in Fluid Mechanics: Multiphase and Particulate Flow I, 12-19 November 1995
98. Doyle, P. (speaker), E.S.G. Shaqfeh, and A.P. Gast, "Dynamic simulation and the rheology of semi-flexible polymers in linear flows", Annual AIChE meeting, Miami Beach, Fla., Fundamental Research in Fluid Mechanics: Non-Newtonian Flow, 12-19 November 1995
99. E.S.G. Shaqfeh (speaker), P. Doyle, and A.P. Gast "Dynamic simulation and the rheology of semi-flexible polymers in linear flows", 67th Society of Rheology Meeting, Sacramento, Oct. 8-12, 1995 Numerical simulations and Methods session.
100. A. Grillet and E.S.G. Shaqfeh "Viscoelastic instabilities of recirculation flows", 67th Society of Rheology Meeting, Sacramento, Oct. 8-12, 1995 Numerical simulations and Methods session.
101. A. Mosler and E.S.G. Shaqfeh "The conformation change of model polymers in stochastic flow fields" 67th Society of Rheology Meeting, Sacramento, Oct. 8-12, 1995 Polymer processing, Mixing and Dispersions session.
102. R.L. Schiek and E.S.G. Shaqfeh "Cross streamline migration of rigid, Brownian fibers experiencing plane Poiseuille flow in a narrow gap" 67th Society of Rheology Meeting, Sacramento, Oct. 8-12, 1995 Suspensions, Colloids and Granular Materials.
103. M.B. Mackaplow (speaker) and E.S.G. Shaqfeh, "Numerical Simulation of the rheology and sedimentation of fiber suspensions", University of Manchester Institute of Science and Technology - Department of Chemical Engineering, Manchester, 4/95
104. M.B. Mackaplow (speaker) and E.S.G. Shaqfeh, "Numerical Simulation of the rheology and sedimentation of fiber suspensions", GDR Physique des Milieux Heterogenes Complexes - Reunion Suspenions, FAST (Orsay, France), 3/23/95
105. P. Doyle (speaker), E.S.G. Shaqfeh, A.P. Gast – Invited Lecture – "Stochastic Simulation of Polymers" – Poster – "Dynamic Simulation of Tethered Polymers in Shear Flow" NATO ASI 940496 (Solvents and Self-Organization in Polymers) 8/1-8/11/95 Antalya, Turkey
106. M. Balooch (speaker), M. Moalem, W.E. Wang, A.V. Hamza, J. Levinson, and E.S.G. Shaqfeh, "Low-Energy Ar⁺ and Chlorine Ion Etching of Silicon", 48th Gaseous Electronics Conference, Berkeley, CA. October 9-13, 1995.
107. "Low energy Ar ion-induced and chlorine ion etching of silicon," M. Balooch, M. Moalem, Wei-E. Wang, A. V. Hamza, J. Levinson, and E. S. G. Shaqfeh, 42nd National Symposium of the American Vacuum Society, October 16-20, 1995, Minneapolis, MN.
108. P.S. Doyle, E.S.G. Shaqfeh (speaker), B. Yang, and B. Khomami, "The nonlocal rheology of polymer layers via a combined Brownian dynamics/finite elements approach", XIXth International Congress of Theoretical and Applied Mechanics, Kyoto, Japan, August 25-31, 1996 (Mini-symposium MF2 on nonNewtonian Fluid Flow)

109. P.S. Doyle (speaker), E.S.G. Shaqfeh and A. P. Gast, "The rheology of nondilute films of flexible, tethered chains by direct simulation," XIIth International Congress on Rheology, Quebec City, Quebec, Canada, Aug. 18-23, 1996
110. I. M. Dris (speaker) and E.S.G. Shaqfeh, "A theoretical and experimental study of purely elastic instabilities in eccentric cylinder flows " XIIth International Congress on Rheology, Quebec City, Quebec, Canada, Aug. 18-23, 1996
111. E.S.G. Shaqfeh (speaker), I. Dris, A. Grillet, "Purely elastic instabilities in viscometric and nonviscometric flows", 3M Research Center, Minneapolis, Minnesota, Feb. 21-22, 1996
112. E.S.G. Shaqfeh(speaker), P. Doyle, A.P. Gast, "Brownian dynamics simulations of polymer rheology: local and nonlocal problems" School of Chemical Engineering, Cornell University, Ithaca, NY, Feb. 27 1996
113. E.S.G. Shaqfeh(speaker), P. Doyle, A.P. Gast, "Brownian dynamics simulations of polymer rheology: local and nonlocal problems" Special Seminar, Rheology Group, Mass. Inst. of Tech., Cambridge, Mass. Feb. 26 1996
114. E.S.G. Shaqfeh(speaker), P. Doyle, A.P. Gast, "Brownian dynamics simulations of tethered polymer layers", Center for Polymer Interfaces and Molecular Assemblages, Monthly Meeting, Stanford University, Feb. 29, 1996.
115. E.S.G. Shaqfeh(speaker), V. Singh, J. Levinson, "Profile simulation as a tool to understand plasma etching processes," Department of Mechanical Engineering, The University of Vermont, Feb. 23, 1996
116. E.S.G. Shaqfeh(speaker), V. Singh, J. Levinson, "Profile simulation as a tool to understand plasma etching processes," Intel Co., Bowers Ave., Santa Clara, CA 3/26/96 (Seminar to plasma etching and topography group)
117. E.S.G. Shaqfeh(speaker), P. Doyle, A.P. Gast, "Brownian dynamics simulations of tethered polymer layers", Sunrise club, Chemical Engineering Gazebo, Stanford University, 4/4/96 (Part of presentation for the Center for Polymers at Interfaces and Molecular Assemblages)
118. P.S. Doyle, E.S.G. Shaqfeh, and A.P.Gast, Poster Presented - "Stochastic Simulations of Polymers in Unbound Flows and Tethered to Interfaces," Gordon Research Conference Colloidal, Macromolecular and Polyelectrolyte Solutions Ventura, CA 2-11-96 to 2-16-96
119. J.A. Levinson, E.S.G. Shaqfeh, A. Hamza and M. Balooch, "The Ion-Assisted Etching and Profile Development of Silicon in Chlorine Plasmas", Poster presented at the annual SRC project review (topography session), Albuquerque, NM, April 1, 1996
120. J.A. Levinson, E.S.G. Shaqfeh, A.Hamza and M. Balooch, "Ion-assisted etching and profile development of Si in Cl₂" Plasma Etch Users Group, Monthly Meeting, Northern California Chapter, American Vacuum Society Topic: Applications of Plasma Models to IC Processing Thursday, June 13, 1996 National Semiconductor Corporation, 955 Kifer Rd, Santa Clara, CA 95051
121. J.A. Levinson(speaker), E.S.G. Shaqfeh, A.Hamza and M. Balooch, "The Ion-assisted Etching and Profile Development of Silicon in Chlorine" Abstract Number: 602 Program Number: PS1-TuM8 Session Title: Etch I AVS 43rd National Symposium, October 14-18, 1996, Philadelphia, PA
122. E.S.G. Shaqfeh, "The Dynamic Simulations of Ultrathin Polymer Brushes", Packard Fellows Annual Meeting, Sept. 4-7, 1996, Monterey Bay Aquarium, Monterey, CA
123. A.B. Mosler (speaker) and E.S.G. Shaqfeh, "Drop Break-Up in the Flow Through Fixed Beds", Particulate and Multiphase Flows Session, Annual Meeting of the American Institute of Chemical Engineers, Nov. 10-15, 1996, Chicago.
124. P.S.Doyle (speaker), E.S.G. Shaqfeh, and A.P. Gast, "Stochastic Simulation Of The Rheology Of Flexible, Tethered Chains" Interfacial Flows Session, Annual Meeting of the American Institute of Chemical Engineers, Nov. 10-15, 1996, Chicago.
125. A.B. Mosler (speaker) and E.S.G. Shaqfeh, "Drop Breakup in the Flow through Fixed Beds", The American Physical Society Division of Fluids Dynamics Annual Meeting, Syracuse, NY November 24, 1996, Suspensions Session.
126. E.S.G. Shaqfeh, "Kinetic Studies in Plasma Etching Simulations: Si Etching with Cl₂" The Northern California Chapter of the American Vacuum Society, PLASMA ETCH '96 SYMPOSIUM, Le Baron Hotel, San Jose, California
127. J. A. Levinson (speaker), E.S.G. Shaqfeh, M. Balooch and A.V. Hamza, "The ion-assisted etching and profile development of silicon in chlorine", 19th Surface/Interface Research Meeting of the NCCAVS, SLAC, Sept. 17, 1996.
128. E.S.G. Shaqfeh (speaker), G.M .Homsy, and C.R. Robertson, "Novel Computer Based Demonstrations in Teaching Applied Mathematics and Transport Phenomena", Computers in the Curriculum Session, Annual Meeting of the American Institute of Chemical Engineers, Nov. 10-15, 1996, Chicago.

129. E.S.G. Shaqfeh, G.M. Homsy (speaker), and C.R. Robertson, "Novel Computer Based Demonstrations in Teaching Applied Mathematics and Transport Phenomena", 1997 ASEE/PSW Conference, *Emerging Classroom Technologies in Engineering Education*, Mar. 14-15, 1997, San Luis Obispo.
130. E.S.G. Shaqfeh, "Purely elastic instabilities in viscometric and related non-viscometric flows", Fluid mechanics seminar, Skilling Auditorium, Stanford University, Dec. 3, 1996
131. P.S. Doyle (speaker), T. Kwan, E.S.G. Shaqfeh, G. McKinley, and S. Spiegelberg, "Brownian dynamics simulations of polymers in transient extensional flows: Extensional relaxation and solvent quality", 68th Annual Meeting of the Soc. of Rheol., Galveston, Texas, Paper NS11, Numerical Simulations session. Feb 19, 1997.
132. P.S. Doyle, E.S.G. Shaqfeh, H.K. Ganpule and B. Khomami, "The rheology of confined polymer solutions in pressure driven flow: a numerical study", 68th Annual Meeting of the Soc. of Rheol., Galveston, Texas, Paper NS14, Numerical Simulations session. Feb 20, 1997.
133. E.S.G. Shaqfeh, "Brownian Dynamics Simulations of Confined Polymer Layers", Stat. Mech Seminar, Department of Chemistry, Berkeley, CA, 3/7/97
134. E.S.G. Shaqfeh, "Elastic Instabilities in Free Surface Displacement Flows" Polymer seminar, Department of Chemical Engineering, Univ. Cal at Berkeley, 4/2/97
135. E.S.G. Shaqfeh, "The Role of Brownian Dynamics Simulations in the Study of Polymer Rheology", Department Colloquium, Department of Chemical Engineering, Univ. Cal at Berkeley, 4/14/97
136. E.S.G. Shaqfeh, "The role of Brownian dynamics simulations in the study of polymer rheology", Department Colloquium, Department of Chemical Engineering, Stanford University, Stanford CA., 4/9/97
137. E.S.G. Shaqfeh, "The role of Brownian dynamics simulations in the study of polymer rheology", Department Colloquium, Department of Chemical Engineering, University of Illinois, Urbana, Ill., 4/22/97
138. P.S. Doyle, T. Kwan, E.S.G. Shaqfeh and A. P. Gast, "Brownian Dynamics simulations of sheared "wet" polymer brushes", Annual ACS meeting, Paper # 480 Session: Organic Thin Films: Grafting and Surface Segregation. 4/16/97
139. A.B. Mosler and E.S.G. Shaqfeh (speaker), "Drop Breakup in the Flow through Fixed Beds", NASA Lewis Air Force Base, NASA Microgravity Program, Department and Area Seminar, Cleveland, OH, 4/25/97 November 24, 1996, Suspensions Session.
140. J. A. Levinson (speaker), A.V. Hamza, E.S.G. Shaqfeh, and M. Balooch "The Selective Growth of SiC Films Via C60 Precursors and the Profile Development of the Silicon Underlayer" Session 08e07, paper 2478, Etching and Deposition in Electronic Materials Processing, Nov. 1997, Annual AIChE Meeting, Los Angeles, CA.
141. Joshua A. Levinson, Alex V. Hamza, Eric S.G. Shaqfeh, and Mehdi Balooch "Selective Growth of SiC Films Via C60 Precursors and the Profile Development of the Silicon Underlayer", 20th Surface/Interface Research Meeting, Northern California Chapter of the American Vacuum Society, Thursday, June 19, 1997, Lawrence Livermore National Laboratory, Livermore, CA.
142. Anne Grillet, Alex Lee, and Eric S.G. Shaqfeh (speaker), "Viscoelastic instabilities in coating and injection flows", IUTAM symposium on Rheology and Complex Fluids, Sydney, Australia 7/20-25/97
143. A.B. Mosler (speaker) and E.S.G. Shaqfeh, "An Experimental Investigation of Drop Break-Up in the Flow Through Fixed Beds", Fundamental Research in Fluid Mechanics: Particulate and Multiphase Flows Session, Annual Meeting of the American Institute of Chemical Engineers, Nov. 16-21, 1997, Los Angeles.
144. A. Grillet (speaker) and E.S.G. Shaqfeh "Investigation of the Stability of Elastic Fluid Interfaces in Fluid-Fluid Displacement", Annual Meeting of the American Institute of Chemical Engineers, Nov. 16-21, 1997, Los Angeles, Fundamental Research in Fluid Mechanics: Stability Session Thursday Nov 20, 3:50pm
145. E.S.G. Shaqfeh (speaker), Anne Grillet and Alex Lee, "Viscoelastic Instabilities of recirculation flows near solid surfaces and interfaces" Annual Society of Rheology Meeting, Oct 20-25, 1997, Columbus, OH. Non-Newtonian Fluid Mechanics session. Thursday Oct 23, 8:05am
146. Anne Grillet, Bin Yang, Bamin Khomami, and E.S.G. Shaqfeh, "A Numerical Study of Viscoelastic Flow in the Lid-Driven Cavity" Annual Society of Rheology Meeting, Oct 20-25, 1997, Columbus, OH.
147. Thomas Kwan (speaker) and E.S.G. Shaqfeh "A Brownian dynamics study on the effect of solvent quality on the rheology of polymer solutions" Annual Society of Rheology Meeting, Oct 20-25, 1997, Columbus, OH.

148. Joshua A. Levinson (speaker), Alex V. Hamza, Eric S.G. Shaqfeh, and Mehdi Balooch "The Selective Growth of SiC Films Via C60 Precursors and the Profile Development of the Silicon Underlayer" Annual Meeting of the American Institute of Chemical Engineers, Nov. 16-21, 1997, Los Angeles, Etching and Deposition in Electronic Materials Processing Session 08e07, Paper 2478
149. Elizabeth Kilkenny Wheeler(Speaker) Peter Fischer Gerald G. Fuller Eric S.G. Shaqfeh "Flow-Induced Structures and Instabilities in Viscoelastic Micellar Solutions", Annual Meeting of the American Institute of Chemical Engineers, Fundamental Research in Fluid Mechanics: Non-Newtonian Flows Nov. 16-21. 1997, Los Angeles
150. J. A. Levinson , E.S.G. Shaqfeh (speaker), M. Balooch and A.V. Hamza, "The ion-assisted etching and profile development of silicon in chlorine", CSMS TAB Meeting, University Affiliates Grant Review, Nov. 3, 1997, Ocracoke Room, Brighton Hall, Semiconductor Research Corporation.
151. E.S.G. Shaqfeh (speaker), A. Grillet, A. Lee, "Purely Elastic Instabilities in Bulk and Interfacial Flows", University of Wisconsin, Rheology Research Center, March 27, 1998.
152. E.S.G. Shaqfeh (speaker), A. Grillet, A. Lee, "Purely Elastic Instabilities in Bulk and Interfacial Flows", University of Delaware, Department of Chemical Engineering, April 17, 1998.
153. E.S.G. Shaqfeh (speaker), A. Grillet, A. Lee, "Purely Elastic Instabilities in Bulk and Interfacial Flows", Northwestern University, Department of Chemical Engineering, Feb. 27, 1998.
154. A. Grillet(speaker), B. Khomami, E.S.G. Shaqfeh, "Computational and Experimental Investigation of Lid Driven Cavity Flows", Annual AIChE National Meeting, NonNewtonian Flows Sessions, Miami Beach, Fla. Nov. 15-20, 1998
155. A. Grillet(speaker), E.S.G. Shaqfeh, B. Khomami, "Experimental Investigation of Lid Driven Cavity Flows", Annual Society of Rheology Meeting, Viscoelastic Processing Flows Session, Monterey, CA. Oct. 4-8, 1998
156. J. Levinson(speaker), E.S.G.Shaqfeh, M. Balooch, A. Hamza, "The Ion-assisted Etching and Profile Development of Silicon in Molecular and Atomic Chlorine: Experiment, Modelling, and Simulation" American Vacuum Society 45th International Symp, Plasma Surface Interactions Sessions, Baltimore, MD., Nov. 2-6, 1998
157. J. Levinson(speaker), E.S.G.Shaqfeh, M. Balooch, A. Hamza, "The Ion-assisted Etching and Profile Development of Silicon in Molecular and Atomic Chlorine: Experiment, Modelling, and Simulation" Annual AIChE National Meeting, Plasma Etching of Materials Sessions, Miami Beach, Fla. Nov. 15-20, 1998
158. A.G. Lee (speaker), E.S.G. Shaqfeh, "Elastic Instabilities in Free Surface Displacement Flows", Annual Society of Rheology Meeting, Solutions and Coating Rheology Session, Monterey, CA. Oct. 4-8, 1998
159. E.S.G. Shaqfeh and A.G. Lee, "Fingering in Fluid-Fluid Displacement of Highly Elastic Fluids", Annual AIChE National Meeting, Session Honoring the 70th Birthday of Andreas Acrivos, Miami Beach, Fla. Nov. 15-20, 1998
160. Thomas Kwan and E.S.G. Shaqfeh "A Brownian Dynamics Study of the Stress and Molecular Configuration of Single Polymer Chains in Exponential and Linearly-Ramped Shear Flow" Annual Society of Rheology Meeting, Extensional and Elongational Flows, Monterey, CA. Oct. 4-8, 1998 (poster)
161. Thomas Kwan and E.S.G. Shaqfeh "A Brownian Dynamics Study of the Solvent Quality Effects on Polymer Brushes" Annual Society of Rheology Meeting, Polymer Friction, Slippage, and Dynamics Near Interfaces Session, Paper FS8, Monterey, CA. Oct. 4-8, 1998
162. Thomas Kwan (speaker), E.S.G. Shaqfeh, P. Schorr, M. Tirrell, "A Brownian Dynamics Study of Solvent Quality Effects in Polymer Brush Lubrication and Dynamics" Annual AIChE National Meeting, Polymer Friction, Slippage and Dynamics Near Surfaces Session, Miami Beach, Fla. Nov. 15-20, 1998
163. E.S.G. Shaqfeh(speaker), A.B. Mosler, and P. Patel, "Drop Breakup in Fixed Bed Flows as Model Stochastic Flow Fields", 4th Microgravity Fluid Physics & Transport Phenomena Conference, Sponsored by NASA Microgravity, Aug. 12-14, 1998, Cleveland, Ohio
164. E.S.G. Shaqfeh(speaker), Joe S. Hur, T. Kwan, and A.P. Gast, "A Brownian Dynamics Study of Biaxial Extension and Exponential Shear Flow of Single Polymer Chains", IUTAM Symposium on Viscoelastic Fluid Mechanics: Effects of Molecular Modelling, Stanford, CA, June 21-25, 1998
165. E.S.G. Shaqfeh(speaker), A.G.Lee,Y. Kim and A.M. Grillet, "Elastic Instabilities in Coating Flows", I.U.S.T.I., Universitaire de Provence, Marseille, July 17, 1998.
166. E.S.G. Shaqfeh and A.G. Lee, "Fingering in the Fluid-Fluid Displacement and Coating of Highly Elastic Fluids", General Electric Corporation, Research Center, Schenectady, N.Y., 10/13-14/98

