Stanford



Beverley J McKeon

Professor of Mechanical Engineering

CONTACT INFORMATION

- **Administrative Contact**

  Susan Dorman - Administrative Associate, FPCE

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Bio

BIO

Beverley McKeon is Professor of Mechanical Engineering at Stanford University. Previously she was the Theodore von Karman Professor of Aeronautics at the Graduate Aerospace Laboratories at Caltech (GALCIT) and a former Deputy Chair of the Division of Engineering and Applied Science. She received M.A. and M.Eng. degrees from the University of Cambridge and a Ph.D. in Mechanical and Aerospace Engineering from Princeton University. Her research interests include interdisciplinary approaches to manipulation of boundary layer flows using morphing surfaces, fundamental experimental investigations of wall turbulence at high Reynolds number, the development of resolvent analysis for modeling turbulent flows, and assimilation of experimental data for efficient low-order flow modeling. McKeon was the recipient of a Vannevar Bush Faculty Fellowship from the DoD in 2017, a Presidential Early Career Award (PECASE) in 2009 and an NSF CAREER Award in 2008, and is a Fellow of the APS and AIAA. She currently serves as co-Lead Editor of Phys. Rev. Fluids and on the editorial board of the Annual Review of Fluid Mechanics, and is past Editor-in-Chief of Experimental Thermal and Fluid Science. She is the Past Chair of the US National Committee on Theoretical and Applied Mechanics and the APS representative.

ACADEMIC APPOINTMENTS

- Professor, Mechanical Engineering

ADMINISTRATIVE APPOINTMENTS

- Past Chair, US National Committee on Theoretical and Applied Mechanics (USNC/TAM), (2022-2024)
- Chair, US National Committee on Theoretical and Applied Mechanics (USNC/TAM), (2020-2022)
- Deputy Chair, Division of Engineering and Applied Science, Caltech, (2020-2022)
- Member, U.S. Delegation, International Union on Theoretical and Applied Mechanics, (2019- present)
- Vice Chair, US National Committee on Theoretical and Applied Mechanics (USNC/TAM), (2018-2020)
- Lead, Aerospace Mentoring Program (AMP), Caltech, (2016-2022)
- Member-At-Large, Executive Committee of the Division of Fluid Dynamics, American Physical Society, (2013-2015)
- Associate Director, Graduate Aerospace Laboratories, Caltech, (2012-2017)
- Member, Fluid Dynamics Technical Committee, American Institute of Aeronautics and Astronautics, (2008-2014)

HONORS AND AWARDS

- Fellow, American Institute of Aeronautics and Astronautics (2020)
- Northrop Grumman Prize for Excellence in Teaching, Caltech, E&AS Division (2018)
- Graduate Student Excellence in Mentoring Award, Caltech (2017)
- Vannevar Bush Faculty Fellow, U.S. Department of Defense (2017)
- Fellow, American Physical Society (2016)
- Fred Shair Program Diversity Award, Caltech (2016)
- Associate Fellow, American Institute of Aeronautics and Astronautics (2014)
- Presidential Early Career Award for Scientists and Engineers, (PECASE) (2009)
- NSF CAREER Award, National Science Foundation (2008)
- Dorothy Hodgkin Fellowship, Royal Society (2004-2006)
- Amelia Earhart Fellow, Zonta International (1999-2001)
- Fulbright Scholar, Fulbright Program (1997-1998)
- Guggenheim Fellow, Princeton University (1997-1998)
- Scholar, Corpus Christi College, Cambridge (1996)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Nominating Committee, American Physical Society (2023 - present)
- Lead Editor, Physical Review Fluids (2021 - present)
- Co-Chair (Physical Sciences), NAS Decadal Survey on Biological and Physical Sciences Research in Space, 2023-2032 (2021 - 2023)
- Chair, Visiting Committee, Dept. of Mechanical Engineering, Johns Hopkins University (2021 - 2021)
- Member, Diversity Working Group, International Union on Theoretical and Applied Mechanics (2021 - 2021)
- Member, International Visiting Committee, Dept. of Engineering, University of Cambridge (2020 - present)
- Member, Fluid Dynamics Prize Committee, American Physical Society (2020 - 2022)
- Member, Visiting Committee, Dept. of Aerospace and Mechanical Engineering, University of Notre Dame (2019 - 2019)
- Member, Executive Committee, Symposia on Turbulence and Shear Flow Phenomena (2018 - present)
- Associate Editor, Physical Review Fluids (2018 - 2020)
- Member, Division of Fluid Dynamics Fellowship COmmittee, American Physical Society (2018 - 2020)
- Member, Visiting Committee, School of Aeronautics and Astronautics, Purdue University (2018 - 2018)
- Member, Visiting Committee, Dept. of Aerospace Engineering, Texas A&M University (2018 - 2018)
- Member, Advisory Board, Annual Review of Fluid Mechanics (2016 - present)
- Member, Advisory Board, Physical Review Fluids (2016 - 2017)
- Member, Editorial Advisory Board, AIAA Journal (2015 - 2021)
- Editor-in-Chief, Experimental Thermal and Fluid Science (2015 - 2018)
- Member, External Affairs Committee (Chair 2015), American Physical Society (2014 - 2016)
- Member, Editorial Advisory Board, Physics of Fluids (2014 - 2015)
- Member, Editorial Advisory Board, Experiments in Fluids (2013 - 2021)
- Editor, Experimental Thermal and Fluids Science (2012 - 2015)
- Chair, Fluids Dynamics Award Committee, American Institute of Aeronautics and Astronautics (2011 - 2013)