167. J.A. Levinson (speaker), E.S.G. Shaqfeh, M. Balooch, and A.V. Hamza, "Argon-ion induced etching and profile development of silicon in molecular and atomic chlorine", Oral and poster presentations at the 21st Surface/Interface Research Meeting, sponsored by the Surface/Interface Users Group of the Northern California Chapter of the American Vacuum Society, University of California at Davis, September 23, 1998.
168. E.S.G. Shaqfeh (speaker), P. Patel, A.B. Mosler, V. Cristini, J. Blawdziewicz, and M. Loewenberg, "Mechanisms of Drop Breakup in Flow Through Fixed Beds via Numerical Simulation", paper 123e, Fundamental Research in Fluid Mechanics: Interfacial Flows Session, AICHE Annual Meeting, Miami Beach, Fla. November 17, 1998
169. E.S.G. Shaqfeh (speaker), A.G. Lee, A. Grillet, and I. Dris, "Elastic ribbing instabilities in fluid-fluid displacement flows", Department of Chemical Engineering, University of California at Santa Barbara, March 4, 1999
170. E.S.G. Shaqfeh (speaker), A.G. Lee, A. Grillet, and I. Dris, "Elastic ribbing instabilities in fluid-fluid displacement flows", Department of Chemical Engineering, University of California at Los Angeles, March 5, 1999
171. E.S.G. Shaqfeh (speaker), A.G. Lee, A. Grillet, and I. Dris, "Elastic ribbing instabilities in fluid-fluid displacement flows", Department of Chemical Engineering, Iowa State University (of Science and Technology), March 11, 1999
172. E.S.G. Shaqfeh (speaker), A.G. Lee, A. Grillet, and I. Dris, "Purely elastic instabilities in bulk and interfacial flows: part 1", Department of Chemical Engineering, Virginia Polytechnic Institute, Blacksburg, VA. April 15, 1999
173. E.S.G. Shaqfeh (speaker), A.G. Lee, A. Grillet, and I. Dris, "Purely elastic instabilities in bulk and interfacial flows: part 2", Department of Mathematics, Virginia Polytechnic Institute, Blacksburg, VA. April 16, 1999
174. J. Hur, E.S.G. Shaqfeh (speaker), R.G. Larson, "Brownian dynamics simulations of single DNA chains in shear flow", 01j06 Fundamental Research in Fluid Mechanics: NonNewtonian Flows, Annual AICHE Meeting, Dallas, Texas, 11/3/99
175. T. Kwan and E.S.G. Shaqfeh (speaker), "Brownian dynamics simulations of single polymer chains in exponential and linearly-ramped shear flow", 01j10 Fundamental Research in Fluid Mechanics: General Papers, Annual AICHE Meeting, Dallas, Texas, 11/1/99
176. J. Hur (speaker), E.S.G. Shaqfeh, R.G. Larson, "Brownian dynamics simulations of single DNA chains in steady and transient shear flow", Rheology of polymer melts and solutions, 71st Society of Rheology Meeting, Madison, WI, 10/18/99
177. T. Kwan and E.S.G. Shaqfeh (speaker), "An experimental and simulation study of the behavior of single polymer chains in exponential and linearly-ramped shear flow", NonNewtonian fluid mechanics, 71st Society of Rheology Meeting, Madison, WI, 10/19/99
178. A.G. Lee and E.S.G. Shaqfeh (speaker), "Ribbing in the fluid-fluid displacement of highly elastic fluids", IUTAM Symposium on Nonlinear Wave Behavior in Multi-Phase Flow, Univ. of Notre Dame, Notre Dame, Indiana, Session IV: Advancing Fingers, Waves, Bubbles, 7/8/99
179. J.S. Hur, T. Kwan, E.S.G. Shaqfeh (speaker) and R.G. Larson, "Brownian dynamics simulations of single polymer chains in steady and time-varying shear flows", XIth International Workshop on Numerical Methods in Viscoelastic Flows, Vaals, The Netherlands, Aug. 25-28, 1999
180. J.S. Hur, T. Kwan, E.S.G. Shaqfeh (speaker) and R.G. Larson, "Brownian dynamics simulations of single polymer chains in steady and time-varying shear flows", Department Colloquium, Department of Chemical Engineering, Purdue University, Lafayette, Ind., Sept. 30, 1999
181. Patel, P., E.S.G. Shaqfeh, "Drop Dynamics in Flows through Fixed Fiber Beds", APS-DFD Annual Meeting, November 21, 1999 New Orleans, Session DK -Drops II.
182. E.S.G. Shaqfeh, "The Dynamics of DNA in Shear Flow", Fluid Mechanics Seminar, Stanford University, Stanford, January 24, 2000
183. E.S.G. Shaqfeh, "The Dynamics of DNA in Shear Flow", Department Colloquium, Washington University at St. Louis, St. Louis, MO, March 20, 2000
184. E.S.G. Shaqfeh, J.S. Hur, H.P. Babcock, D.E. Smith, and S. Chu, "The dynamics of dilute and semi-dilute dna solutions in shear flow", ICTAM 2000 Meeting, Chicago, Ill. Aug. 27-Sept. 2, 2000
185. J.S. Hur, E.S.G. Shaqfeh, H.P. Babcock, D.E. Smith, and S. Chu, "Brownian dynamics simulations of DNA chains with hydrodynamic interaction", XIIIth International Congress on Rheology, Cambridge, UK, Aug. 20-25, 2000

186. A. Lee, E.S.G. Shaqfeh, B. Khomami, "An experimental/theoretical study of elastic instabilities in free surface displacement flows", XIIIth International Congress on Rheology, Cambridge, UK, Aug. 20-25, 2000
187. N. Woo, E.S.G. Shaqfeh, "The rheology of polymer solutions in ultrathin films", ICTAM 2000 Meeting, Chicago, Ill. Aug. 27-Sept. 2, 2000
188. N. Woo and E.S.G. Shaqfeh, "Interfacial rheology of flexible polymers near and between impermeable boundaries", Fundamental Research in Fluid Mechanics: Non-Newtonian Flows, Annual AICHE Meeting, Los Angeles, Nov. 12-17, 2000
189. J. Butler and E.S.G. Shaqfeh, "Dynamic simulations of sedimenting, rigid fibers", Fundamental Research in Fluid Mechanics: Particulate and Multiphase Flows I, Annual AICHE Meeting, Los Angeles, Nov. 12-17, 2000
190. E.S.G. Shaqfeh, "An experimental and computational study of elastic fluid coating and coating instabilities", 3M Corporations, Minneapolis, Minnesota, June 29, 2000
191. A. Lee, E.S.G. Shaqfeh, and B. Khomami, "Viscoelastic free surface displacement flows: An experimental and computational study", 10th International Coating Process Science and Technology Symposium, Sept. 25-27, 2000, Scottsdale Radisson Resort Hotel in Scottsdale, AZ. Session TS7
192. E.S.G. Shaqfeh, "The dynamics of DNA in a shear flow", Special Seminar, Department of Chemical Engineering, Univ. of Calif. at Berkeley, Berkeley, CA. 8:00 am, 9/20/2000
193. E.S.G. Shaqfeh, "Computer Simulation of Stochastic Strong Flows", Invited Contribution, Annual AICHE Meeting, Los Angeles, CA, 11/13/2000, Paper 268i, Novel Numerical Methods in Fluid Mechanics Session
194. Nathan Woo and E.S.G. Shaqfeh, "Interfacial Rheology of Flexible Polymers Near and Between Impermeable Boundaries" Annual AICHE Meeting, Los Angeles, CA, 11/15/2000, Paper 135c, General Papers Session
195. Jason Butler and E.S.G. Shaqfeh, "Dynamic simulations of sedimenting Rigid Fibers", Annual AICHE Meeting, Los Angeles, CA, 11/14/2000, Paper 132j, Fundamental Research in Fluid Mechanics: Particulate and Multiphase Flows II
196. Charles M. Schroeder, Hazen Babcock, Joe S. Hur, Steve Chu, and Eric S. G. Shaqfeh, "Polymer dynamics in semi-dilute DNA solutions in a planar extensional flow" 72nd Annual Society of Rheology Meeting, Hilton Head, S. Carolina, Paper EF6, Monday, Feb. 12, 2001
197. Joe S. Hur and Eric S. G. Shaqfeh, "Brownian dynamics simulations of single DNA molecules in steady and transient mixed flow", 72nd Annual Society of Rheology Meeting, Hilton Head, S. Carolina, Paper MR4, Thursday, Feb. 15, 2001
198. Hazen Babcock, Rodrigo Teixeira, Eric S. G. Shaqfeh, and Steve Chu, "Single-polymer dynamics in steady mixed flows", 72nd Annual Society of Rheology Meeting, Hilton Head, S. Carolina, Paper MR5, Thursday, Feb. 15, 2001
199. David J. Olson, Prateek D. Patel, Eric S. G. Shaqfeh, Steven G. Boxer, and Gerald G. Fuller, "Fluorescence microscopy experiments and Brownian dynamics simulations of flow behavior of DNA molecules confined to two dimensions", 72nd Annual Society of Rheology Meeting, Hilton Head, S. Carolina, Paper MR6, Thursday, Feb. 15, 2001
200. Eric S.G. Shaqfeh, "The Dynamics Of DNA in Flow", Northwestern University, Applied Mathematics Seminar, Evanston, Ill., Jan. 29, 2001
201. Alex Lee, Eric S.G. Shaqfeh, Bamin Khomami, "The free surface displacement and coating of a polymeric solution- A combined finite element and experimental study", 3rd Pacific Rim Conference on Rheology, July 10, 2001, NonNewtonian Fluid Mechanics Session
202. Hazen Babcock, Rodrigo Teixeira, Eric S. G. Shaqfeh, and Steve Chu, "The dynamics of DNA in planar mixed flows", 3rd Pacific Rim Conference on Rheology, July 10, 2001, Extensional Rheology
203. Eric S.G. Shaqfeh, Nathan Woo, "The Rheology of Flexible Polymer Solutions in Thin Gap Flows via Brownian Dynamics", XIIth International Workshop on Numerical Methods in NonNewtonian Flows, Seascape Resort, Aptos, California, July 15-17, 2001
204. E. Shaqfeh, B. Khomami, Madan Somasi, Nathan Woo, Joe Hur, Jason Butler, "New Brownian Dynamics Algorithms for Bead-Rod and Bead-Spring Chains" XIIth International Workshop on Numerical Methods in NonNewtonian Flows, Seascape Resort, Aptos, California, July 15-17, 2001
205. Alex Lee, E. Shaqfeh, B. Khomami, "A Computational Study of Viscoelastic Fluid-Fluid Displacement and Related Coating Flows", XIIth International Workshop on Numerical Methods in NonNewtonian Flows, Seascape Resort, Aptos, California, July 15-17, 2001
206. E.S.G. Shaqfeh, Chemical Engineering Department Colloquium, "The Dynamics of DNA in Flow", Princeton University, October 17, 2001

207. E.S.G. Shaqfeh, School of Chemical Engineering, "The Dynamics of DNA in Flow", Cornell University, October 29, 2001
208. E.S.G. Shaqfeh, School of Engineering, "The Dynamics of DNA in Flow", Brown University, October 30, 2001
209. J. Butler and E.S.G. Shaqfeh, "Hydrodynamic Interactions in the Brownian Dynamics of a Polymer Chain", NonNewtonian Flows Session, Annual AIChE Meeting, Reno, Nevada, November 6, 2001
210. P. Patel and E.S.G. Shaqfeh, "A computational study of DNA chains in random arrays of obstacles", Dynamics of Complex and Biological Fluids, Annual AIChE Meeting, Reno, Nevada, November 4, 2001
211. E.S.G. Shaqfeh (speaker), P. Moin, S. Lele, "The molecular mechanism of turbulent drag reduction by polymer additives", DARPA Review Meeting, May 30-31, 2002 Westin Westminster, Westminster, Colorado
212. E.S.G. Shaqfeh (speaker), P. Moin, S. Lele, "The molecular mechanism of turbulent drag reduction by polymer additives", Department of Chemical Engineering, Monash University, Clayton, Victoria, Australia, June 20, 2002 (invited)
213. E.S.G. Shaqfeh, "The Dynamics of DNA in Shear and Mixed Flows with Application to Scission in Contraction Flow", Department of Chemical Engineering, Monash University, Clayton, Victoria, Australia, June 17, 2002 (invited)
214. E.S.G. Shaqfeh, "Do we really understand the coil-stretch transition and extensional stresses in polymer solutions?", Materials Institute, University of California at Santa Barbara, Oct. 9-11, 2002 (invited presentation)
215. Yves Dubief, Vince Terrapon, John Paschkewitz Eric S.G. Shaqfeh(speaker), Sanjiva Lele, "Turbulent drag reduction mechanisms as determined from large scale numerical simulation", Session 95 Fundamental Research in Fluid Mechanics: Turbulent Drag Reduction by Macromolecular Additives, Annual AIChE meeting, Indianapolis, IN., Nov. 6, 2002
216. Yves Dubief (speaker), Chris White, Eric S.G. Shaqfeh, Parviz Moin, Sanjiva Lele, "Modification of near wall coherent structures in polymer drag reduced flow: Simulation", Session EM, Paper EM03, Non-Newtonian Flows II, Monday, Nov. 25, 2002, APS-DFD Meeting, Univ. of Texas at Austin, Austin, Texas.
217. Vincent Terrapon (speaker), Parviz Moin, Eric S.G. Shaqfeh, "Brownian Dynamics in a Turbulent Channel Flow", Session EM, Paper EM05, Non-Newtonian Flows II, Monday, Nov. 25, 2002, APS-DFD Meeting, Univ. of Texas at Austin, Austin, Texas.
218. Rodrigo Teixeira, Hazen P. Babcock, Eric S.G. Shaqfeh, Steve Chu, "Flow-Gradient Plane Observation of Single Polymers in Steady Shear Flow", Session EM.009, NonNewtonian Flows II, APS Division of Fluid Dynamics 55th Annual Meeting, University of Texas at Austin, Austin, TX, Nov. 24-26, 2002
219. Eric S.G. Shaqfeh (speaker), Gandharv Bhatara, Alex Lee and Bamin Khomami, "A Study of Viscoelastic Hele-Shaw Cell Flow Using the Finite Element Method", XIIIth Annual Workshop on Numerical Methods in NonNewtonian Fluid Mechanics, June 5, 2003
220. Eric S.G. Shaqfeh, "Understanding Polymer Rheology by Examining Single DNA Molecules", Department Colloquium, Univ. of Texas at Austin, Sept. 16, 2003
221. Gandharv Bhatara, Bamin Khomami (speaker), Eric S.G. Shaqfeh, "A numerical study of viscoelastic free surface flows using the finite element method- Hele Shaw flows", 75th Annual Society of Rheology Meeting. Pittsburgh, PA Oct. 14, 2003
222. Charles Schroeder (speaker), Hazen Babcock, Eric S.G. Shaqfeh, Steven Chu "Influence of hydrodynamic interactions on the coil-stretch transition of polymers in extensional and mixed flows", 75th Annual Society of Rheology Meeting. Pittsburgh, PA Oct. 16, 2003
223. Rodrigo Teixeira(speaker), Hazen Babcock, Eric S.G. Shaqfeh, Steven Chu "Direct visualization of polymer tumbling in steady shear flow", 75th Annual Society of Rheology Meeting. Pittsburgh, PA Oct. 16, 2003
224. Costas Dimitropoulos(speaker), Eric Shaqfeh, Sanjiva K. Lele, and Parviz Moin, "Direct Numerical Simulation of Viscoelastic Boundary Layer Flow", AIChE Annual Meeting, San Francisco, CA; Paper 458a, Session 458, Novel Numerical Methods in Fluid Mechanics, Wednesday, Nov. 19, 2003 12:30pm
225. Rodrigo Teixeira, Hazen Babcock, Eric S.G. Shaqfeh, and Steve Chu, "Observations of Polymer Tumbling in Steady Shear Flows", AIChE Annual Meeting, San Francisco, CA; Session 86 Polymer Processing and Rheology I, AIChE Annual Meeting, Monday, Nov. 17, 2003 8:00 am
226. John Paschkewitz, Yves DuBief, Eric S.G. Shaqfeh, and Parviz Moin, "Direct Numerical Simulation of Polymer Drag Reduction in Viscoelastic Turbulent Channel Flow", Session 293 Turbulent Flows of Complex Fluids, AIChE Annual Meeting, Monday, Nov. 17, 2003, 5:15 pm.