- Member, Division of Fluid Dynamics Program Committee, American Physical Society (2008 - 2011)

PROFESSIONAL EDUCATION

- Ph.D., Princeton University , Mechanical and Aerospace Engineering (2003)
- M.A., Princeton University , Mechanical and Aerospace Engineering (1999)
- M.A., University of Cambridge , Engineering (1999)
- M. Eng., University of Cambridge , Fluid Mechanics, with Distinction (1995)
- B.A. (Hons), University of Cambridge , Engineering (1995)

LINKS

- Lab Site: http://mckeon.stanford.edu
- Center for Turbulence Research: https://ctr.stanford.edu/
- Flow Physics and Computational Engineering (FPCE): https://fpc.stanford.edu/

Teaching

COURSES

2026-27

- Experimental Methods in Fluid Mechanics: ME 354 (Spr)
- Intermediate Fluid Mechanics: ME 133 (Win)
- Mechanical Measurements: ME 149 (Aut)

2025-26

- Experimental Methods in Fluid Mechanics: ME 354 (Spr)
- Intermediate Fluid Mechanics: ME 133 (Win)
- Mechanical Measurements: ME 149 (Aut)
- Turbulence Physics and Modeling Using Numerical Simulation Data: ME 406 (Sum)

2024-25

- Advanced Fluid Mechanics - Flow Instabilities: ME 451B (Spr)
- Fluid Mechanics: ME 351A (Aut)
- Intermediate Fluid Mechanics: ME 133 (Win)
- Turbulence Physics and Modeling Using Numerical Simulation Data: ME 406 (Sum)

2023-24

- Advanced Fluid Mechanics - Low-Order Modeling for Turbulent Flow: ME 451C (Win)
- Experimental Methods in Fluid Mechanics: ME 354 (Spr)
- Fluid Mechanics: ME 351A (Aut)
- Seminar in Fluid Mechanics: ENGR 298 (Win)

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Maria Barros Alcalde, Thomas Jaroslawski, Sarah Smith

Doctoral Dissertation Advisor (AC)

Katherine Cao, Miya Coimbra, Oliver Khan, Jeffrey Leu

Master's Program Advisor

Ilana Cohen, Aliénor Destribois, Eyoel Getahun, Sam Levitt, Hellen Meng, Mathis Ratte

Doctoral (Program)

Chloe Choi, Ela Lucas, Aaron Maschhoff

Publications

PUBLICATIONS

- **Spatiotemporal Architecture of Energy Transfer in Wall-Bounded Turbulence** *PHYSICAL REVIEW LETTERS*
  Coimbra, M. C. Y., McKeon, B. J.
  2026; 137 (19)
- **Semantic kinematic analysis from groups of tracked objects** *PHYSICA D-NONLINEAR PHENOMENA*
  Harms, T. D., Brunton, S. L., McKeon, B. J.
  2026; 496
- **Spatiotemporal characterization of nonlinear forcing and response in turbulent channel flow** *JOURNAL OF FLUID MECHANICS*
  Huang, Y., Toedtli, S. S., Chini, G. P., McKeon, B. J.
  2026; 1035
- **Two-component inner-outer scaling model for the wall-pressure spectrum at high Reynolds number** *JOURNAL OF FLUID MECHANICS*
  Massey, J. M. O., Smits, A. J., McKeon, B. J.
  2026; 1034
- **Populating the wall layer, one eddy at a time: Resolvent analysis for Wall-Modelled LES** *INTERNATIONAL JOURNAL OF HEAT AND FLUID FLOW*
  Hantsis, Z., Chan, M. J., Hoang, N., McKeon, B. J., Piomelli, U.
  2026; 117
- **Instabilities in the flow over a spinning disk at angle of attack** *JOURNAL OF FLUID MECHANICS*
  Lee, M., Colonius, T., Mckeon, B. J.
  2025; 1025
- **Coupled dynamics of wall pressure and transpiration, with implications for the modelling of tailored surfaces and turbulent drag reduction** *JOURNAL OF FLUID MECHANICS*
  Toedtli, S., Leonard, A., McKeon, B.
  2025; 1019
- **Predicting turbulence structure in street-canyon flows using deep generative modeling** *INTERNATIONAL JOURNAL OF HEAT AND FLUID FLOW*
  Jaroslawski, T., Patil, A., Mckeon, B. J.
  2025; 115
- **Stokesian settling from quiescence: Experiments and theory on history effects and unsteady flow structures** *PHYSICAL REVIEW FLUIDS*
  Jaroslawski, T., Jaganathan, D., Govindarajan, R., McKeon, B. J.
  2025; 10 (6)
- **A resolvent-based perspective on the generation of Mach wave radiation from compressible boundary layers** *JOURNAL OF FLUID MECHANICS*
  Madhusudanan, A., Stroot, G., Mckeon, B. J.
  2025; 1003
- **Linear analysis characterizes pressure gradient history effects in turbulent boundary layers** *JOURNAL OF FLUID MECHANICS*
  Gomez, S. R., Mckeon, B. J.
  2025; 1002