227. Gandarv Bhatara, Eric S.G. Shaqfeh, Bamin Khomami, "A Study of Viscoelastic Free-Surface Flows Using the Finite Element Method– Hele Shaw Cell Flows", AICHE Annual Meeting, San Francisco, CA; Session 458, Novel Numerical Methods in Fluid Mechanics, Wednesday, Nov. 19, 2003 1:00pm
228. Charles Schroeder, Hazen Babcock, Eric S.G. Shaqfeh, Steve Chu, "Polymer Configuration Hysteresis in Extensional Flow: A Single Molecule Study", AICHE Annual Meeting, San Francisco CA. ; Session 302, Complex and Biofluid Dynamics, Wednesday, November 19, 2003 4:30 pm.
229. Eric S.G. Shaqfeh, Costas Dimitropoulos, John Paschkewitz, Yves DuBief, Parviz Moin, "On the mechanisms of turbulent drag reduction by fiber and polymer additives", NonNewtonian Flows Session, APS-DFD Meeting, Sheraton Meadowlands, November 23-25, 2003.
230. Yves DuBief, Chris White, Parviz Moin, Eric S.G. Shaqfeh, "Energy transfer mechanisms in the turbulent drag reduction by flexible polymer additives, NonNewtonian Flows Session, APS-DFD Meeting, Sheraton Meadowlands, November 23-25, 2003.
231. Vincent Terrapon, Yves Dubief, Parviz Moin, Eric S.G. Shaqfeh, "Brownian dynamics simulations of polymer stretch in turbulent channel flows", NonNewtonian Flows Session, APS-DFD Meeting, Sheraton Meadowlands, November 23-25, 2003.
232. E.S.G. Shaqfeh, "Progress and Prospects in Understanding the Dynamics of DNA in Flow", Department of Mechanical Engineering, The University of Michigan, January 23, 2004
233. E.S.G. Shaqfeh, "Progress and Prospects in Understanding the Dynamics of DNA in Flow", Department of Mechanical Engineering, The University of California at San Diego, January 26, 2004
234. E.S.G. Shaqfeh, "Progress and Prospects in Understanding the Dynamics of DNA in Flow", Department of Chemical Engineering, The University of Monash, Clayton, Australia, June 8, 2004
235. E.S.G. Shaqfeh, "Progress and Prospects in Understanding the Dynamics of DNA in Flow", Departamento de Fisica Fundamental, Universidad Nacional de Educacion a Distancia, Madrid, Spain, July 14, 2004
236. David Saintillan (speaker), Eric Darve, Eric S. G. Shaqfeh, "Dynamic simulations of the instability of sedimenting fibers", 21st International Congress of Theoretical and Applied Mechanics, August 15-21 2004, Warsaw, Poland.
237. E.S.G. Shaqfeh, "Progress and Prospects in Understanding the Dynamics of DNA in Flow", Institute for Computational and Mathematical Engineering, Stanford University, Oct. 14, 2004
238. E.S.G. Shaqfeh, "Progress and Prospects in Understanding Single Molecule DNA Flow Dynamics", Department of Chemical Engineering, The University of Houston, November 5, 2004.
239. E.S.G. Shaqfeh, "Progress and Prospects in Understanding Single Molecule DNA Flow Dynamics", Department of Mechanical Engineering, The University of California at Berkeley, Berkeley, CA, November 15, 2004.
240. E.S.G. Shaqfeh (speaker), Charles Schroeder, Rodrigo Teixeira, Steven Chu. "The Effects of Hydrodynamic Interactions in Shear and Linear Mixed Flows: Single Molecule DNA Experiments and Brownian Dynamics Simulation", Annual AICHE Meeting, Austin, TX, Nov. 8, 2004
241. Costas Dimitropoulos, E.S.G. Shaqfeh (speaker), P. Moin, S.K. Lele, "Skin Friction Drag Reduction in Turbulent Boundary Layers Using Polymer Additives", Annual AICHE Meeting, Austin, TX, Nov. 9, 2004
242. G. Bhatara, E.S.G. Shaqfeh, B. Khomami (speaker), "Effects of elasticity on free surface displacement flows with and without gravity: A computational study", Annual AICHE Meeting, Austin, TX, Nov. 9, 2004
243. D. Saintillan (speaker), E. Darve, E.S.G. Shaqfeh, "Pattern formation in sedimenting suspensions of spheroids", APS-DFD Annual Meeting, Session FN: Sedimentation. Westin Seattle, 11/21/04
244. V. Terrapon, Y. DuBief, P. Moin, E.S.G. Shaqfeh, "Lagrangian simulations of polymer drag reduction", APS-DFD Annual Meeting, Session GL: NonNewtonian Flows I. Westin Seattle, 11/22/04
245. Y. DuBief, V. Terrapon, S. Lele, E.S.G. Shaqfeh, P. Moin "On the dynamics of turbulent polymer flows at high drag reduction", APS-DFD Annual Meeting, Session GL: NonNewtonian Flows I. Westin Seattle, 11/22/04
246. Costas Dimitropoulos, E.S.G. Shaqfeh (speaker), Y. DuBief, P. Moin, S.K. Lele, "Skin Friction Drag Reduction in Turbulent Boundary Layers Using Polymer Additives", APS-DFD Annual Meeting, Session JD: Session Honoring William Reynolds II. Westin Seattle, 11/22/04
247. E.S.G. Shaqfeh (speaker), David Saintillan, Eric Darve, "On the growth of concentration fluctuations in the sedimentation of orientable and deformable particles", Department of Chemical Engineering, Monash University, Clayton, Victoria, Australia. 16 March 2005

248. D. Saintillan, Eric S.G. Shaqfeh, Eric Darve, "Concentration fluctuations in dilute suspensions of orientable and deformable particles under sedimentation", Annual AICHE meeting, Cincinnati, OH, Nov. 1 2005, paper 253a, Particulate and Multiphase Flows Session.
249. D. Saintillan, Eric Darve, Eric S.G. Shaqfeh, "Hydrodynamic interactions in colloidal dispersions of conducting rods under induced-charge electrophoresis", Annual AICHE meeting, Cincinnati, OH, Monday, Oct. 31, 2005, paper 55a, Interfacial phenomena/Colloidal dispersions Session.
250. V. Beck, Eric S.G. Shaqfeh, "Ergodicity-Breaking and conformational hysteresis in polymer dynamics near a surface stagnation point", Annual AICHE meeting, Cincinnati, OH Monday, Oct. 31, 2005, paper 129A, NonNewtonian Flows
251. V.A. Beck, Eric S.G. Shaqfeh, N.P. Teclerian, S.J. Muller, "Polymer chain dynamics in viscous flow through ordered arrays of posts", Annual AICHE meeting, Cincinnati, OH, Nov. 1 2005, paper 221a, Microscale Flows
252. V. Beck, Eric S.G. Shaqfeh, "Ergodicity-Breaking and conformational hysteresis in polymer dynamics near a surface stagnation point", 77th Annual Meeting of the Society of Rheology, Vancouver, Canada. Paper FS 28. October 18, 2005.
253. N.P. Teclerian, S.J. Muller, V.A. Beck, Eric S.G. Shaqfeh, "Controlling dynamics and conformations of DNA in flow through post arrays", 77th Annual Meeting of the Society of Rheology, Vancouver, Canada. Paper MR 8. October 19, 2005.
254. V.A. Beck, Eric S.G. Shaqfeh, N.P. Teclerian, S.J. Muller, "Polymer chain dynamics in viscous flow through ordered arrays of posts", 77th Annual Meeting of the Society of Rheology, Vancouver, Canada. Paper MR 9. October 19, 2005.
255. R.A. Teixeira, Eric S.G. Shaqfeh (speaker), S. Chu "The shear rheology and single molecule fluorescence microscopy of entangled DNA in solution", 77th Annual Meeting of the Society of Rheology, Vancouver, Canada. Paper SM7. October 18, 2005.
256. D. Saintillan, Eric Darve, Eric S.G. Shaqfeh, "Hydrodynamic interactions in colloidal dispersions of conducting rods under induced-charge electrophoresis", 77th Annual Meeting of the Society of Rheology, Vancouver, Canada. Paper SC7. October 19, 2005.
257. C. F. Li, R. Sureshkumar, B. Khomami, Y. Dubief, P. Moin and E.S.G. Shaqfeh. "Direct Numerical Simulation of Polymer-Induced Turbulent Drag Reduction: Comparison of Spectral and Compact Finite Difference Schemes", XIVth International Workshop on Numerical Methods for Viscoelastic Flows, Santa Fe, New Mexico, June (2005)
258. E.S.G. Shaqfeh, "DNA Dynamics in Flow: Periodic Tumbling, Conformational Hysteresis, and Ergodicity Breaking", Applied Biosystems, Co., Foster City, August 29, 2005.
259. E.S.G. Shaqfeh, "Ergodicity Breaking and Conformational Hysteresis in the Stretching Dynamics of Polymers in Flow", Department of Chemical Engineering, University of Florida, Gainesville, FL Nov. 7, 2005
260. E.S.G. Shaqfeh, "The sedimentation of rod-like particles in bulk and microfluidic flows", Fluid Mechanics Seminar, Stanford University, Stanford, CA. January 10, 2006.
261. E.S.G. Shaqfeh, "Progress and prospects in the dynamics of DNA in flow", Golden Gate Polymer Forum, Michael's Restaurant, Mountain View, CA. January, 17, 2006.
262. E.S.G. Shaqfeh, "The dynamics of rod-like particles under sedimentation and induced-charge electrophoresis", IUTAM Symposium, *Interactions for Dispersed Systems in Newtonian and Viscoelastic Fluids*, Guanajuato, Mexico, March 26-30, 2006.
263. D. Saintillan (speaker), E.S.G. Shaqfeh, E. Darve, "Hydrodynamic interactions in induced-charge electrophoresis of colloidal rod dispersions", Session: Microfluidics – Electrophoresis and Electroosmosis, APS-DFD Annual Meeting, Chicago, IL Nov. 22, 2005 (w/ contribution to the Gallery of Fluid Motion: "Sedimentation of a dilute suspension of fibers at low Reynolds number")
264. E.S.G. Shaqfeh, "Ergodicity breaking and Glassy Dynamics in the Stretching Flows of Single Polymer Molecules", Department of Chemical Engineering, Monash University, Clayton, Victoria, Australia. August 27, 2006
265. E.S.G. Shaqfeh, G. Iaccarino, M. Shin, "A RANS model for turbulent drag reduction by polymer injection and comparison to DNS, 78th Annual Soc. of Rheology meeting, Portland, Maine, Oct. 8-12, 2006, Paper FM2
266. E.S.G. Shaqfeh, D. Saintillan, E. Darve, "Effect of flexibility on the shear-induced migration of short polymers in parabolic channel flow", 78th Annual Soc. of Rheology meeting, Portland, Maine, Oct. 8-12, 2006, Paper MF16
267. E.S.G. Shaqfeh, V. Beck, B. Hoffman, "Ergodicity-breaking and glassy dynamics in the mixed flows of single polymer molecules", 78th Annual Soc. of Rheology meeting, Portland, Maine, Oct. 8-12, 2006, Paper PS4

268. E.S.G. Shaqfeh, D. Saintillan, E. Darve, "The dynamics of rodlike particles under sedimentation and induced-charge electrophoresis", 78th Annual Soc. of Rheology meeting, Portland, Maine, Oct. 8-12, 2006, Paper SC13
269. E.S.G. Shaqfeh, G. Iaccarino, M. Shin, "A RANS model for turbulent drag reduction by polymer injection and comparison to DNS, 2006 Annual AICHE Meeting, November 14, San Francisco Hilton, San Francisco, CA, Paper 312c
270. E.S.G. Shaqfeh, D. Saintillan, E. Darve, "Effect of flexibility on the shear-induced migration of short polymers in parabolic channel flow", 2006 Annual AICHE Meeting, November 14, San Francisco Hilton, San Francisco, CA, Paper 247g
271. E.S.G. Shaqfeh, V. Beck, B. Hoffman, "Ergodicity-breaking and glassy dynamics in the stretching flows of single polymer molecules", 2006 Annual AICHE Meeting, November 14, San Francisco Hilton, San Francisco, CA, Paper 179e
272. E.S.G. Shaqfeh, D. Saintillan, E. Darve, "The dynamics of rodlike particles under sedimentation and induced-charge electrophoresis", 2006 Annual AICHE Meeting, November 13, San Francisco Hilton, San Francisco, CA, Paper 89a
273. D. Saintillan, E.S.G. Shaqfeh, E. Darve, "Concentration Fluctuations in the Dilute Sedimentation of Anisotropic Particles", 15th U.S. National Congress on Theoretical and Applied Mechanics, June 25-30, 2006, Boulder, CO
274. E.S.G. Shaqfeh, V. Beck, B. Hoffman, "Ergodicity-breaking and glassy dynamics in the stretching flows of single polymer molecules", The International Workshop on Mesoscale and Multiscale Description of Complex Fluids, Paper R12 Prato-Monash Center, Prato, Italy, July 5-8, 2006.
275. E.S.G. Shaqfeh, G. Bhatara, A. Lee, B. Khomami, "The Effect of Fluid Elasticity on Free Surface Displacement and Coating Flows", Palo Alto Research Center, 3333 Coyote Hill Road, Palo Alto, CA, January 8, 2007.
276. E.S.G. Shaqfeh, D. Saintillan, B. Hoffman, E. Darve, "The dynamics of colloidal rod suspensions under induced-charge electrophoresis.", Symposium honoring 2007 ACS Colloid and Surface Chemistry Award Winner – William B. Russel, 233rd ACS National Meeting, Chicago, IL, March 26, 2007
277. E.S.G. Shaqfeh, "The dynamics of rod-like particles under sedimentation and induced-charge electrophoresis", School of Chemical and Biomolecular Engineering, Cornell University, April 30, 2007
278. E.S.G. Shaqfeh, "The dynamics of single polymer molecules in stretching flows – the end of a thirty year debate", Department of Mechanical Engineering, UC Santa Barbara, April 23, 2007.
279. E.S.G. Shaqfeh, "The numerical simulation of turbulent drag reduction by fiber and polymer additives (for internal and external flow applications)", Office of Naval Research Workshop on Polymer Drag Reduction for Surface Ships, One Virginia Square, Arlington, VA, Sept 6, 2007
280. C. Lueth, E.S.G. Shaqfeh, "The shear flow processing of DNA scaffolds for molecular wires", AICHE Annual Meeting, (Session #182 Microfluidics and Small-Scale Flows) Salt Lake City, Utah, Nov. 4-8. 2007
281. A. Dambal, E.S.G. Shaqfeh, "The equilibrium conformation dynamics of λ DNA in the ABEL trap", AICHE Annual Meeting, (Session #313 NonNewtonian Flows), Salt Lake City, Utah, Nov. 4-8. 2007
282. B. Hoffman, E.S.G. Shaqfeh, "The dynamics of the coil-stretch transition in long, flexible polymers subjected to mixed linear flow fields", Society of Rheology Annual Meeting, (Session on Polymer Solutions – PS12) Salt Lake City, Utah, Oct. 8, 2007
283. E.S.G. Shaqfeh, "Single molecule studies of the effect of flow type on the dynamics of polymer solutions", 60th Annual Meeting of the APS Division of Fluid Dynamics, Salt Lake City, Utah (Invited Minisymposium on Deformable Particle Suspensions and Solutions), Nov. 18-20, 2007
284. O. Marxen, G. Iaccarino, E.S.G. Shaqfeh, "Influence of a Localized Roughness Element on Disturbance Amplification in a Laminar Boundary Layer at $Ma=4.8$ ", 60th Annual Meeting of the APS Division of Fluid Dynamics, Salt Lake City, Utah (Session NN: Supersonic and Hypersonic Flows). Nov. 18-20, 2007
285. O. Marxen, G. Iaccarino, E.S.G. Shaqfeh, "Numerical simulation of the effect of a roughness element on boundary-layer instability, 38th Fluid Dynamics Conference and Exhibit/ 40th Thermophysics Conference, June 2008, Seattle, Washington
286. D. Richter, E.S.G. Shaqfeh, G. Iaccarino, "Numerical investigations of fully 3-D, time-dependent viscoelastic flows past bluff bodies at moderate to high Reynolds numbers" Session: CF-6. Viscoelastic Turbulence, The XVth International Congress on Rheology in Monterey, California August 5, 2008 (Tuesday) 4:10.
287. C. Lueth, E.S.G. Shaqfeh, "Dynamics of Single Tethered DNA in Shear Flow" Session: HP-1. Unentangled Polymers, The XVth International Congress on Rheology in Monterey, California August 4, 2008 (Monday) 9:45.

288. S. Somani, E.S.G. Shaqfeh, R. Prakash “A Brownian dynamics study of the effect of solvent quality on the coil-stretch transition”, Session: HP-1. Unentangled Polymers, The XVth International Congress on Rheology in Monterey, California August 4, 2008 (Monday) 10:45.
289. A. Dambal, E.S.G. Shaqfeh, “ Slip-link simulations and comparison to single molecule studies of entangled DNA in shear and extensional flow” Session: HP-3. Entangled Polymers I, The XVth International Congress on Rheology in Monterey, California August 4, 2008 (Monday) 2:50.
290. B. Hoffman, E.S.G. Shaqfeh, “Dynamic simulation of colloidal rod suspensions with application to nano-barcodes Session: SC-8. Suspension Hydrodynamics II, The XVth International Congress on Rheology in Monterey, California August 7, 2008 (Thursday) 9:45.
291. E.S.G. Shaqfeh, “The dynamics of single molecule DNA in flow”, Department Seminar, Texas Tech University, Lubbock, Texas, February 15, 2008.
292. E.S.G. Shaqfeh, A. Dambal “Slip-Link Simulations and Comparison to Single Molecule Studies of Entangled DNA In Shear Flow”, 2008 Annual AIChE Meeting, Nov. 16-18, Philadelphia, PA Session 01j10 NonNewtonian Flows.
293. E.S.G. Shaqfeh, C. Lueth “Dynamics of Single Tethered DNA In Shear Flow at High Weissenberg Numbers”, 2008 Annual AIChE Meeting, Philadelphia, PA Session 01j04 Complex-Fluid and Bio-Fluid Dynamics I
294. E.S.G. Shaqfeh, B. Hoffman “The Dynamics and Stability of Polarizeable, Brownian Rod Suspensions Under Flow”, 2008 Annual AIChE Meeting, Philadelphia, PA Session 01j03 In Honor of Bud Homayouni III: Stability and Nonlinear Hydrodynamics
295. E.S.G. Shaqfeh, “The Dynamics and Stability of the Microflows of Polarizeable, Colloidal Rod Suspensions”, Department of Chemical and Biological Engineering, Rice University, Department Colloquium, December 4, 2008.
296. D. Richter, G. Iaccarino, E.S.G. Shaqfeh, “Numerical simulations of time-dependent, fully 3-D viscoelastic flows past bluff bodies”, APS-DFD Meeting, San Antonio, Texas, November 24, 2008.
297. Marxen, O., E.S.G. Shaqfeh, G. Iaccarino, “High speed boundary layer with roughness”, APS-DFD Meeting, San Antonio, Texas, Nov. 24, 2008
298. Marxen, O., G. Iaccarino, E.S.G. Shaqfeh, G. Groskopf, M.J. Kloker, “Boundary layer instability behind a 3-D roughness element at $Ma=4.8$ ”, Transition study open forum group, 47th AIAA Aerospace Sciences Meeting and Exhibit, Jan. 5-8, 2009, Orlando, FL.
299. E.S.G. Shaqfeh (speaker), B. Hoffman, D. Saintillan, E. Darve, “Simulating the microfluidics of non-spherical particulate suspensions”, SIAM Conference on Computational Science and Engineering, MS152: Multiscale Methods for Hydrodynamics at the Micro and Nano-Scales: Fluid-Structure Interaction - Part III of III; March 6, 2009; (Keynote Presentation)
300. E.S.G. Shaqfeh, “Single Molecule DNA Dynamics in Flow”, Weizmann Institute of Science, Department of Physics, Department Colloquium, April 2, 2009, Rehovot, Israel.
301. O. Marxen, G. Iaccarino, E.S.G. Shaqfeh, “Linear and non-linear disturbance evolution in a compressible boundary-layer with localized roughness”; Seventh IUTAM Symposium on Laminar-Turbulent Transition, June 26, 2009, KTH Royal Institute of Technology, Stockholm, Sweden, Session: *Transition in High-speed Flows 3* ; Paper O-67
302. O. Marxen, E.S.G. Shaqfeh, G. Iaccarino, “Instability of a supersonic boundary-layer with localized roughness” Minnowbrook VI, Workshop on Flow Physics and Control for Internal and External Aerodynamics, Aug. 23-26, 2009; Syracuse, University, Blue Mountain Lake, NY
303. O. Marxen, T. Magin, G. Iaccarino, E.S.G. Shaqfeh, “ Hypersonic boundary-layer instability with chemical reactions”, Paper # 2010-707 48th AIAA Aerospace Sciences Meeting. 4 – 7 Jan 2010, Orlando, Florida.
304. E.S.G. Shaqfeh, “The Nonlinear Dynamics of DNA/Polymers in Extensional Dominated Flows: Solutions and Melts”, Invited talk, IMA Workshop on Complex Fluids, University of Minnesota, Minneapolis, MN, September, 14, 2009.
305. E.S.G. Shaqfeh, Invited Tutorial, “The Rheology of Polymers Solutions: Parts I and II”, IMA Workshop on NonNewtonian Fluid Dynamics, University of Minnesota, Minneapolis, MN, October, 11, 2009.
306. E.S.G. Shaqfeh, Shenghan Yan, G. Fuller, “Collective Behavior of Colloidal Particles Trapped at a Fluidic Interface”, 81st Annual Meeting of the Society of Rheology, Madison, WI, October 19, 2009.
307. E.S.G. Shaqfeh, Chris Lueth, Guihua Yu, “The Dynamics of Tethered DNA in Shear: Cyclic Dynamics and Processing for Molecular Wire Scaffolds”, 81st Annual Meeting of the Society of Rheology, Madison, WI, October 19, 2009.

308. Eric S. G. Shaqfeh, Ajey Dambal and Amit Kushwaha, "Slip-Link Simulations of Entangled DNA with Comparison to Experiments" Complex -Fluid and BioFluid Dynamics Session, Paper 248b, AICHE Annual Meeting, Nashville, TN, November 10, 2009
309. Eric S. G. Shaqfeh, Shikha Somani and Ravi Prakash Jagadeeshan, "A Brownian Dynamics Study of the Effect of Solvent Quality On the Coil-Stretch Transition", NonNewtonian Flows Session, Paper 217a, AICHE Annual Meeting, Nashville, TN, November 10, 2009
310. Hong Zhao, Eric S.G. Shaqfeh, "Numerical simulation of platelet margination in microcirculation", EG.00007, 62nd Annual Meeting of the APS Division of Fluid Dynamics November 22, 2009, Minneapolis, MN
311. A. Saibaba, E.S.G. Shaqfeh, E. Darve, "Concentration distributions of arbitrary shaped particles in microfluidic channel flows", HF.00002, 62nd Annual Meeting of the APS Division of Fluid Dynamics November 23, 2009, Minneapolis, MN
312. O. Marxen, G. Iaccarino, E.S.G. Shaqfeh, "Uncertainty quantification of the instability in a supersonic boundary layer with roughness", AP.00008, 62nd Annual Meeting of the APS Division of Fluid Dynamics November 22, 2009, Minneapolis, MN
313. Guihua Yu, Eric S.G. Shaqfeh, Zhenan Bao; "Controlling the stretching and alignment of tethered DNA with microfluidics for organic molecule electronics" Materials Research Society 2010 Spring meeting, San Francisco, CA (April 5-9) Technical program: KK: Micro- and Nanofluidic Systems for Device Assembly and Bioanalysis
314. E.S.G. Shaqfeh, "The microfluidics of colloidal particle-vesicle-capsule mixtures with application to blood additives", Invited talk, IMA Workshop on Microfluidics: Electrokinetic and Interfacial Phenomena, University of Minnesota, Minneapolis, MN, December 8, 2009.
315. E.S.G. Shaqfeh, "The Microfluidics of NonSpherical Colloidal Particles and Vesicles with Application to Blood Additives", Microfluidic Fundamentals and Inkjet Technology (IJ+BI+MN-WeM), AVS 56th International Symposium & Exhibition, November, 11, 2009, San Jose, CA (Invited Talk)
316. Shirin Ghaffari, Olaf Marxen, Gianluca Iaccarino and Eric S.G. Shaqfeh, "Numerical simulations of hypersonic boundary-layer instability with wall blowing", 48th AIAA Aerospace Sciences Meeting. 4 - 7 Jan 2010, Orlando, Florida.
317. Shikha Somani, R. Prakash, E.S.G. Shaqfeh "Conformational Hysteresis of a Single DNA Molecule in Linear 3D Flows: A Brownian Dynamics Study", MRS Spring 2010 Meet(April 5-9 2010, San Francisco) April 07, 2010
318. Shikha Somani, R. Prakash, E.S.G. Shaqfeh, "Flow controlled coil-to-stretch transition of a single DNA molecule: A Brownian dynamics study", ACS Annual Meeting, March 21-25 2010, San Francisco
319. E.S.G. Shaqfeh, "The Microfluidics of NonSpherical Colloidal Particles and Vesicles with Application to Blood Additives", Invited Speaker, 'Small scale hydrodynamics: microfluidics and thin films'; Banff International Research Station Workshop; Feb 7-12, 2010 (Banff, Alberta, CANADA).
320. E.S.G. Shaqfeh, "The Microfluidics of NonSpherical Colloidal Particles and Vesicles with Application to Blood Additives", Department Colloquium, Department of Mechanical Engineering, Drexel University, Philadelphia, PA, February 12, 2009 (Banff, Alberta, CANADA).
321. E.S.G. Shaqfeh, "The Microfluidics of NonSpherical Colloidal Particles and Vesicles with Application to Blood Additives", Chemical Engineering Platinum Colloquium, Department of Chemical Engineering, Monash University, Clayton, Victoria. AUSTRALIA. April 7, 2010
322. E.S.G. Shaqfeh, "The Microfluidics of NonSpherical Colloidal Particles and Vesicles with Application to Platelet Margination", ME 398 Biomechanical Engineering Seminar, Department of Mechanical Engineering, Stanford University, Stanford, CA, May 17, 2010
323. Amit Kushwaha, E.S.G. Shaqfeh, "Slip-link simulations of entangled worm-like and ILC chains in planar extensional flow with comparison to experiments", International Workshop on Numerical Methods in NonNewtonian Fluid Mechanics, June 13-16, 2010; Northampton, MA
324. David Richter, Gianluca Iaccarino, E.S.G. Shaqfeh, "Simulations of wake stabilization in viscoelastic flow past a cylinder", International Workshop on Numerical Methods in NonNewtonian Fluid Mechanics, June 13-16, 2010; Northampton, MA
325. Guihua Yu, Eric S. G. Shaqfeh, and Zhenan Bao, " Controlled Tethering and Stretching of DNA Molecules in Shear Flow for Organic Molecule Electronics Wednesday, November 10, 2010, AICHE Annual Meeting, Salt Lake City, Utah
326. Arash Abedijaberi, Eric S. G. Shaqfeh, and Bamin Khomami, " A Computational Study of the Influence of Viscoelasticity On the Interfacial Dynamics of Dip Coating Flows" Tuesday, November 9, 2010, AICHE Annual Meeting, Salt Lake City, Utah

327. Eric S. G. Shaqfeh, and Sean Fitzgibbon, "On the Surface Adsorption of Colloidal Particles in Microfluidic Flows", Tuesday, November 9, 2010, AIChE Annual Meeting, Salt Lake City, Utah
328. Hong Zhao and Eric S. G. Shaqfeh, "Numerical Simulation of Cross-Flow Margination of Platelets in Small Vessels" Tuesday, November 9, 2010, AIChE Annual Meeting, Salt Lake City, Utah
329. Amit Kushwaha and Eric S. G. Shaqfeh, "Slip-Link Simulations of Entangled Polymers in Planar Extensional and Planar Mixed Flows with Comparison to Experiments", Tuesday, November 9, 2010, AIChE Annual Meeting, Salt Lake City, Utah
330. David H. Richter, Gianluca Iaccarino, Eric S. G. Shaqfeh, "Simulations of Wake Stabilization in Viscoelastic Flow Past a Cylinder" , Tuesday, November 9, 2010, AIChE Annual Meeting, Salt Lake City, Utah
331. Guihua Yu, Amit Kushwaha, Eric S.G. Shaqfeh, Zhenan Bao, Paper FD9, "Controlled DNA tethering and stretching with microfluidics for single-molecule electronics", Session: Micro- and Nano-Fluidics, October 25, 2010 (Monday) 2:45, The Society of Rheology 82nd Annual Meeting in Santa Fe, NM
332. Amit Kushwaha, Eric S.G. Shaqfeh, Paper MS5, "Slip-link simulations of Entangled Polymers in Planar Extensional and Planar Mixed Flows with Comparison to Experiments", Session: Polymer Rheology: Melts, Solutions and Blends, October 25, 2010 (Monday) 3:35, The Society of Rheology 82nd Annual Meeting in Santa Fe, NM
333. Hong Zhao, Eric S.G. Shaqfeh, Paper SC11, "The dynamics of a lipid vesicle in simple shear flow", Session: Suspensions, Colloids and Emulsions, October 25, 2010 (Monday) 4:00, The Society of Rheology 82nd Annual Meeting in Santa Fe, NM
334. David Richter, Gianluca Iaccarino, Eric S.G. Shaqfeh, Paper CR18, "Effects of viscoelasticity on the inertial wake in flow past a circular cylinder" Session: Computational Rheology: Behavior 'in Silico', October 26, 2010 (Tuesday) 11:10, The Society of Rheology 82nd Annual Meeting in Santa Fe, NM
335. Arash Abedijaberi, Bamin Khomami, Eric S.G. Shaqfeh, Paper SI23, "A computational study of the influence of viscoelasticity on the interfacial dynamics of dip coating flows", Session: Surface and Interfacial Rheology, October 26, 2010 (Tuesday) 2:45, The Society of Rheology 82nd Annual Meeting in Santa Fe, NM
336. Amit Kushwaha and Eric S. G. Shaqfeh, "Slip-Link Simulations of Entangled Polymers in Planar Extensional with Comparison to Experiments", 5th Pacific Rim Conference on Rheology, August 1-6, Hokkaido University, Sapporo, Hokkaido, Japan
337. Guihua Yu, Amit Kushwaha, Eric S.G. Shaqfeh, Zhenan Bao, "Controlled DNA tethering and stretching with microfluidics for single-molecule electronics", 5th Pacific Rim Conference on Rheology, August 1-6, Hokkaido University, Sapporo, Hokkaido, Japan
338. Eric S.G. Shaqfeh, David Richter, Gianluca Iaccarino, Paper CR18, "Wake stabilization in viscoelastic flow past a cylinder: Do we understand elastic effects on transition in inertial flows?", ICR International Workshop: Unsettled Issues in Rheology and Dynamics of Softmatters, Aug.8-10, 2010 , Institute for Chemical Research, Kyoto University Gokasho, Uji, Kyoto 611-0011 Japan
339. Hong Zhao, Eric S.G. Shaqfeh, Paper SC11, "The dynamics and rheology of vesicle suspensions", ICR International Workshop, Unsettled Issues in Rheology and Dynamics of Softmatters, Aug.8-10, 2010 , Institute for Chemical Research, Kyoto University Gokasho, Uji, Kyoto 611-0011 Japan
340. Olaf Marxen, Gianluca Iaccarino, Eric S.G. Shaqfeh, Paper CE.00002, "Hypersonic boundary-layer instability with localized roughness", Session CE: Instability: Boundary Layers II, 1:00 PM; 3:10 PM, Sunday, November 21, 2010, 63rd Annual Meeting of the APS Division of Fluid Dynamics
341. Shirin Ghaffari, Olaf Marxen, Gianluca Iaccarino, Eric S.G. Shaqfeh, Thierry Magin Paper CE.00003, "Stability Analysis of a Mach 10 Boundary Layer with Nonequilibrium Chemistry", Session CE: Instability: Boundary Layers II, 1:00 PM; 3:10 PM, Sunday, November 21, 2010, 63rd Annual Meeting of the APS Division of Fluid Dynamics
342. David Richter, Gianluca Iaccarino, Eric S.G. Shaqfeh, Paper MF.00006, "Simulations of high Reynolds number wake transition in the presence of viscoelasticity", Session MF: Non-Newtonian Flows I 8:00 AM; 10:10 AM, Tuesday, November 23, 2010, Long Beach Convention Center Room: 103A; 63rd Annual Meeting of the APS Division of Fluid Dynamics
343. Hong Zhao, Eric S.G. Shaqfeh, Paper RK.00002, "The dynamics of a lipid vesicle in shear flow", Session RK: Biofluids: Cellular IV; 3:05 PM; 4:49 PM, Tuesday, November 23, 2010 Long Beach Convention Center Room: 201B; 63rd Annual Meeting of the APS Division of Fluid Dynamics
344. Eric S.G. Shaqfeh, Hong Zhao, Andrew Spann, "The margination of platelets in the blood microvasculature", Department Seminar, The LeVich Institute and Department of Chemical Engineering, City College of New York, New York, NY, Tuesday, November 30, 2010
345. Eric S.G. Shaqfeh, Hong Zhao, Andrew Spann, "The dynamics and rheology of vesicle suspensions: Platelet margination", Fluids group seminar, Department of Chemical Engineering, University of California at Santa Barbara, February, 9, 2011.

346. Eric S.G. Shaqfeh, Hong Zhao, Andrew Spann, "The Microfluidics of Particle/ Vesicle Mixtures in the Microvasculature", SIAM Conference on Computational Science and Engineering, MS85 Computational Algorithms for Simulating Particulate Flows -Part II of III, March 2, 2011, Reno, NV (Invited Talk).
347. Eric S.G. Shaqfeh, Hong Zhao, Andrew Spann, "Platelet Margination in the Microvasculature", Institute for Surgical Research, Brooke Medical Center (ARMY), San Antonio, TX, April 6, 2011.
348. Eric S.G. Shaqfeh, Hong Zhao, Andrew Spann, "Platelet Margination in the Microvasculature", Fluid Mechanics Seminar, University of California at San Diego, April 11, 2011.
349. Eric S.G. Shaqfeh, Hong Zhao, Andrew Spann, "Platelet Margination in the Microvasculature", Department Colloquium, Chemical Engineering Department, Lehigh University, Bethlehem, PA, April 20, 2011.
350. Eric S.G. Shaqfeh, Hong Zhao, Andrew Spann, "The Microfluidics of Particle/ Vesicle Mixtures in the Microvasculature", Department of Chemical Engineering, Penn State University, State College, PA, April 21, 2011.
351. Hong Zhao, Andrew Spann, Eric S.G. Shaqfeh "The rheology of nondilute vesicle suspensions", Paper 282f, 2011 AICHE Annual Meeting, Minneapolis, MN October 16-21, 2011, Area 1-J, Colloidal Hydrodynamics session.
352. Guihua Yu, Melburne C. LeMieux, Benjamin C-K. Tee, Zhenan Bao, Eric S.G. Shaqfeh "Solution-Based Assembly of Large-Scale, Unidirectionally-Aligned Carbon Nanotubes for High-Performance Transistors", 2011 AICHE Annual Meeting, Minneapolis, MN October 16-21, 2011, Session 08E, "Graphene/CNT Based Devices" in Materials Engineering and Sciences Division.
353. Arash Abedijaberi, Bamin Khomami, Eric S.G. Shaqfeh, "Plunging of Solid Surfaces Into the Viscoelastic Fluid: An Experimental/Numerical Study", 2011 AICHE Annual Meeting, Minneapolis, MN October 16-21, 2011, Area 1-J, Complex Fluids
354. Bryan R. Smith, Michael Shu, Eric S. G. Shaqfeh, Sam Gambhir, "Integrated Intravital Microscopy and Mathematical Simulation Approach to Uncover Surprising Differences in Extravasation Between Quantum Dots and Nanotubes in Tumor" 2011 World Molecular Imaging Congress, Sept. 7-10, 2011, San Diego, CA
355. Shenghan Yan, Eric S.G. Shaqfeh, Gerry Fuller, Paper SI7: Porous media model and collective behaviour of colloidal particles trapped at a fluidic interface; Session: Surface and Interfacial Rheology, October 10, 2011 (Monday) 1:55 Society of Rheology Annual Meeting, Cleveland, OH.
356. Amit Kushwaha, Eric S.G. Shaqfeh, Paper MB34: Slip link simulations of entangled polymers under extensional/mixed flow: Dynamics of viscosity thickening; Session: Rheology of Polymer Melts and Blends, October 12, 2011 (Wednesday) 4:00, Society of Rheology Annual Meeting, Cleveland, OH.
357. Sourav Padhy, Eric S.G. Shaqfeh, Gianluca Iaccarino Paper FS22: Simulations of a sphere sedimenting in a viscoelastic fluid under the action of orthogonal shear; Session: NonNewtonian Flows and Stability, October 12, 2011 (Wednesday) 4:50 Society of Rheology Annual Meeting, Cleveland, OH.
358. Travis Walker, Theresa Hsu, Gerry Fuller, Eric S.G. Shaqfeh, Paper FS27: Rinsing flows using non-Newtonian fluids; Session: Non-Newtonian Flows and Stability, October 13, 2011 (Thursday) 10:50 Society of Rheology Annual Meeting, Cleveland, OH.
359. E.S.G. Shaqfeh, "The flow of fiber suspensions and polymer solutions", FLOW Summer school in Micro and Complex flow, August 22-August 25, 2011, KTH Royal Institute of Technology, Stockholm, Sweden, Linn FLOW Centre, KTH Mechanics
360. Eric S.G. Shaqfeh, H. Zhao, A. Spann, V. Narsimhan, "Toward a Computer Simulation of Hemostasis in the Microvasculature", Department Colloquium, Illinois Institute of Technology, Chicago, IL, September 21, 2011.
361. Arash Abedijaberi, Eric S.G. Shaqfeh, Bamin Khomami, "Plunging of Solid Surfaces Into the Viscoelastic Fluid: An Experimental/Numerical Study", Paper 79f, AICHE Annual Meeting, Minneapolis, MN, Area 1J: Complex Fluids, October 18, 2011
362. Hong Zhao, Eric S.G. Shaqfeh, Andrew Spann, "The Rheology of Non-Dilute Vesicle Suspensions", Paper 282f, AICHE Annual Meeting, Minneapolis, MN, Area 1J: Colloidal Hydrodynamics II, October 18, 2011
363. Guihua Yu, M.C. Lemieux, B. C-K. Tee, Eric S.G. Shaqfeh, Zhenan Bao, "Solution-Based Assembly of Large-Scale, Unidirectionally-Aligned Carbon Nanotubes for High-Performance Transistors" Paper 282f, AICHE Annual Meeting, Minneapolis, MN, Area 1J: Graphene and Carbon Nanotube Based Devices, October 18, 2011