- **Modeling freestream noise radiation from hypersonic tunnel wall turbulent boundary layers**
  Stroot, G., Roy, D., Madhusudanan, A., Duan, L., McKeon, B. J., AIAA
  AMER INST AERONAUTICS & ASTRONAUTICS.2025
- **Spectral location for the universal scaling regime in Martian atmospheric turbulence.** *Communications earth & environment*
  Coimbra, M. C., de la Torre Juárez, M., McKeon, B. J., Marín, M., Murdoch, N., Navarro, S., Rodríguez-Manfredi, J. A., Stott, A.
  2024; 5 (1): 597
- **Lagrangian gradient regression for the detection of coherent structures from sparse trajectory data.** *Royal Society open science*
  Harms, T. D., Brunton, S. L., McKeon, B. J.
  2024; 11 (10): 240586
- **On the physical structure, modelling and computation-based prediction of two-dimensional, smooth-wall turbulent boundary layers subjected to streamwise pressure gradients** *JOURNAL OF TURBULENCE*
  Joseph, K., Richard, S., Tobias, K., William, D., Daniel, F., Vidya, V., Ralph, V., Serge, T., Beverley, M., Luis, E.
  2024; 25 (10-11): 345-368
- **Challenges and perspective on the modelling of high-Re, incompressible, non-equilibrium, rough-wall boundary layers** *JOURNAL OF TURBULENCE*
  Garcia-Mayoral, R., Chung, D., Durbin, P., Hutchins, N., Knopp, T., McKeon, B. J., Piomelli, U., Sandberg, R. D.
  2024
- **Effects of roughness on non-equilibrium turbulent boundary layers** *JOURNAL OF TURBULENCE*
  Volino, R. J., Fritsch, D., Devenport, W. J., Eca, L., Garcia-Mayoral, R., Mckeon, B., Piomelli, U., Chung, D., Vishwanathan, V., Kerkvliet, M., Toxopeus, S., Hutchins, N.
  2024
- **A resolvent analysis of the effect of passive perforated surfaces on wall-bounded turbulence** *INTERNATIONAL JOURNAL OF HEAT AND FLUID FLOW*
  Jafari, A., Mckeon, B. J., Cazzolato, B. C., Arjomandi, M.
  2024; 106
- **Linear Amplification of Large Scale Structures in Adverse Pressure Gradient Turbulent Boundary Layers Through Resolvent Analysis**
  Gomez, S. R., McKeon, B. J.
  edited by Orlu, R., Talamelli, A., Peinke, J., Oberlack, M.
  SPRINGER INTERNATIONAL PUBLISHING AG.2024: 27-33
- **REDUCED ORDER MODELING OF FLOW OVER SPANWISE PERIODIC ROUGH SURFACES**
  Huang, Y., Hutchins, N., McKeon, B., ASME
  AMER SOC MECHANICAL ENGINEERS.2024
- **Interpolatory input and output projections for flow control** *JOURNAL OF FLUID MECHANICS*
  Herrmann, B., Baddoo, P. J., Dawson, S. T. M., Semaan, R., Brunton, S. L., McKeon, B. J.
  2023; 971
- **The transformative potential of machine learning for experiments in fluid mechanics** *NATURE REVIEWS PHYSICS*
  Vinuesa, R., Brunton, S. L., McKeon, B. J.
  2023
- **Towards real-time reconstruction of velocity fluctuations in turbulent channel flow** *PHYSICAL REVIEW FLUIDS*
  Arun, R., Bae, H., McKeon, B. J.
  2023; 8 (6)
- **Physics-informed dynamic mode decomposition** *PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES*
  Baddoo, P. J. J., Herrmann, B., McKeon, B. J., Kutz, J., Brunton, S. L. L.
  2023; 479 (2271)
- **Frequency-tuned surfaces for passive control of wall-bounded turbulent flow - a resolvent analysis study** *JOURNAL OF FLUID MECHANICS*
  Jafari, A., McKeon, B. J., Arjomandi, M.

2023; 959

- **Spatiotemporal characteristics of uniform momentum zones: Experiments and modeling** *PHYSICAL REVIEW FLUIDS*
  Laskari, A., de Silva, C. M., Hutchins, N., McKeon, B. J.
  2022; 7 (10)
- **Kernel learning for robust dynamic mode decomposition: linear and nonlinear disambiguation optimization.** *Proceedings. Mathematical, physical, and engineering sciences*
  Baddoo, P. J., Herrmann, B., McKeon, B. J., Brunton, S. L.
  2022; 478 (2260): 20210830
- **Variational formulation of resolvent analysis** *PHYSICAL REVIEW FLUIDS*
  Barthel, B., Gomez, S., McKeon, B. J.
  2022; 7 (1)
- **Amplitude and wall-normal distance variation of small scales in turbulent boundary layers** *PHYSICAL REVIEW FLUIDS*
  Saxton-Fox, T., Lozano-Duran, A., McKeon, B. J.
  2022; 7 (1)
- **Editorial: The 2021 Francois Naftali Frenkiel Award for Fluid Mechanics** *PHYSICAL REVIEW FLUIDS*
  Lauga, E., McKeon, B.
  2022; 7 (1)
- **Stochastic forcing to a linearized Navier-Stokes based model for laminar compressible boundary layers**
  Madhusudanan, A., McKeon, B. J., AIAA
  AMER INST AERONAUTICS & ASTRONAUTICS.2022
- **Modeling of high-Re, incompressible, non-equilibrium, rough-wall boundary layers for naval applications under NATO-AVT349**
  Garcia-Mayoral, R., Durbin, P., McKeon, B., Piomelli, U., Sandberg, R. D., Chung, D., Hutchins, N., Bensow, R. E., Knopp, T., Krumbein, A., Roy, C. J., Gargiulo, A., Lowettt, et al
  AMER INST AERONAUTICS & ASTRONAUTICS.2022
- **Editorial: Five Years of Physical Review Fluids** *PHYSICAL REVIEW FLUIDS*
  Lauga, E., McKeon, B., Rubin, B., Boffetta, G., Brenner, M., Cottin-Bizonne, C., Danaila, L., Hadjiconstantinou, N., He, G., Koumoutsakos, P., Lele, S., Meiburg, E., Quere, et al
  2021; 6 (12)
- **Tollmien-Schlichting route to elastoinertial turbulence in channel flow** *PHYSICAL REVIEW FLUIDS*
  Shekar, A., McMullen, R. M., McKeon, B. J., Graham, M. D.
  2021; 6 (9)
- **Resolvent analysis of stratification effects on wall-bounded shear flows** *PHYSICAL REVIEW FLUIDS*
  Ahmed, M. A., Bae, H. J., Thompson, A. F., McKeon, B. J.
  2021; 6 (8)
- **Closing the loop: nonlinear Taylor vortex flow through the lens of resolvent analysis** *JOURNAL OF FLUID MECHANICS*
  Barthel, B., Zhu, X., McKeon, B.
  2021; 924
- **Unsteady dynamics in the streamwise-oscillating cylinder wake for forcing frequencies below lock-on** *PHYSICAL REVIEW FLUIDS*
  Shamai, M., Dawson, S. T. M., Mezic, I., McKeon, B. J.
  2021; 6 (7)
- **Data-driven resolvent analysis** *JOURNAL OF FLUID MECHANICS*
  Herrmann, B., Baddoo, P. J., Semaan, R., Brunton, S. L., McKeon, B. J.
  2021; 918
- **Experiments and Modeling of a Compliant Wall Response to a Turbulent Boundary Layer with Dynamic Roughness Forcing** *FLUIDS*
  Huynh, D. P., Huang, Y., McKeon, B. J.
  2021; 6 (5)

- **Editorial: On Transition (in Physical Review Fluids leadership)** *PHYSICAL REVIEW FLUIDS*
  McKeon, B., Lauga, E.
  2021; 6 (4)
- **Nonlinear mechanism of the self-sustaining process in the buffer and logarithmic layer of wall-bounded flows** *JOURNAL OF FLUID MECHANICS*
  Bae, H., Lozano-Duran, A., McKeon, B. J.
  2021; 914
- **Interactions between scales in wall turbulence: phase relationships, amplitude modulation and the importance of critical layers** *JOURNAL OF FLUID MECHANICS*
  Jacobi, I., Chung, D., Duvvuri, S., McKeon, B. J.
  2021; 914
- **Temporal characteristics of the probability density function of velocity in wall-bounded turbulent flows** *JOURNAL OF FLUID MECHANICS*
  Laskari, A., McKeon, B. J.
  2021; 913
- **Control of instability by injection rate oscillations in a radial Hele-Shaw cell** *PHYSICAL REVIEW FLUIDS*
  Arun, R., Dawson, S. T. M., Schmid, P. J., Laskari, A., McKeon, B. J.
  2020; 5 (12)
- **A basis for flow modelling** *JOURNAL OF FLUID MECHANICS*
  McKeon, B. J.
  2020; 904
- **Modal Analysis of Fluid Flows: An Overview (Oct, 10.2514/1.J056060, 2017)** *AIAA JOURNAL*
  Taira, K., Brunton, S. L., Dawson, S. T. M., Rowley, C. W., Colonius, T., McKeon, B. J., Schmidt, O. T., Gordeyev, S., Theofilis, V., Ukeiley, L. S.
  2020; 58 (11): AU9
- **Prediction of resolvent mode shapes in supersonic turbulent boundary layers** *INTERNATIONAL JOURNAL OF HEAT AND FLUID FLOW*
  Dawson, S. T. M., McKeon, B. J.
  2020; 85
- **On the origin of drag increase in varying-phase opposition control** *INTERNATIONAL JOURNAL OF HEAT AND FLUID FLOW*
  Toedtli, S., Yu, C., McKeon, B.
  2020; 85
- **Self-sustained elastoinertial Tollmien-Schlichting waves** *JOURNAL OF FLUID MECHANICS*
  Shekar, A., McMullen, R. M., McKeon, B. J., Graham, M. D.
  2020; 897
- **Interaction of forced Orr-Sommerfeld and Squire modes in a low-order representation of turbulent channel flow** *PHYSICAL REVIEW FLUIDS*
  McMullen, R. M., Rosenberg, K., McKeon, B. J.
  2020; 5 (8)
- **Measurements of a turbulent boundary layer-compliant surface system in response to targeted, dynamic roughness forcing** *EXPERIMENTS IN FLUIDS*
  Huynh, D., McKeon, B.
  2020; 61 (4)
- **Characterization of the Spatio-Temporal Response of a Turbulent Boundary Layer to Dynamic Roughness** *FLOW TURBULENCE AND COMBUSTION*
  Huynh, D., McKeon, B.
  2020; 104 (2-3): 293-316
- **Spatial organisation of velocity structures for large passive scalar gradients** *JOURNAL OF FLUID MECHANICS*
  Laskari, A., Saxton-Fox, T., McKeon, B. J.
  2020; 885