364. Eric S.G. Shaqfeh “Part: 1:Polymer length dependence of single molecule extension in shear flow & Part 2: Why does orthogonal shear have such a big effect on particle sedimentation in viscoelastic fluids?”, *Polymers in Fluids*, European workshop on complex fluids, Nice, France, 14-15 November, 2011 (Invited, Keynote)
365. Eric S. G. Shaqfeh, “Toward a Computer Simulation of Platelet Margination and Adhesion in the Microcirculation”, *The Dynamic Flow Assay Workshop*, Royal College of Surgeons, Dublin Ireland, 16 November, 2011 (Invited Leadoff)
366. L. Guglielmini, N. Autrusson, A. Kushwaha, E.S.G. Shaqfeh, H. Stone, “Buckling transition of a flexible fiber at a surface stagnation point”, 64th Annual Meeting of the APS-DFD, November 20-22, 2011, Baltimore, MD. Session E17: Viscous Flows
367. H. Zhao, E.S.G. Shaqfeh, “The Brownian dynamics of a lipid vesicle”, 64th Annual Meeting of the APS-DFD, November 20-22, 2011, Baltimore, MD. Session G29: Biofluids: Cellular III: Vesicles
368. A. Spann, H. Zhao, E.S.G. Shaqfeh, “Dynamics and phase diagrams for highly non-spherical vesicles in shear flow computed with Loop subdivision surfaces”, 64th Annual Meeting of the APS-DFD, November 20-22, 2011, Baltimore, MD. Session G29: Biofluids: Cellular III: Vesicles
369. Eric S.G. Shaqfeh, “A Computer Simulation of Platelet Margination in the Microcirculation”, Department of Chemical Engineering, Columbia University, NY, NY. November 22, 2011.
370. Eric S.G. Shaqfeh “Platelet Margination in the Microcirculation”, School of Chemical Engineering, Purdue University, West Lafayette, IN, February 7, 2012.
371. Eric S.G. Shaqfeh, “A Computer Simulation of Platelet Margination and Adsorption in the Microcirculation”, Blood Research Institute, the Blood Center of Wisconsin, Milwaukee, WI, February 28, 2012.
372. Eric S.G. Shaqfeh, “DNA in Flow”, Department of Mechanical Engineering, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, March 18, 2012 (Inaugural Lecture)
373. Eric S.G. Shaqfeh, “Platelet Margination in the Microcirculation”, Department of Mechanical Engineering, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, March 19, 2012 (Department Seminar)
374. Eric S.G. Shaqfeh, “Platelet Margination in the Microcirculation”, Department of Mechanical Engineering, Pontificia Universidade Catlica , Rio de Janeiro, Brazil, March 15, 2012 (Department Seminar)
375. Eric S.G. Shaqfeh, “How Erythrocytes Push Platelets Around to Keep Us Alive”, Department of Chemical Engineering, University of Colorado at Boulder, Boulder, CO, April 17, 2012 (Department Seminar)
376. Andrew Spann; Hong Zhao; Eric S. G. Shaqfeh, “The Dynamics and Rheology of Lipid Vesicle Suspensions”, The XVIth International Congress on Rheology - Lisbon, Portugal, Complex Fluids Symposium, Monday, Aug. 6, 2012
377. Sourav Padhy; Travis Walker; Sreenath Krishnan; Mauro Rodriguez; Eric S.G Shaqfeh; Gianluca Iaccarino, “The effect of orthogonal shear on the sedimentation of particles in viscoelastic fluids”, The XVIth International Congress on Rheology - Lisbon, Portugal, Complex Fluids Symposium, Monday, Aug. 6, 2012
378. Amit Kushwaha; Eric S. G. Shaqfeh, “On the polymer length dependence of single molecule extension in shear flow”, The XVIth International Congress on Rheology - Lisbon, Portugal, Complex Fluids Symposium, Tuesday, Aug. 7, 2012
379. Vivek Narsimhan; Hong Zhao; Eric S. G. Shaqfeh, “Modeling and simulation of red blood cells flowing through small microchannels”, The XVIth International Congress on Rheology - Lisbon, Portugal, Complex Fluids Symposium, Thursday, Aug. 9, 2012
380. Eric S.G. Shaqfeh, “Computer Simulation of Vesicle and Capsule Suspensions in Flow ”, Department of Chemical Engineering, Carnegie Mellon University, October 25, 2012 (Department Seminar)
381. Sourav Padhy, Sreenath Krishnan, Mauro Rodriguez, Eric S.G. Shaqfeh (speaker), Gianluca Iaccarino, Jeffrey F. Morris, and N. Tonmukayakul, “The Effect of Orthogonal Shear on the Sedimentation of Particles in Viscoelastic Fluids”, Annual AIChE Meeting, Pittsburgh, PA October 28- November 2, 2012; Particulate and Multiphase Flows I, Area 1J.
382. Andrew Spann (speaker), Hong Zhao, Eric S.G. Shaqfeh, “Asymmetric Vesicle Instability in Extensional Flow” , Session E18: Biofluids: Vesicles, 65th Annual Meeting of the APS Division of Fluid Dynamics, Volume 57, Number 17 ; Sunday; Tuesday, November 18–20, 2012; San Diego, California
383. Sean Fitzgibbon (speaker) , Hong Zhao, Eric S.G. Shaqfeh, “Simulation of the Effect of Red Blood Cell Collisions on Platelet Adsorption”, Session M16: Biofluids: Blood Cells, 65th Annual Meeting of the APS Division of Fluid Dynamics, Volume 57, Number 17 ; November 18-20, 2012; San Diego, California

384. Andrew Spann (speaker), Hong Zhao, Vivek Narsimhan, Eric S.G. Shaqfeh, “Asymmetric Vesicle Instabilities in Uniaxial and Planar Extensional Flow’s” , Paper BS1, Feb. 13, 2013, *Rheology in Biological Systems*, 84th Society of Rheology Meeting, Pasadena CA.
385. Vivek Narsimhan (speaker), Hong Zhao, Eric S.G. Shaqfeh, “Modeling the concentration distribution of a low-Reynolds number suspension of vesicles and red blood cells in wall-bounded shear flow” , Paper BS3, Feb. 13, 2013, *Rheology in Biological Systems*, 84th Society of Rheology Meeting, Pasadena CA.
386. Sean Fitzgibbon (speaker), Eric S.G. Shaqfeh, “A multi-scale view of platelet adhesion in high shear” , Paper BS6, Feb. 13, 2013, *Rheology in Biological Systems*, 84th Society of Rheology Meeting, Pasadena CA.
387. Eric Shaqfeh(speaker), Shenghan Yan, Gerry Fuller, “Porous media model and collective behavior of colloidal particles trapped at a fluidic interface” , Paper SC35, Feb. 13, 2013, *Suspensions and Colloids*, 84th Society of Rheology Meeting, Pasadena CA.
388. Bryan Smith(speaker), Preyas Shah, Sam Gambhir, Eric S.G. Shaqfeh, “Combined Experimental and Computational Approaches to Probe Nanoparticle Extravasation Design Principles”, World Molecular Imaging Congress, Sept. 18-21, 2013, Savannah, GA.
389. Sourav Padhy, Sreenath Krishnan, Mauro Rodriquez, Eric S.G. Shaqfeh (speaker), Gianluca Iaccarino, Jeffrey F. Morris, and N. Tonmukayakul, “The Sedimentation of Particles under Orthogonal Shear in Viscoelastic Fluids”, Department Seminar, Department of Chemical and Biological Engineering, University of British Columbia, Vancouver, March 25, 2013.
390. Eric S.G. Shaqfeh, Hong Zhao, Andrew Spann, Vivek Narsimhan “The Microhydrodynamics of Vesicles, Vesicle Suspensions and Blood”, Department Seminar, Department of Aeronautical and Mechanical Engineering, University of Notre Dame, South Bend, IN. April 23, 2013
391. Sourav Padhy, Sreenath Krishnan, Eric S.G. Shaqfeh (speaker), Gianluca Iaccarino, Jeffrey F. Morris, and N. Tonmukayakul, “Sedimenting Particulate Suspensions in Viscoelastic Fluids : Orthogonal Shear and Turbulent Drag Reduction”, Exxon Corporate Research, Clinton-Annandale, NJ, April 24, 2013
392. Eric S.G. Shaqfeh, “Dynamics of Flowing Polymer Solutions in Linear Flows: Microscopic Descriptions of Macroscopic Observables”, Exxon Corporate Research, Clinton-Annandale, NJ, April 24, 2013
393. Sreenath Krishnan, Eric S.G. Shaqfeh, Gianluca Iaccarino (speaker), “Towards an Immersed Boundary Method for Particle Sedimentation in Drilling Muds”, Joint EUROMECH / ERCOFTAC Colloquium 549 Immersed Boundary Methods: Current Status and Future Research Directions; Leiden, The Netherlands, 17-19 June 2013
394. Eric S.G. Shaqfeh, “Vesicles & Vesicle Suspensions in Flow”, Complex Fluids and Flows in Industry and Nature COFFIN II, In Honor of Bud Homys’s 70th Birthday (Invited Talks), Pacific Institute for Mathematical Sciences, University of British Columbia, Vancouver, CANADA July 24, 2013
395. Eric S.G. Shaqfeh, “Viscoelastic Fluid Suspension Problems in Fracking and Drilling”, AICHE Annual Meeting, In Honor of Gary Leal’s 70th Birthday (Invited Talks), Monday, November 4, 2013, San Francisco, CA, Hotel Hilton, Continental 6
396. Preyas Shah, Eric S.G. Shaqfeh, “Cancer Treatment Using Drug Delivery Nanoparticles”, AICHE Annual Meeting,, Session: Bionanotechnology for Gene and Drug Delivery III; Monday, November 4, 2013, San Francisco, CA, Hotel Hilton, Continental 3
397. Vivek Narsimhan, Andrew Spann, Eric S.G. Shaqfeh, “The Instability of a Single Vesicle Under Extensional Flow At Zero Reynolds Number”, AICHE Annual Meeting,, Session: Bio-Fluid Dynamics; Monday, November 4, 2013, San Francisco, CA, Hotel Hilton, Continental 7
398. Sean Fitzgibbon, Eric S.G. Shaqfeh, “*In Vitro* Measurement of Particle Margination in Whole Blood” , AICHE Annual Meeting,, Session: Bio-Fluid Dynamics; Monday, November 4, 2013, San Francisco, CA, Hotel Hilton, Continental 7
399. Jorge A. Bernate¹, Mengfei Yang¹, Hong Zhao², Sumedh R. Risbud³, Colin D. Paul³, Matthew Dallas³, Konstantinos Konstantopoulos³, German Drazer⁴ and Eric S.G. Shaqfeh⁵, (1)Chemical Engineering, Stanford University, Stanford, CA, (2)Mechanical Engineering, Stanford University, Stanford, CA, (3)Chemical and Biomolecular Engineering, Johns Hopkins University, Baltimore, MD, (4)Department of Mechanical and Aerospace Engineering, Rutgers University, Piscataway, NJ, (5)Chemical Engineering and Mechanical Engineering, Stanford University, Stanford, CA “Numerical Simulation Study of the Deterministic Vector Chromatography of Rigid and Flexible Particles Over Slanted Open Cavities”, AICHE Annual Meeting, Session: Microfluidic and Microscale Flows: Separations and Electrokinetics; Tuesday, November 5, 2013, San Francisco, CA, Hotel Hilton, Continental 6
400. Eric S.G. Shaqfeh, “Viscoelastic Fluid Suspension Problems in Fracking and Drilling”, Exxon Mobil Upstream Research Company, 3120 Buffalo Speedway, Houston, TX, October 30, 2013

401. Eric S.G. Shaqfeh, “Viscoelastic Fluid Suspension Problems in Fracking and Drilling”, Westhollow Research Center, Shell Oil Upstream Research, 3333 Texas Highway 6, Houston, TX, October 30, 2013
402. Eric S.G. Shaqfeh, “Vesicles and Vesicle Suspensions in Flow”, Department of Chemical Engineering, University of Houston, Cullen College of Engineering, Houston, TX. November 1, 2013
403. Eric S.G. Shaqfeh, “Vesicles and Vesicle Suspensions in Flow”, Department of Mechanical Engineering, University of Illinois at Urbana-Champaign, Urbana, IL., November 15, 2013
404. Andrew Spann, Vivek Narsimhan, Eric S.G. Shaqfeh, “Asymmetric Instability, Symmetric Instability, and Pearling of a Vesicle in Extensional Flow”, 66th Annual Meeting of the APS Division of Fluid Dynamics, Session A18: Biofluids: General I - Vesicle Modeling and Simulations; Sunday, November 24, 2013, Pittsburgh, Pennsylvania
405. Eleanor Lin, Jorge Bernate, Daniel A. Parada San Martin, Yuzo Makitani, Eric S.G. Shaqfeh, Gianluca Iaccarino, “Effect of morphological variability on particle deposition in idealized human airways”, 66th Annual Meeting of the APS Division of Fluid Dynamics, Session G16: Biofluids: Physiological V - Respiratory System Flows; Monday, November 25, 2013, Pittsburgh, Pennsylvania
406. Jorge Bernate, Eleanor Lin, Eric S.G. Shaqfeh, Gianluca Iaccarino, “Simulation of the flow field and particle deposition in a realistic geometry of the human airways”, 66th Annual Meeting of the APS Division of Fluid Dynamics, Session G16: Biofluids: Physiological V - Respiratory System Flows; Monday, November 25, 2013, Pittsburgh, Pennsylvania
407. Jorge Bernate, Mengfei Yang, Hong Zhao, Sumedh Risbud, Colin Paul, Matthew Dallas, Konstantinos Konstantopoulos, German Drazer, Eric S.G. Shaqfeh, “Towards 2D field-flow fractionation - Vector separation over slanted open cavities”, 66th Annual Meeting of the APS Division of Fluid Dynamics, Session H6: Microfluids: Fluidic Devices I; Monday, November 25, 2013, Pittsburgh, Pennsylvania
408. Eric S.G. Shaqfeh, “How the dynamics of vesicle and capsule suspensions may affect your bleeding time”, Department of Chemical Engineering, Brigham Young University, Provo, Utah, March 17, 2014
409. Eric S.G. Shaqfeh, “How the dynamics of vesicle and capsule suspensions may affect your bleeding time”, Department of Chemical Engineering, Biotechnology HPC Software Applications Institute, Frederick, MD, March 21, 2014
410. Eric S.G. Shaqfeh, “Particulate suspensions in viscoelastic fluids under shear and sedimentation with application to prop pants and drilling muds”, Exxon Corporate Strategic Research, Clinton-Annandale, NJ, March 18, 2014
411. Eric S.G. Shaqfeh, “Numerical simulation of particle deposition and adsorption in flow”, Exxon Corporate Strategic Research, Clinton-Annandale, NJ, March 19, 2014
412. Eric S.G. Shaqfeh, “How the dynamics of vesicle and capsule suspensions may affect your bleeding time”, Department of Chemical Engineering, Biomedical Diagnostics Institute, Dublin City University, Dublin, Ireland, April 17, 2014
413. Eric S.G. Shaqfeh, “Interpreting the Interfacial Stress Rheometer”, Institute of NonNewtonian Fluid Mechanics Annual Meeting, Lake Vyrnwy Hotel and Spa, Wales, UK, April 14, 2014
414. Eric S.G. Shaqfeh, “How the dynamics of vesicle and capsule suspensions may affect your bleeding time”, Department of Chemical Engineering, University of Washington, Seattle, WA, May 19, 2014
415. Eric S.G. Shaqfeh, “Viscoelastic Suspension Problems in Fracking and Drilling”, Conference on *Dynamics of Particles in Flows: Fundamentals and Applications*, Nordic Institute for Theoretical Physics (NORDITA), Albanova, Stockholm June 4, 2014
416. Eric S.G. Shaqfeh, “The Shear and Extensional Rheology of Vesicles and Capsules: Why Is This More than of Academic Interest?”, 6th Pacific Rim Conference on Rheology, Melbourne, Australia, Tam Sridhar Birthday Symposium, July 23, 2014, 11:45 am (Invited)
417. Eric S.G. Shaqfeh, “Engineering Polymeric Fracking Fluids and Drilling Muds via Computer Simulation”, ACS PMSE/CCS joint workshop on Polymer Science and Engineering, Paul Allen building Allen-101X (Auditorium), Stanford University, Stanford CA. August 14, 2014 (Invited)
418. Eric S.G. Shaqfeh (speaker), Sourav Padhy, Sreenath Krishnan, Gianluca Iaccarino, Jeffrey F. Morris and N. Tonmukayakul, “Viscoelastic Suspension Problems in Fracking and Drilling”, BIRS Workshop, Mathematical Modelling of Particles in Fluid Flow, Banff, Canada, August 19, 2014 (invited)
419. Eric S.G. Shaqfeh, “Simulation of platelet adsorption to a vWF functionalized surface for different hematocrits”, BD Biosciences, 2350 Qume Drive, San Jose, CA 95131-1807 August 28, 2014 (Invited)
420. Vivek Narsimhan (speaker), Andrew Spann, Eric S.G. Shaqfeh, “Shape transitions of vesicles in linear, hyperbolic flows: asymmetric dumbbells, pearling, and buckling”, Society of Engineering Science 51st Annual Technical Meeting, 1- 3 October 2014, Purdue University, West Lafayette, Indiana, USA