- **Mean and Unsteady Flow Reconstruction Using Data-Assimilation and Resolvent Analysis** *AIAA JOURNAL*
  Symon, S., Sipp, D., Schmid, P. J., McKeon, B. J.
  2020; 58 (2): 575-588
- **Resolvent-based study of compressibility effects on supersonic turbulent boundary layers** *JOURNAL OF FLUID MECHANICS*
  Bae, H., Dawson, S. T. M., McKeon, B. J.
  2020; 883
- **A tale of two airfoils: resolvent-based modelling of an oscillator versus an amplifier from an experimental mean** *JOURNAL OF FLUID MECHANICS*
  Symon, S., Sipp, D., McKeon, B. J.
  2019; 881: 51-83
- **On the shape of resolvent modes in wall-bounded turbulence** *JOURNAL OF FLUID MECHANICS*
  Dawson, S. T. M., McKeon, B. J.
  2019; 877: 682-716
- **Turbulence Amplitude Amplification in an Externally Forced, Subsonic Turbulent Boundary Layer**
  Ranade, P., Duvvuri, S., McKeon, B., Gordeyev, S., Christensen, K., Jumper, E. J.
  AMER INST AERONAUTICS ASTRONAUTICS.2019: 3838-3850
- **Self-similar hierarchies and attached eddies** *PHYSICAL REVIEW FLUIDS*
  McKeon, B. J.
  2019; 4 (8)
- **Computing exact coherent states in channels starting from the laminar profile: A resolvent-based approach.** *Physical review. E*
  Rosenberg, K., McKeon, B. J.
  2019; 100 (2-1): 021101
- **Predicting the response of turbulent channel flow to varying-phase opposition control: Resolvent analysis as a tool for flow control design** *PHYSICAL REVIEW FLUIDS*
  Toedtli, S. S., Luhar, M., McKeon, B. J.
  2019; 4 (7)
- **Effect of Coherent Structures on Aero-Optic Distortion in a Turbulent Boundary Layer** *AIAA JOURNAL*
  Saxton-Fox, T., McKeon, B. J., Gordeyev, S.
  2019; 57 (7): 2828-2839
- **Role of parasitic modes in nonlinear closure via the resolvent feedback loop** *PHYSICAL REVIEW FLUIDS*
  Rosenberg, K., Symon, S., McKeon, B. J.
  2019; 4 (5)
- **Critical-Layer Structures and Mechanisms in Elastoinertial Turbulence.** *Physical review letters*
  Shekar, A., McMullen, R. M., Wang, S. N., McKeon, B. J., Graham, M. D.
  2019; 122 (12): 124503
- **Vortical Gusts: Experimental Generation and Interaction with Wing**
  Hufstedler, E. A. L., McKeon, B. J.
  AMER INST AERONAUTICS ASTRONAUTICS.2019: 921-931
- **Efficient representation of exact coherent states of the Navier-Stokes equations using resolvent analysis**
  Rosenberg, K., McKeon, B. J.
  IOP PUBLISHING LTD.2019
- **Studying the Effects of Compressibility in Planar Couette Flow using Resolvent Analysis**
  Dawson, S. T. M., McKeon, B. J., AIAA
  AMER INST AERONAUTICS & ASTRONAUTICS.2019
- **Relation between a singly-periodic roughness geometry and spatio-temporal turbulence characteristics**
  Morgan, J., McKeon, B. J.