421. Eric S.G. Shaqfeh, “Viscoelastic Suspension Problems in Fracking and Drilling”, Department of Mechanical Engineering, UC Berkeley, Berkeley, CA, October 3, 2014
422. Eric S.G. Shaqfeh (speaker), Vivek Narsimhan, Andrew Spann, “Shape transitions of vesicles in extensional flows: dumbbells, pearling, and buckling”, Session: Biomaterials and Biological System, Annual Meeting of the Society of Rheology, Philadelphia, PA, October 8, 2014 (Wednesday) 10:00am Track 2.
423. Eric S.G. Shaqfeh (speaker) , Sean Fitzgibbon, Travis Walker, Gerry Fuller, “ Scaling analysis and mathematical theory of the interfacial stress rheometer”, Session: Emulsions, Foams and Interfacial Rheology, Annual Meeting of the Society of Rheology, Philadelphia, PA, October 8, 2014 (Wednesday) 1:30 pm Track 6.
424. Vivek Narsimhan, Andrew Spann, Eric S.G. Shaqfeh, “Pearling and Buckling of High Aspect Ratio Vesicles in Extensional Flows”, AICHE Annual Meeting, Bio-Fluid Dynamics Sessions, Monday, November 17, 2014: 1:15 PM M304 (Marriott Marquis Atlanta), Atlanta, GA
425. Andrew P. Spann, James Campbell, Sean Fitzgibbon, Armando Rodriguez and Eric S. G. Shaqfeh., “Effect of Red Blood Cell Hematocrit on Platelet Adhesion in a Microchannel: Simulations and Experiments”, AICHE Annual Meeting, Particulate and Multiphase Flows I: Soft and Granular Systems, Wednesday, November 19, 2014: 9:15 AM Marquis Ballroom A (Marriott Marquis Atlanta), Atlanta, GA
426. Sojwal Manoorkar, Omer Sedes, Sreenath Krishnan, Eric S. G. Shaqfeh and Jeffrey F. Morris, , “Laminar Flow of Suspensions through Bifurcating Channels”, AICHE Annual Meeting, Particulate and Multiphase Flows I: Soft and Granular Systems, Wednesday, November 19, 2014: 8:45 AM Marquis Ballroom A (Marriott Marquis Atlanta), Atlanta, GA
427. Eric S.G. Shaqfeh, Preyas Shah “Modeling Porous or Reactive Surfaces Under Strong Shear: Beyond Damkohler”, AICHE Annual Meeting, Particulate and Multiphase Flows I: Soft and Granular Systems, Wednesday, November 19, 2014: 8:30 AM Marquis Ballroom A (Marriott Marquis Atlanta), Atlanta, GA
428. Eric S.G. Shaqfeh, “Computer simulation of platelet adsorption for different hematocrits: Using SBES for microfluidics”, Becton-Dickinson Technologies, Research Park, Raleigh, NC, Friday, November 7, 2014, 9:30 am
429. Sreenath Krishnan, Eric S.G. Shaqfeh, Gianluca Iaccarino, “An Immersed Boundary Method for Particles Sedimenting in Viscoelastic Fluids”, 67th Annual APS-DFD Meeting Moscone Center, San Francisco, CA; November 23, 2014
430. Jorge Bernate, Eleanor Lin, Rebecca Fahrig, Carlos Milla, Gianluca Iaccarino, Eric S.G. Shaqfeh “Biasing left-right particle distribution via sideways bending of the upper body”, 67th Annual APS-DFD Meeting Moscone Center, San Francisco, CA; November 23, 2014
431. Eric S.G. Shaqfeh, “How the dynamics of vesicle and capsule suspensions may affect your bleeding time”, Department of Mechanical Engineering and Applied Mechanics, University of Pennsylvania, Philadelphia, PA, March 24, 2015
432. Eric S.G. Shaqfeh, “Computer Simulation of the Inhalation of Toxic Agents in the Lungs”, U.S. Army Edgewood Chemical Biological Center, Edgewood Area of Aberdeen Proving Ground, Edgewood, MD, March 26, 2015
433. Eric S.G. Shaqfeh, “Computer Simulation of the Inhalation of Toxic Agents in the Lungs”, US Army Research Laboratory 2800 Powder Mill Road, Adelphi, MD 20783, March 26, 2015
434. Eric S.G. Shaqfeh, “Computer Simulation of the Inhalation of Toxic Agents in the Lungs”, National Biodefense Analysis and Countermeasures Center, Department of Homeland Security, 8300 Research Plaza, Frederick, MD 21702, March 27, 2015
435. Eric S.G. Shaqfeh (speaker), Sreenath Krishnan, Mengfei Yang, “On the Rheology of a Dilute Suspension of Rigid, nonBrownian Spherical Particles in a Viscoelastic Fluid”, A Special Rheology Symposium In Honor of Roger Tanner On the Occasion of his 82nd Birthday, Vathy, Samos, Greece, June 29, 2015
436. Mengfei Yang (speaker), Sreenath Krishnan, Eric S.G. Shaqfeh, Gianluca Iaccarino, “Numerical Simulation Study of the Rheology of Suspensions of Rigid Spheres in a Viscoelastic Fluid Matrix Under Imposed Shear”, Tuesday, November 10, 2015, AICHE Annual Meeting, Complex Fluids II: Suspensions and Nanoparticle-Polymer Materials, Salt Palace Convention Center, Ballroom F, Salt Lake City, UT.
437. Andrew P. Spann(speaker), Joseph Barakat, Roger T. Bonnecaze, and Eric S. G. Shaqfeh, , “3D Dynamics of Red Blood Cells and Vesicles in Confined Passages, Constrictions, and Post Arrays”, Wednesday, November 11, 2015, AICHE Annual Meeting, Bio-Fluid Dynamics , Salt Palace Convention Center, 150A/B, Salt Lake City, UT.

438. Joseph Barakat (speaker) , Andrew P. Spann, and Eric S. G. Shaqfeh, “The Motion of a Tightly Fitting Vesicle in a Tube”, Tuesday, November 10, 2015, AIChE Annual Meeting, Particulate and Multiphase Flows I: Soft and Granular Systems , Salt Palace Convention Center, 150A/B, Salt Lake City, UT.
439. Eric S.G. Shaqfeh(speaker) , Preyas Shah, and Tiras Lin “Effective Mass Transfer Rates to Heterogeneous Porous or Reactive Interfaces Under Strong Shear ”, Tuesday, November 10, 2015, AIChE Annual Meeting, Interfacial and Non-Linear Flows II: Instabilities and Structure , Salt Palace Convention Center, 150A/B, Salt Lake City, UT.
440. Eric S.G. Shaqfeh (speaker), Mengfei Yang, Sreenath Krishnan, Gianluca Iaccarino, “Numerical Simulations of the Rheology of Suspensions of Rigid Spheres in a Viscoelastic Fluid Under Shear”, Computational Rheology, 87th Annual Society of Rheology Meeting, Baltimore, MD, October 14, 2015
441. Sreenath Krishnan (speaker) , Eric S. G. Shaqfeh, Gianluca Iaccarino, “Immersed boundary methods for particles in viscoelastic fluids”, NonNewtonian Fluid Mechanics, 87th Annual Society of Rheology Meeting, Baltimore, MD, October 12, 2015
442. Sreenath Krishnan (speaker), Eric S.G. Shaqfeh, Gianluca Iaccarino, “Immersed boundary methods for viscoelastic particulate flows”, 68th Annual Meeting of the APS Division of Fluid Dynamics Volume 60, Number 21; Boston, Massachusetts Session A40: CFD: Particulate Flows 8:00 AM; 9:31 AM, Sunday, November 22, 2015 (A40.00001)
443. Eric S.G. Shaqfeh, “Engineering Fracking Fluids with Computer Simulation”, 68th Annual Meeting of the APS Division of Fluid Dynamics Volume 60, Number 21; Boston, Massachusetts Session Session G37: Minisymposium: Hydraulic Fracturing 8:26AM - 8:52AM, Monday, November 23, 2015 (G37.00002)
444. Preyas Shah (speaker), Eric S.G. Shaqfeh, “Effective reaction rates for transport of particles to heterogeneous reactive (or porous) surfaces under shear”, 68th Annual Meeting of the APS Division of Fluid Dynamics Volume 60, Number 21; Boston, Massachusetts; Session G1: Porous Media Flows: Mixing, Transport and Reaction 9:31 AM - 9:44 AM, Monday, November 23, 2015 (G1.00008)
445. Qin M. Qi (speaker), Vivek Narsimhan, Eric S.G. Shaqfeh, “Coarse-grained theory to predict red blood cell migration in pressure-driven flow at zero Reynolds number”, 68th Annual Meeting of the APS Division of Fluid Dynamics Volume 60, Number 21; Boston, Massachusetts; Session R23: Biofluids: Red Blood Cell Dynamics and Clotting 12:50 PM - 3:26 PM, Tuesday, November 24, 2015(R23.00010)
446. Eric S.G. Shaqfeh, “Engineering Fracking Fluids with Computer Simulation”, Department Colloquium, School of Chemical and Biomolecular Engineering, Georgia Institute of Technology, North Ave NW, Atlanta, GA 30332, October 7, 2015
447. Eric S.G. Shaqfeh, “Engineering Fracking Fluids with Computer Simulation”, *Lectures at the Leading Edge Lecture Series*, Department of Chemical Engineering and Applied Chemistry, University of Toronto, Toronto, Ontario, Canada - M5S3E5, November 18, 2015
448. Eric S.G. Shaqfeh, “Understanding shear in particulate suspensions with elastic suspending fluids: Rheology and Sedimentation”, Fluids Group, Departments of Chemical and Mechanical Engineering, MIT, Cambridge, MA, November 19, 2015
449. Eric S. G. Shaqfeh(speaker) , Sreenath Krishnan, Mengfei Yang, “Understanding shear in particulate suspensions with elastic suspending fluids: Rheology and Sedimentation, ” IUTAM symposium on Multi-Phase Continuum Modeling of Particulate Flows, December 9th - 11th, 2015, University of Florida, Gainesville, Florida (Invited Presentation)
450. Eric S.G. Shaqfeh, “CFD for Particulate Biological Flows: Particle Margination in the Microcirculation and Inhalation of Aerosols in the Lungs”, Department of Physics, University of Gothenburg, Goteborg, Sweden, December 14, 2015
451. J.M. Barakat, A.P. Spann, E.S.G. Shaqfeh(speaker) , “The Bretherton problem for a vesicle and its relation to flow-induced poration”, Summer School for Active Complex Matter, Cargese, Corsica (France), July 20, 2016.
452. Qin M. Qi, E.S.G. Shaqfeh(speaker) , “Accelerating blood simulations: a coarse-grained theory to understand cellular suspensions”, Summer School for Active Complex Matter, Cargese, Corsica (France), July 20, 2016.
453. Qin M. Qi (speaker) , E.S.G. Shaqfeh , “Accelerating blood simulations: a coarse-grained theory to understand cellular suspensions”, 2016 SIAM Annual Meeting, Minisymposium on “High-fidelity modeling of cellular flows”, Boston, MA, July 14, 2016

454. J.M. Barakat (speaker) , A.P. Spann, E.S.G. Shaqfeh, “The motion of a closely fitting vesicle in a tube”, Fluids Topics - FM06 - Drops, Bubbles and Multiphase Flows, TS.FM06-1.03, 24th International Congress of Theoretical and Applied Mechanics, Palais des Congres, Montreal, Canada, August 21-26, 2016, paper#128324
455. M. Yang (speaker) , S. Krishnan, E.S.G. Shaqfeh, G.Iaccarino, “Rheology of suspended particles in viscoelastic fluids”, Fluids Topics - FM12 - Non-Newtonian and Complex Fluids, TS.FM12-2.03, 24th International Congress of Theoretical and Applied Mechanics, Palais des Congres, Montreal, Canada, August 21-26, 2016, paper#127800
456. Q.M.Qi (speaker) , E.S.G. Shaqfeh, “A coarse-grained theory to predict particle margination and migration in blood suspensions”, Fluids Topics - FM01 - Biological Fluid Mechanics, TS.FM01-1.06, 24th International Congress of Theoretical and Applied Mechanics, Palais des Congres, Montreal, Canada, August 21-26, 2016, paper# 130840
457. J.M. Barakat (speaker), J. M. Frostad, Mariana Rodriguez-Hakim, G.G. Fuller, E.S.G. Shaqfeh, “A Theory for Thin-Film Evolution Between a Sphere and a Planar Free Surface”, Interfacial and Non-Liner Flows: Drops and Emulsions, 2016 Annual AICHE Meeting, Nov. 16, 2016, San Francisco, CA
458. T. Geisler, S. Padhy, G. Iaccarino, E.S.G. Shaqfeh (speaker), “Simulating Airflow in Human and Nonhuman Primate Airways with Applications to Aerosolized Drug Delivery Animal Testing”, Bio-fluid Dynamics, 2016 Annual AICHE Meeting, Nov. 15, 2016, San Francisco, CA
459. S. Krishnan, W. Murch, E.S.G. Shaqfeh (speaker), G. Iaccarino “The Sedimentation of Particulate Suspensions Under Orthogonal Shear: Mechanisms at Finite Weissenberg Number”, Complex Fluids: Polymers and Macromolecules, 2016 Annual AICHE Meeting, Nov. 15, 2016, San Francisco, CA
460. E.S.G. Shaqfeh, “ Engineering frac'ing fluids via computer simulation”, Symposium D-2: Mechanics and Materials in the Oilfield, Society of Engineering Science, 53rd Annual Technical Meeting, University of Maryland, College Park, MD, Oct. 4, 2016 (invited)
461. M. Yang (speaker), S. Krishnan, E.S.G. Shaqfeh, “Numerical Study of the Shear Rheology of Suspensions in Viscoelastic Fluids at Low Volume Fraction”, Particulate and Multiphase Flows: Structure and Assembly, 2016 Annual AICHE Meeting, Nov. 15, 2016, San Francisco, CA
462. J.M. Barakat (speaker) , A.P. Spann, E.S.G. Shaqfeh, “The Bretherton Problem for a Vesicle”, 69th Annual Meeting of The APS Division of Fluid Dynamics, Session H26: Suspensions: Theory and Modeling, Oregon Convention Center , Portland, Oregon; Monday, November 21, 2016; H26.00005
463. M.Yang (speaker), S. Krishnan E.S.G. Shaqfeh, “3D Numerical Study of the Shear Rheology of a Semi-dilute Viscoelastic Suspension”, 69th Annual Meeting of The APS Division of Fluid Dynamics, Session L26: Suspensions: Rheology, Oregon Convention Center , Portland, Oregon; Monday, November 21, 2016; L26.00003
464. T. Geisler (speaker) , S. Padhy, E.S.G. Shaqfeh, G. Iaccarino, “LES of Laminar-to-Turbulent Particle-Fluid Dynamics in Human and Nonhuman Primate Airways: Applications to Aerosolized Drug Delivery Animal Testing”, 69th Annual Meeting of The APS Division of Fluid Dynamics, Session H20: Bio:Biofilms and General Bioflows, Oregon Convention Center , Portland, Oregon; Monday, November 21, 2016; H20.00006
465. W. Murch(speaker) , S. Krishnan, E.S.G. Shaqfeh, “The Sedimentation of Particles under Orthogonal Shear in Viscoelastic Fluids”, 69th Annual Meeting of The APS Division of Fluid Dynamics, Session L27: Non-Newtonian Flows: Applications, Oregon Convention Center , Portland, Oregon; Monday, November 21, 2016; L27.00003
466. T. Lin(speaker) , P. Shah, B.R. Smith, E.S.G. Shaqfeh, “Transport of Brownian spheroidal nanoparticles in near-wall vascular flows for cancer therapy”, 69th Annual Meeting of The APS Division of Fluid Dynamics, Session A20: Bio: Proteins and Cells, Oregon Convention Center , Portland, Oregon; Sunday, November 20, 2016; A20.00005
467. Qin Qi(speaker) , E.S.G. Shaqfeh, “Time evolution of shear-induced particle margination and migration in a cellular suspension”, 69th Annual Meeting of The APS Division of Fluid Dynamics, Session H26: Suspensions: Theory and Modeling, Oregon Convention Center , Portland, Oregon; Monday, November 21, 2016; H26.00006
468. E.S.G. Shaqfeh (speaker), S. Krishnan, M. Yang, W. Murch, G. Iaccarino, “Understanding Viscoelastic Suspensions via Numerical Simulation”, The Society of Rheology 88th Annual Meeting, Tampa, FL ; Thursday, February 16, 2017; Session: Non-Newtonian Fluid Mechanics & Instabilities; NF21
469. J.M. Barakat (speaker) , E.S.G. Shaqfeh, “Squeezing vesicles through narrow tubes”, The Society of Rheology 88th Annual Meeting, Tampa, FL ; Monday, February 13, 2017; Session: Biorheology & Active Fluids; BA10

470. Qin Qi(speaker) , E.S.G. Shaqfeh, “*In vitro* measurement and modeling of platelet binding activity”, BD Biosciences, 2350 Qume Drive, San Jose 9513, January 20, 2017.
471. W.L. Murch (speaker), S.Krishnan, E.S.G. Shaqfeh, G. Iaccarino, “Engineering complex fluids for hydraulic fracturing”, Natural Gas Initiative Research Review, Hartley Conference Center, Mitchell Earth Sciences Building, Stanford University, January, 24, 2017
472. E.S.G. Shaqfeh (speaker), S. Krishnan, M. Yang, W. Murch, C. Guido, G. Iaccarino, “Immersed Boundary Methods for Rigid and Deformable Particles in Viscoelastic Flows”, German Physical Society, Spring Meeting (Condensed Matter Physics), Special Symposium “Soft Particles in Flows”, Dresden, Germany, March 20, 2017 (Invited Leadoff Talk).
473. E.S.G. Shaqfeh (speaker), Qin Qi, “A Simple Model for Blood Flow in Microchannels/Vessels”, RCSI Molecular & Cellular Therapeutics (MCT), Royal College of Surgeons in Ireland, 123 St. Stephen’s Green, Dublin 2, Ireland, March 24, 2017 (Invited)
474. E.S.G. Shaqfeh (speaker), Joe Barakat, Maggie Qi, “Vesicles and Red Blood Cells in Channel and Tube Flows: Extra Pressure Drop and Migration”, NSF Workshop on “ Modeling Complex Fluids and Gels for Biological Applications”, University of Utah, May 5, 2017 (Invited Keynote)
475. E.S.G. Shaqfeh (speaker), S. Krishnan, M. Yang, W. Murch, C. Guido, G. Iaccarino, “Immersed Boundary Methods for Rigid and Deformable Particles in Viscoelastic Flows with Application to Advanced Manufacturing”, IUTAM/AMERIMECH Symposium on “Computational Mechanics for Advanced Manufacturing”, Sibley Auditorium, UC Berkeley, May 30, 2017 (Invited).
476. Joseph M. Barakat (speaker), X. Shi, E.S.G. Shaqfeh, E. Lizarraga-Garcia, A. Kar, “Modelling Film Drainage in the Presence of Marangoni Stresses”, 91st ACS Colloids and Surface Symposium, Session: Emulsion, Bubbles and Foams: Foams - I, City College of NewYork, NY, NY, July 11, 2017. (keynote)
477. E.S.G. Shaqfeh, “Lecture1: Polymer Solution Rheology at the Single Molecule Level”, Department of Chemical and Biomolecular Engineering, Zhejiang University, Hangzhou, China, June 4, 2017 (Invited).
478. E.S.G. Shaqfeh, “Lecture 2: The Einstein Viscosity with Fluid Elasticity”, Department of Chemical and Biomolecular Engineering, Zhejiang University, Hangzhou, China, June 5, 2017 (Invited).
479. J. M. Barakat, X. Shi, G. Fuller, E.S.G. Shaqfeh (speaker), “Thin-film evolution due to the upward motion of a sphere or bubble penetrating an initially planar free surface”, Beijing Welltrailing Research Center, Beijing, China, June 8, 2017 (Invited).
480. E.S.G. Shaqfeh (speaker), S. Krishnan, M. Yang, W. Murch, G. Iaccarino, “Understanding Viscoelastic Suspensions with Numerical Simulations”, 18th International Workshop on Numerical Methods in NonNewtonian Fluid Mechanics, University of British Columbia, Vancouver, CANADA, June 13, 2017. (Invited).
481. E.S.G. Shaqfeh (speaker), S. Krishnan, M. Yang, G. Iaccarino, “The importance of extensional flow in determining the shear rheology of viscoelastic suspensions”, 89th Annual Meeting of the Society of Rheology, Session: Suspensions, Colloids and Granular Systems, Denver, CO, October 9, 2017.
482. Amir Saadat (speaker), Tiras Lin, E.S.G. Shaqfeh, “Brownian dynamics of wall tethered polymers in shear flow”, 89th Annual Meeting of the Society of Rheology, Session: Polymer Solutions and Melts, Denver, CO, October 9, 2017.
483. Jonas Einarsson(speaker), M. Yang, E.S.G. Shaqfeh, “The Einstein viscosity with fluid elasticity”, 89th Annual Meeting of the Society of Rheology, Session: Non-Newtonian Fluid Mechanics, Denver, CO, October 10, 2017.
484. M. Yang (speaker) , E.S.G. Shaqfeh, “The Mechanism for Shear Thickening in Viscoelastic Suspensions”, 2017 Annual AIChE Meeting, Session: Complex Fluids: Self & Directed Assembly , Minneapolis, MN, November 1, 2017.
485. J.M. Barakat (speaker) , E.S.G. Shaqfeh, “The Steady Motion of a Train of Vesicles in a Cylindrical Channel of Arbitrary Cross Section”, 2017 Annual AIChE Meeting, Session: Microfluidic and Nanoscale Flows: Separations and Particulates, Minneapolis, MN, October 30, 2017.
486. Qin Qi (speaker) ,Irene K. Oglesby, Jonathan Cowman, Antonio J. Ricco, Dermot Kenny, E.S.G. Shaqfeh, “ In vitro Measurement and Modelling of Platelet Adhesion on Von-Willebrand-Factor-Coated Surfaces in Channel Flow”, 2017 Annual AIChE Meeting, Session: Hydrodynamics of Biological Systems , Minneapolis, MN, October 30, 2017.
487. Qin M. Qi (speaker), Irene Oglesby , Jonathan Cowman , Antonio J. Ricco , Dermot Kenny , Eric S.G. Shaqfeh, “In-vitro measurement and modelling of shear-induced platelet margination and adhesion in channel flows”, 70th Annual Meeting of the APS Division of Fluid Dynamics, Session A36: Suspensions: Fluid-Particle Interaction I, Denver, CO; Sunday, November 19, 2017; A36.00001

488. Jonas Einarsson (speaker) , Mengfei Yang , Eric S. G. Shaqfeh , “The Einstein viscosity with fluid elasticity”, 70th Annual Meeting of the APS Division of Fluid Dynamics, Session D36: Suspensions: Rheology, Denver, CO; Sunday, November 19, 2017; D36.00001
489. William L. Murch (speaker) , Sreenath Krishnan , Eric S. G. Shaqfeh , Gianluca Iaccarino , “Particle sedimentation in a sheared viscoelastic fluid”, 70th Annual Meeting of the APS Division of Fluid Dynamics, Session E36: Suspensions: Fluid-Particle Interaction II, Denver, CO; Sunday, November 19, 2017; E36.00005
490. Tiras Y. Lin (speaker) , Amir Saadat , Amit Kushwaha , Eric S.G. Shaqfeh, “Brownian dynamics of wall tethered polymers in shear flow”, 70th Annual Meeting of the APS Division of Fluid Dynamics, Session E38: Non-Newtonian Flows: Polymer Solutions, Denver, CO; Sunday, November 19, 2017; E38.00005
491. Joseph Barakat (speaker), Eric Shaqfeh , “The motion of a train of vesicles in channel flow”, 70th Annual Meeting of the APS Division of Fluid Dynamics, Session A4: Flows involving Vesicles and Micelles, Denver, CO; Sunday, November 19, 2017; A4.00001
492. Taylor Geisler(speaker) , Eric Shaqfeh , Gianluca Iaccarino , “Turbulence in the trachea and its effect on micro-particle deposition”, 70th Annual Meeting of the APS Division of Fluid Dynamics, Session L4: Respiratory: Mucociliary Flows and Respiratory Particle Deposition, Denver, CO; Monday, November 20, 2017;L4.00005
493. Christopher Guido (speaker) , Eric Shaqfeh , “Shear Rheology of a Suspension of Deformable Solids in Viscoelastic Fluid via Immersed Boundary Techniques”, 70th Annual Meeting of the APS Division of Fluid Dynamics, Session L37: Non-Newtonian Flows: Rheology & Mixing, Denver, CO; Monday, November 20, 2017; L37.00006
494. E.S.G. Shaqfeh (speaker), S. Krishnan, M. Yang, W. Murch, J. Binagia, G. Iaccarino, “Computing the Dynamics of Suspended Particles in Complex Fluids: From Fracking Fluids to Swimming Worms”, Complex Creeping Fluids: Numerical Methods and Theory, Casa Matematica Oaxaca (BIRS Workshop), Oaxaca, Oaxaca, Mexico (Invited).
495. E.S.G. Shaqfeh “Suspended Particles in Complex Fluids: From Fracking Fluids to Swimming Worms”, Department of Chemical and Biomolecular Engineering, U.C. Berkeley, Berkeley, CA, October 18, 2017(Invited).
496. E.S.G. Shaqfeh (speaker), S. Krishnan, M. Yang, W. Murch, G. Iaccarino, “Collective Effects in the Sedimentation of Particles in Viscoelastic Fluids Under Shear ”, Natural Gas Initiative, Industrial Affiliates Program, Tressider Memorial Union, Stanford University, Stanford, CA Nov. 8, 2017, (Invited).
497. E.S.G. Shaqfeh (speaker), T. Geisler, M. Majji, G. Iaccarino, “Inhalation/Exhalation at all generations of the human lung”, Army Research Laboratory, Aberdeen Proving Ground, Building 4600, Conference Room. 2019, Nov. 28, 2017.
498. E.S.G. Shaqfeh (speaker), S. Krishnan, W. Murch, C. Guido, A. Saadat, J. Binagia, G. Iaccarino, “A massively parallel immersed boundary solver for complex fluid suspensions”, Army Research Laboratory, Aberdeen Proving Ground, Building 4600, Conference Room. 2019, Nov. 28, 2017.
499. M. Rodriguez-Hakim, J. M. Barakat, E. S. G. Shaqfeh, G. G. Fuller, “Evaporation-driven soluto-capillarity and Van der Waals stabilization in thin liquid films”, Colloidal, Macromolecular and Polyelectrolyte Solutions, Gordon Research Conference, The Science and Application of Soft Materials in Hard(er) Environments, February 4 - 9, 2018, Four Points Sheraton / Holiday Inn Express, 1050 Schooner Drive, Ventura, CA, US (POSTER)
500. W. Murch (speaker), S. Krishnan, E.S.G. Shaqfeh, “Collective Effects in the Sedimentation of Particles in Viscoelastic Fluids Under Shear ”, 18th U.S. National Congress for Theoretical and Applied Mechanics, 212 Complex Fluids and Soft Matter’ session, Chicago, Illinois, June 4-9, 2018.
501. M. Majji (speaker), T. Geisler, E.S.G. Shaqfeh, Gianluca Iaccarino “Simulation of Unsteadiness in Air-Particle Flow in Human Lungs”, 18th U.S. National Congress for Theoretical and Applied Mechanics, Chicago, Illinois, June 4-9, 2018.
502. E.S.G. Shaqfeh (speaker), Will Murch, Chris Guido, Amir Saadat, Mengfei Yang, “Immersed Boundary Methods for Rigid and Deformable Particles in Viscoelastic Flows”, 13th World Congress on Computational Mechanics / 2nd Pan American Congress on Computational Mechanics, New York City, July 24, 2018 (Keynote)
503. E.S.G. Shaqfeh, “Suspended Particles in Complex Fluids: From Fracking Fluids to Swimming Worms”, Department of Chemical and Biomolecular Engineering, South Dakota School of Mines & Technology, Rapid City, SD (Invited) February 27, 2018.

504. E.S.G. Shaqfeh, “Suspended Particles in Complex Fluids: From Fracking Fluids to Swimming Worms”, 5th Annual EPIC Workshop, Department of Chemical Engineering, Louisiana State University, Baton Rouge, LA (Invited) April 27, 2018.
505. Eric S.G. Shaqfeh (speaker), Mengfei Yang, Jonas Einarsson, “The Shear Rheology of Rigid Particle Suspensions in Viscoelastic Fluids”, Zhejiang University - Stanford Symposium, May 15, 2018, Zhejiang University, Hangzhou, China
506. E.S.G. Shaqfeh (speaker), W. Murch, A. Zhang “The Sedimentation of Particle Suspensions in Viscoelastic Fluids with and without Applied Shear”, PRCR (Pacific Rim Conference on Rheology) 2018, Jeju Island, Korea, June 13, 2018. (Keynote)
507. J. Einarsson (speaker), E.S.G. Shaqfeh, “Brownian motion in a viscoelastic fluid”, Workshop on *Complex fluids in biological systems*, BIRS Banff, Alberta Canada, July 22-27, 2018
508. E.S.G. Shaqfeh (speaker), J. Einarsson, W. Murch, A. Zhang, “Consequences of the Mobility of Particles in Viscoelastic Shear Flow”, Paper 518f, The Society of Rheology 90th Annual Meeting, Session: Non-Newtonian Fluid Mechanics & Flow Instabilities, Houston, TX, October 16, 2018
509. C. Guido (speaker), J. Binagia, E.S.G. Shaqfeh, “Fully-resolved simulation of undulatory swimming of *C. elegans* in viscoelastic fluids via the immersed boundary technique”, The Society of Rheology 90th Annual Meeting, Session: Biological and Active Matters, Houston, TX, October 16, 2018
510. W. Murch (speaker), S. Krishnan, E.S.G. Shaqfeh, “Collective effects in the sedimentation of particles in viscoelastic fluids”, Paper 354f, 2018 AIChE National Meeting, Pittsburgh, PA, Oct. 30, 2018
511. M. Majji (speaker), T. Geisler, E.S.G. Shaqfeh, G. Iaccarino, J. Kasevan, “Large Eddy Simulations of Air-particle Dynamics in Rabbit Airways”, Paper 460f, 2018 AIChE National Meeting, Pittsburgh, PA, Oct. 31, 2018
512. E.S.G. Shaqfeh (speaker), M. Rodriguez-Hakim, J. Barakat, X. Shi, G. Fuller, “Evaporation-driven Solutocapillary Flow of Thin Liquid Films Over Curved Substrates”, 2018 AIChE National Meeting, Pittsburgh, PA, Oct. 31, 2018
513. A. Saadat (speaker), Q. Qi, E.S.G. Shaqfeh, “Understanding Red Blood Cell Migration in Small Arterioles”, Paper 460d, 2018 AIChE National Meeting, Pittsburgh, PA, Oct. 31, 2018
514. C. Guido (speaker), J. Binagia, E.S.G. Shaqfeh, “Simulation of *C. Elegans* Swimming in Viscoelastic Fluids via the Immersed Boundary Technique”, Paper 155g, 2018 AIChE National Meeting, Pittsburgh, PA, Oct. 29, 2018
515. E.S.G. Shaqfeh (speaker), A. Saadat, “Dynamic Computer Simulations of Flowing Blood in Microfluidic Devices: Towards Developing a Bioassay for ME/CFS RBCs”, Second Annual ME/CFS Working Group Meeting, Open Medicine Foundation, Sheraton Palo Alto Hotel, Palo Alto, CA, September, 27, 2018
516. E.S.G. Shaqfeh, “Suspended Particles in Complex Fluids: From Fracking Fluids to Swimming Worms”, Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, MA (Invited) October 19, 2018.
517. E.S.G. Shaqfeh, “Suspended Particles in Complex Fluids: From Fracking Fluids to Swimming Worms”, Department of Chemical and Biomolecular Engineering, Drexel University, Philadelphia, PA (Invited) October 26, 2018.
518. Xingyi Shi (speaker), G.G. Fuller, E.S.G. Shaqfeh, “Evaporation Driven Oscillatory Marangoni-Capillary Flow in Thin Films of a Binary Mixture”, 71st Annual Meeting of the APS Division of Fluid Dynamics, Atlanta, Georgia, Session L27: Surface Tension Effects: Interfacial Phenomena I, Monday, November 19, 2018
519. Mariana Rodriguez-Hakim (speaker), Joseph Barakat, E.S.G. Shaqfeh, G.G. Fuller, “Evaporation-driven solutocapillary flow of thin films over curved substrates”, 71st Annual Meeting of the APS Division of Fluid Dynamics, Atlanta, Georgia, Session L27: Surface Tension Effects: Interfacial Phenomena I, Monday, November 19, 2018
520. E.S.G. Shaqfeh (speaker) and J. Barakat, “The Microhydrodynamics of Vesicles in Tube and Channel Flow”, Seminar in Fluid Mechanics, Combustion and Engineering Physics, Department of Mechanical and Aerospace Engineering, UC San Diego, November 26, 2018
521. E.S.G. Shaqfeh, “Suspended Particles in Complex Fluids: From Fracking Fluids to Swimming Worms”, Department of Mathematics, Univ. of California at Davis, Davis, CA (Invited) February, 15, 2019.
522. J. Binagia (speaker), C. Guido, E.S.G. Shaqfeh, “Simulating the swimming motion of *C. elegans* and amoeboids in viscoelastic fluids via the immersed boundary method”, Minisymposium: Numerical Methods for Biological Fluid Dynamics - Part II of II, 2019 SIAM Conference on Computational Science and Engineering, Spokane, WA, March 1, 2019

523. E.S.G. Shaqfeh (speaker), A. Jain, M. Yang, J. Einarsson, N. Alvarez, Z. Hinton, “A Study of the Effective Extensional (and Shear) Viscosity in a Particle Laden Viscoelastic Solution”, The Lake Vyrnwy Spring Rheology Meeting 2019, Insitute of NonNewtonian Fluid Mechanics, Llanwddyn, Montgomeryshire, Mid Wales, April 16, 2019
524. A. Saha (speaker), B. Schmidt, A. Kumar, A. Saadat, V. Sija, V. Nguyen, J. Do, W. Ho, M. Nemat-Gorgani, E.S.G. Shaqfeh, A. Ramasubramanian, R. Davis, “Red Blood Cell Biomechanics In Chronic Fatigue Syndrome”, Summer Biomechanics, Bioengineering, and Biotransport Conference, SB3C2019, *Tissue and Cellular Engineering: Mechanobiology - a symposium in memory of Christopher R. Jacobs*, Seven Springs, PA , June 25-28, 2019.
525. E.S.G. Shaqfeh (speaker), A. Jain, M. Yang, J. Einarsson, N. Alvarez, Z. Hinton, “A Study of the Effective Extensional (and Shear) Viscosity in a Particle Laden Viscoelastic Solution”, 9th International Meeting of the Hellenic Society of Rheology, Honoring L. Gary Leal, Pythagoras, Samos, Greece, June 23-27, 2019
526. A. Jain (speaker), J. Einarsson, E.S.G. Shaqfeh, “On the Extensional Rheology of a Particle-Laden Viscoelastic Solution ”, 2019 AIChE National Meeting, Orlando, FL, Nov. 10-15, 2019
527. X. Shi (speaker), G.G. Fuller, E.S.G. Shaqfeh, “Evaporation Driven Oscillatory Marangoni Flow in Thin Films of a Binary Mixture”, 2019 AIChE National Meeting, Orlando, FL, Nov. 10-15, 2019
528. Qin M. Qi (speaker), E. Dunne, I. Schoen, A. J. Ricco, J. Donnell, D. Kenny and Eric S. G. Shaqfeh, “Blood Group Alters Platelet Binding Kinetics and Translocation Dynamics Under Arterial Shear”, 2019 AIChE National Meeting, Orlando, FL, Nov. 10-15, 2019
529. Christopher Guido, Boon Siong Neo and Eric S. G. Shaqfeh (speaker) , “The Rheology and Dynamics of Soft Particles in Viscoelastic Flows Via Immersed Boundary Techniques”, 2019 AIChE National Meeting, Orlando, FL, Nov. 10-15, 2019
530. E.S.G. Shaqfeh, Chris Guido, J. Binagia, “Micro-organism Locomotion in ‘Sticky’ Fluids”, Department of Chemical Engineering, Zheijang University, Hangzhou, China, March 24, 2019.
531. E.S.G. Shaqfeh, Anika Jain, Jonas Einarsson, Mengfei Yang, “The Effective Shear and Extensional Viscosity of Particle Laden Viscoelastic Fluids”, Stanford-ZJU Symposium, Hangzhou, China, March, 25, 2019.
532. A. Saadat (speaker) , Diego H. Villeneuve, Juan Santiago, Eric S. G. Shaqfeh, “Design of A Microfluidic Platform for High-Sensitivity Diagnosis of Blood Cell Disorders”, The Society of Rheology 91st Annual Meeting, Session: Biomaterials and Biofluid Dynamics, Raleigh, North Carolina, October 21, 2019
533. A. Saadat , Diego Oyarzun, Diego H. Villeneuve, Juan Santiago, Eric S. G. Shaqfeh (speaker) , “High-throughput screening of red blood cell (RBC) deformability for ME/CFS”, Third Annual ME/CFS Working Group Meeting, Sheraton Palo-Alto Hotel, Palo Alto, CA, September 5, 2019
534. J. Binagia (speaker) , A. Phoa, E.S.G. Shaqfeh, ”The effect of azimuthal swirl on swimming kinematics in elastic fluids”, Session A30: Biological Fluid Dynamics : Micro-Swimmer General I, A30.00003 , 72nd Annual Meeting of the APS Division of Fluid Dynamics, November 23-26, 2019, Seattle, WA
535. A. Saadat (speaker) , Diego Oyarzun, Diego H. Villeneuve, Ingrid H. Ovreeide, Juan Santiago, Eric S. G. Shaqfeh, ”A Microfluidic Platform for the Study of Cell Deformability”, Session A32: Biological Fluid Dynamics: Single Cells and Bacteria I, A32.00007, 72nd Annual Meeting of the APS Division of Fluid Dynamics, November 23-26, 2019, Seattle, WA
536. T. Lin (speaker) , E.S.G. Shaqfeh, ”Taylor dispersion in the presence of cross flow and interfacial mass transfer”, Session G35: Microscale Flows: General, G35.00001, 72nd Annual Meeting of the APS Division of Fluid Dynamics, November 23-26, 2019, Seattle, WA
537. X. Shi (speaker) , M. Hakim-Rodriguez, G.G. Fuller, E.S.G. Shaqfeh, ”The Dynamics of Curved Thin Films Under Solutocapillary Forces”, Session G08: Surface Tension II, G08.00007, 72nd Annual Meeting of the APS Division of Fluid Dynamics, November 23-26, 2019, Seattle, WA
538. E.S.G. Shaqfeh, “Immersed boundary methods for simulating suspensions in viscoelastic fluids”, Sanjiva Lele 60th Birthday Symposium, Monterey Plaza & Hotel, Monterey, CA September, 14, 2019
539. A. Saadat, D. A. Huyke, D. I. Oyarzun, P. V. Escobar, I. H. Ovreeide, E. S.G. Shaqfeh (speaker) and J. G. Santiago, “High Throughput Measurement of an Individual’s Red Blood Cell Shear Modulus Distribution”, ICTAM 2020+1, August 22-27, 2021, Milano, Italy (Keynote)