ELSEVIER SCIENCE INC.2018: 322-333

- **Dynamic Roughness for Manipulation and Control of Turbulent Boundary Layers: An Overview** *AIAA JOURNAL*
  McKeon, B. J., Jacobi, I., Duvvuri, S.
  2018; 56 (6): 2178-2193
- **Non-normality and classification of amplification mechanisms in stability and resolvent analysis** *PHYSICAL REVIEW FLUIDS*
  Symon, S., Rosenberg, K., Dawson, S. T. M., McKeon, B. J.
  2018; 3 (5)
- **Modal Analysis of Fluid Flows: An Overview** *AIAA JOURNAL*
  Taira, K., Brunton, S. L., Dawson, S. T. M., Rowley, C. W., Colonius, T., McKeon, B. J., Schmidt, O. T., Gordeyev, S., Theofilis, V., Ukeiley, L. S.
  2017; 55 (12): 4013-4041
- **Coherent structures, uniform momentum zones and the streamwise energy spectrum in wall-bounded turbulent flows** *JOURNAL OF FLUID MECHANICS*
  Saxton-Fox, T., McKeon, B. J.
  2017; 826
- **Data assimilation of mean velocity from 2D PIV measurements of flow over an idealized airfoil** *EXPERIMENTS IN FLUIDS*
  Symon, S., Dovetta, N., McKeon, B. J., Sipp, D., Schmid, P. J.
  2017; 58 (5)
- **The engine behind (wall) turbulence : perspectives on scale interactions** *JOURNAL OF FLUID MECHANICS*
  McKeon, B. J.
  2017; 817
- **Scaling and interaction of self-similar modes in models of high Reynolds number wall turbulence** *PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES*
  Sharma, A. S., Moarref, R., McKeon, B. J.
  2017; 375 (2089)
- **Phase relations in a forced turbulent boundary layer: implications for modelling of high Reynolds number wall turbulence.** *Philosophical transactions. Series A, Mathematical, physical, and engineering sciences*
  Duvvuri, S., McKeon, B.
  2017; 375 (2089)
- **Phase-relationships between scales in the perturbed turbulent boundary layer** *JOURNAL OF TURBULENCE*
  Jacobi, I., McKeon, B. J.
  2017; 18 (12): 1120-1143
- **Analysis of Flow Timescales on a Periodically Pitching/Surging Airfoil** *AIAA JOURNAL*
  Dunne, R., Schmid, P. J., McKeon, B. J.
  2016; 54 (11): 3421-3433
- **Correspondence between Koopman mode decomposition, resolvent mode decomposition, and invariant solutions of the Navier-Stokes equations** *PHYSICAL REVIEW FLUIDS*
  Sharma, A. S., Mezic, I., McKeon, B. J.
  2016; 1 (3)
- **A reduced-order model of three-dimensional unsteady flow in a cavity based on the resolvent operator** *JOURNAL OF FLUID MECHANICS*
  Gomez, F., Blackburn, H. M., Rudman, M., Sharma, A. S., McKeon, B. J.
  2016; 798
- **Streamwise-varying steady transpiration control in turbulent pipe flow** *JOURNAL OF FLUID MECHANICS*
  Gomez, F., Blackburn, H. M., Rudman, M., Sharma, A. S., McKeon, B. J.
  2016; 796
- **Low-dimensional representations of exact coherent states of the Navier-Stokes equations from the resolvent model of wall turbulence.** *Physical review. E*
  Sharma, A. S., Moarref, R., McKeon, B. J., Park, J. S., Graham, M. D., Willis, A. P.

2016; 93 (2): 021102

- **On the design of optimal compliant walls for turbulence control** *JOURNAL OF TURBULENCE*
  Luhar, M., Sharma, A. S., McKeon, B. J.
  2016; 17 (8): 787-806
- **Leading Edge Vortex Development on Pitching and Surging Airfoils: A Study of Vertical Axis Wind Turbines**
  Dunne, R., Tsai, H., Colonius, T., McKeon, B. J.
  edited by Segalini, A.
  SPRINGER INT PUBLISHING AG.2016: 581-587
- **On the Coupling of Direct Numerical Simulation and Resolvent Analysis**
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