Ph.D. Students Supervised

1. Vivek Kumar Singh, Indian Institute of Technology, New Delhi (April, 1990— May, 1993) Thesis Title: “The role of surface transport of reaction precursors in plasma etching and deposition”; *Present Position: Director and Intel Fellow, Intel, Co.; vivek.singh@intel.com*

2. Yong Lak Joo, Seoul National University (April, 1990— April, 1993) Thesis Title: “A theoretical and experimental investigation of viscoelastic instabilities in Taylor-Dean flows” *Present Position: Professor, Department of Chemical and Biomolecular Engineering, Cornell University; ylj2@cornell.edu*
3. Anthony Richard Evans, University of Minnesota, (April, 1991—August, 1995) Thesis Title: “An experimental and theoretical investigation of polymer conformation during flow through a dilute fiber bed” *Present Position: Triton Research, Co.*
4. Michael Brian Mackaplow, University of California, Davis (April, 1991—October, 1995) Thesis Title: “A study of the transport properties and sedimentation characteristics of fiber suspensions” *Present Position: Associate Research Fellow, Abbot Labs; michael.b.mackaplow@abbvie.com*
5. Richard Louis Schiek, University of Illinois, (April, 1991—November, 1995) Thesis Title: “Nonlocal stress in bound, Brownian suspensions of slender rigid fibers” *Present Position: Research Scientist, Sandia National Labs; rlschie@sandia.gov*
6. Irene Michael Dris, The Cooper Union (April, 1992—November, 1996) Thesis Title: “Purely elastic instabilities in eccentric cylinder flows” *Present Position: Senior Director, Ethicon, Inc.; irenedris@earthlink.net*
7. Alisa Beth Mosler, M. I. T. (April, 1993—August, 1997) Thesis Title: “Microstructure conformation change in stochastic flow fields: Flow through fixed beds” *Present Position: Vice President of Analytics, Shaklee Co.; alisa@alum.mit.edu*
8. Patrick Seamus Doyle, Univ. of Pennsylvania, (April, 1993—May, 1997) Thesis Title: “Dynamic simulations of flexible polymer molecules: Rheology of unbound dilute solutions and polymer brushes” (Thesis won Liebermann award from Stanford for Highest Distinction in Graduate PhD work) *Present Position: Professor, Department of Chemical and Biological Engineering, MIT; pdoyle@mit.edu*
9. Anne Mary Grillet, Tulane University, (April, 1994—February, 1999) Thesis Title: “Viscoelastic instabilities in recirculation flows” *Present Position: Research Scientist, Sandia National Labs; amgrill@sandia.gov*
10. Joshua Aaron Levinson, M. I. T. (April, 1995—March, 1999) Thesis Title: “The ion-assisted etching and profile development of silicon in molecular and atomic chlorine” *Present Position: Applications Lab Manager at OEM Group Inc., Allentown, PA*
11. Thomas C. B. Kwan, California Inst. of Tech., (April, Kwan 1996—December, 2000) Thesis Title: “Brownian Dynamics simulations of flexible polymers in exponential shear flow and in the shear flow of brushes” *Present Position: Principal Scientist, Astute Medical, Inc., San Diego, CA ;kwanster@gmail.com*
12. Joseph Seok Hur, Seoul Nat'l. University, (April, 1997—July, 2001) Thesis Title: “The dynamics of DNA in the linear flows of dilute and semi-dilute solutions” (Post-Doctoral Student, July 2001 — December, 2001) *Present Position: Senior Manager, New Business Strategy Group, Samsung Electronics, Co.*
13. Alex Gweo-Kai Lee, Univ. of Texas at Austin, (April, 1997—September, 2001) Thesis Title: “Viscoelastic Effects on Free Surface Displacement Flows: A Computational and Experimental Study” *Present Position: Program Leader, Corporate Strategic Research, Exxon-Mobil Research & Engineering*
14. Prateek Dinesh Patel, Washington University at St. Louis, (April, 1998 —August, 2002) Thesis Title: “Drop Breakup and DNA Separations in Flow Through Porous Media” *Present Position: Supervisor, Exxon-Mobil Upstream Research Co.*
15. Jung ‘Nathan’ Woo, Univ. of California at Berkeley (BS in Chemical Engineering, BA in Mathematics), UC Davis (MS in Chemical Engineering and Mat. Sci.), (January, 1999—June, 2003) Thesis Title: “DNA chain dynamics and its application to microdevices and scission” *Present Position: Research Engineer, Intel, Co.*
16. Charles Martin Schroeder, Carnegie Mellon University, (May, 2000—October, 2004) Thesis Title: “Investigating polymer physics with single molecule experiment and Brownian dynamics simulation” (Thesis won Liebermann award from Stanford for Highest Distinction in Graduate PhD work) *Present Position: Professor, Univ. of Illinois at Urbana*
17. Rodrigo Esquivel Teixeira, Georgia Tech University, Thesis Title: “Single Molecule Studies of Flexible Polymers Under Shear and Mixed Flows” (May, 2000—March, 2005) *Present Position: Senior Manager - Data Science, Statistical Modeling Group, Roche, Santa Clara, CA*
18. Gandharv Bhatara, Indian Institute of Technology, New Delhi, Thesis Title: “A computational study of the effects of viscoelasticity on the interfacial dynamics of free surface displacement flows”, (May, 2000—October, 2004) *Present Position: Product Marketing Manager, Mentor Graphics, Portland, Or.*

19. John Steven Paschkewitz, M.I.T. Thesis Title: “Turbulent Drag Reduction using Rigid Microfibers” (April, 2001— November, 2004) *Present Position: Program Manager, Defense Sciences Office, DARPA*
20. Victor Alfred Beck, Northwestern, Thesis Title: “Polymer Dynamics in Nonlinear and Microfluidic Flows”, (April, 2002 — September, 2006) *Present Position: Research Engineer, Lawrence Livermore National Laboratories*
21. David Saintillan, Ecole Polytechnique, Thesis Title: “Collective Dynamics in Dispersions of Anisotropic and Deformable Particles”, (April, 2002 — August, 2006) (*Mechanical Engineering Student*) (*Thesis won Liebermann award from Stanford for Highest Distinction in Graduate PhD work. Thesis also won the Acrivos Dissertation Award from the APS-DFD.*) *Present Position: Professor, Univ. of California at San Diego*
22. Christopher Allen Leuth, Univ. of Minnesota, Thesis Title: Experimental and Numerical Studies of Tethered DNA Dynamics in Shear Flow, (April, 2004 — April, 2009) *Present Position: Research Engineer, Cd-Adapco*
23. Ajey Krishnamurthy Dambal, Washington University at St. Louis, Thesis Title: “Polymer Dynamics in Confined and Concentrated Media” (April, 2004 — December, 2008) *Present Position: Vice President, Goldman-Sachs, Co.*
24. Brendan David Hoffman, University of Maryland, Thesis Title: “Studies of NonEquilibrium Phase Transitions: Polymer Solutions and Fiber Suspensions” (December, 2004 — September, 2008) *Present Position: Quantitative Researcher in Commodity Futures, Campbell, Co, Baltimore, Md.*
25. Shikha Somani, IIT Bombay, Thesis Title: “Polymer dynamics in dilute media: a Brownian dynamics study” (April, 2006 — February, 2011) *Present Position: Principal Engineer, Global Foundries, Santa Clara, CA*
26. David Hastings Richter, University of Massachusetts, (January, 2007 – May, 2011) Thesis Title: “The Effect of Viscoelasticity on the Transitioning Cylinder Wake” (*Mechanical Engineering Student*) *Present Position: Assistant Professor, Department of Civil and Environmental Engineering, Univ. of Notre Dame*
27. Shenghan Yan, MIT, Thesis Title: “Collective Behavior of Colloidal Particles on the Fluid Interface” *Present Position: Project Leader, Boston Consulting Group, Beijing, China* (April, 2008 – August, 2012)
28. Andrew Spann, MIT, Thesis Title: “Loop Subdivision Surface Boundary Integral Simulations for Vesicles in Shear and Extensional Flows”, (March, 2008 – September, 2013) (*ICME Student*) *Present Position: Engineering Consultant, Veryst Engineering, Co., Needham Heights, MA*
29. Amit Kushwaha, Indian Institute of Technology (IIT), Guwahati, Thesis Title: “Computational Modeling of Tethered and Entangled Polymers” *Present Position: Research Engineer, Exxon-Mobil Upstream Research Co., Houston, TX* (June, 2008 – September, 2012) (*Mechanical Engineering Student*)
30. Sean Richard Fitzgibbon, Cornell University, Thesis Title: “Platelet Dynamics in Whole Blood and Interpreting the Interfacial Stress Rheometer”, (April, 2009 — July, 2014) (*Present Position: Research Engineer, AMGEN corporation*)
31. Sourav Padhy, Indian Institute of Technology (IIT), Kharagpur, Thesis Title: “Particles Sedimenting in Viscoelastic Drilling Muds” (October 2009, – April 2013) *Present Position: Research Engineer, Intel, Co, Portland, OR* (*Mechanical Engineering Student*)
32. Vivek Narsimhan, California Institute of Technology, Thesis Title, “Flow dynamics of fluid-filled particles with complex Interfaces: A theoretical and experimental description of surfactant-stabilized drops, red blood cells, and vesicles” *Present Position: Assistant Professor, School of Chemical Engineering, Purdue University* (April, 2010 – December, 2014) (*Thesis won Liebermann award from Stanford for Highest Distinction in Graduate PhD work.*)
33. Eleanor Yang Lin, MIT, Thesis Title: “Validation and Sensitivity Analysis of Particle Deposition in Human Airways”, (June, 2010 – August, 2014) (*ICME Student*) *Present Position: Data Scientist, Main Street Hub, Austin, TX*
34. Preyas Shah, Indian Institute of Technology (IIT), Bombay, Thesis Title: “Modeling of Diffusive Nanoparticle Transport to Porous Vasculature”, (June 2012 – March 2016) (*Mechanical Engineering Student*) *Present Position: Research Engineer, 10X Corporation, Pleasanton, CA*
35. Sreenath Krishnan, Indian Institute of Technology (IIT), Madras, Thesis Title: “Numerical simulation of viscoelastic particulate flows using the immersed boundary method”, (June 2012 – March 2017) (*Mechanical Engineering Student*) *Present Position: Research Engineer, 10X Corporation, Pleasanton, CA*

36. Mengfei Yang-Flint, M.I.T, Thesis Title: “The Role of Elasticity in Particle-Fluid Interactions and its Effect on Suspension Rheology”, (April, 2013 — February, 2018) *Present Position: Senior Imaging Scientist, Intel Corporation, Portland, OR*
37. Joseph Michael Barakat, Columbia University, Thesis Title: “Microhydrodynamics of Vesicles in Channel Flow”, (April, 2014 — May, 2018) *Present Position: Postdoctoral Student, University of California at Santa Barbara*
38. “Maggie” Qin Qi, Cornell University, Thesis Title: “Understanding particle migration, margination and adhesion in cellular suspensions”, (April, 2014 – May, 2018) *Present Position: Postdoctoral Student, Harvard University*
39. William Levi Murch, Ohio State University, Thesis Title: “The Effects of Fluid Elasticity and Flow on the Motion of Settling Particles”, (March, 2015 – September, 2019) *Present Position: Research Engineer, Synagile, Co*
40. Christopher John Guido , University of California at Davis, Thesis Title: “Numerical Methods for the study of deformable bodies in viscous and viscoelastic flows”, (March, 2015 – June, 2019)
41. Taylor Steven Geisler, University of Utah, Thesis Title: “Simulation of Turbulent Airflow and Particle Deposition in Human and Animal Airways”, (March 2015 – July, 2019) *Present Position: Consultant, Altman AI, Seattle, WA*
42. Tiras Y. Lin, Johns Hopkins University, Thesis Title: “Brownian Dynamics simulation of nanoparticles and polymers with applications in drug delivery”, (June, 2015 – January, 2020) (*Mechanical Engineering Student*) *Present Position: Research Engineer, Lawrence Livermore National Laboratories*
43. Anika Jain, Indian Institute of Technology (IIT), Kanpur, (March, 2017 – present)
44. Jeremy Binagia, University of Texas at Austin, (March, 2017 – present)
45. Xingyi Shi, M.I.T, (March, 2017 – present)
46. Anni Zhang, M.I.T, (March, 2018 — present)
47. Neo Boon Siong, University of Cambridge, Cambridge, UK (March, 2019 — present)
48. Zach Zajo, Indian Institute of Technology (IIT), Madras, (March, 2020 — present)

Post-Doctoral Students Supervised

1. Jason Edward Butler, Univ. of Texas at Austin (Ph.D.), (April, 1999—July, 2001) *Present Position: Professor, Department of Chemical Engineering, Univ. of Fla., Gainesville*
2. Costas Dimitropoulos, Univ. of Delaware (PhD) (August, 2003 — August, 2004) *Present Position: Senior Scientist, Philips Lumileds, Co.*
3. Mansoo Shin, Cornell University, (September, 2004 — September, 2006) *Present Position: Postdoctoral Researcher, Samsung*
4. Olaf Marxen (co-advised w/ Gianluca Iaccarino, Mechanical Engineering), (January, 2007 – May, 2011) *Present Position: Research Scientist, Von Karman Institute for Fluid Dynamics, Belgium*
5. Hong Zhao (Mechanical Engineering) , (January, 2009 – September, 2012) *Present Position: Research Engineer, Exxon-Mobil Upstream Research Co., Houston, TX*
6. Guihua Yu (co-advised with Zhenan Bao, Chemical Engineering), (April, 2009 – August, 2012) *Present Position: Professor, Materials Science, Univ. of Texas at Austin*
7. Bryan Smith (co-advised w/ Sam Gambhir, Department of Radiology, Medical School), (October, 2009 – August, 2015) *Present Position: Assistant Professor, Bioengineering, Ohio State University*
8. Laura Guglielmini (October, 2010 – August, 2012)
9. Jorge Bernate, (August, 2012 – December, 2014) *Present Position: Associate Director of Microfluidics, Inscripta, Co., Boulder, CO*
10. Andrew Spann, (October, 2013 – September, 2014) *Present Position: Engineering Consultant, Veryst Engineering, Co., Needham Heights, MA*
11. Sourav Padhy, (August, 2015 – October, 2016) *Present Position: Research Engineer, Intel, Co, Portland, OR*
12. Jonas Einarsson, (November, 2016 – December, 2018) *Present Position: Software Engineer, Google, Mountain View, CA*
13. Amir Saadat, (February, 2017 – March, 2020) *Present Position: Scientific Computing Engineer, Emerald Cloud Lab, San Francisco, CA & Visiting Scholar, Stanford University*
14. Madhu Majji, (September, 2017 – December, 2018) *Post-Doctoral Student, UC Santa Barbara, Department of Chemical Engineering*
15. Mehdi Niazi-Ardekani, (November, 2019 – present)

Present Funding Sources

1. National Science Foundation Division of Chemical and Thermal Sciences (NSF)
Grant#CBET-1803765
PI: Eric S.G. Shaqfeh
Title: The Rheology of Complex Suspensions In Viscoelastic Suspending Fluids
Dates: 07/15/2018 – 06/30/2021
Costs: Directs – \$224,674
Indirects – \$75,326
Total: \$300,000
2. National Science Foundation (NSF)
Extreme Science and Engineering Discovery Environment (XSEDE)
Title: Computational Design of Microfluidic Platforms Toward Improving Diagnosis and Treatment of Blood Cell Disorders
Grant # ACI-1548562
Dates: 04/01/2019 – 03/31/2020
Awarded Resources: SDSC Dell Cluster with Intel Haswell Processors (Comet): 2,355,253.0 SUs
SDSC Medium - term disk storage (Data Oasis): 1,500.0 GB
3. National Science Foundation Division of Chemical and Thermal Sciences (NSF)
Grant#CBET-1952635
PI: Eric S.G. Shaqfeh
Title: The Dynamics of Curved Fluid Films Between Complex Interfaces
Dates: 04/01/2020 — 03/31/2023
Costs: Directs – \$246,124
Indirects – \$98,860
Total: \$344,984
4. LAM Research
PI: Eric S.G. Shaqfeh
Title: Cleaning of SiO_2 Residue from High Aspect Ratio Features via *HF* Etching
Dates: 07/15/2018 – 10/01/2020
Costs:Directs – \$100,00 per year
5. Zhejiang Transfar Chemicals Group, Co.
Research Agreement # SPO 174915
PIs: Eric S.G. Shaqfeh, Gerry Fuller
Title: “Foaming Mechanisms in Transfar Fabric Treatment Processes”
Dates: 1/1/2020 – 12/31/2022
Total Costs: \$401,834
6. Beijing Welltrailing
PIs: G. G. Fuller, Eric S.G. Shaqfeh
Title: “A Combined Simulation and Experimental Program Investigating Water Purification”
Dates: 4/1/2017 – 3/31/2022
Direct Costs: approx. \$146,000/ year
Total Costs: \$200,000/ year
7. Home Open Medical Foundation ME/CFS Research
PI: Eric S.G. Shaqfeh
Title: “Computer Simulation of the Effect of Membrane Rigidity on the Micro-Flows of Red Blood Cells to Create a Diagnostic for Chronic Fatigue Syndrome”
Dates: 8/1/2018 – 6/30/2020
Total Costs: \$100,000/ year