

JEFFREY RUSSELL KOSEFF

Department of Civil and Environmental Engineering
Yang and Yamazaki Environment and Energy Building
Via Ortega, Room 185
Stanford University
Stanford, CA 94305-4020
INTERNET: koseff@stanford.edu

Education

- 1979-1983 Stanford University, Stanford, California.
Ph.D. Civil Engineering, Water Resources Engineering
Minor in Mechanical Engineering
- 1977-1978 Stanford University, Stanford, California.
M.S. Civil Engineering, Water Resources Engineering
- 1973-1976 University of the Witwatersrand, Johannesburg, South Africa.
B.Sc. Civil Engineering

Professional Experience

At Stanford University

- 2021-present. Professor, Department of Oceans, School of Sustainability
- 2021-present Co-Director, Program on Sustainability Science and Practice
- 2018 - present Faculty Athletic Representative to the NCAA
- 2006 – present The William Alden Campbell and Martha Campbell Professor of Engineering
- 2005 - 2014 The Michael Forman University Fellow in Undergraduate Education
- 2004 – 2016 Perry L. McCarty Director, Woods Institute for the Environment
- 1999- 2002 Senior Associate Dean of Engineering, School of Engineering
- 1996- present Professor, Department of Civil and Environmental Engineering
- 1995-1999 Chair, Department of Civil and Environmental Engineering
- 1994-1995 Associate Chair, Department of Civil Engineering
- 1991-1996 Associate Professor, Department of Civil Engineering
- 1991-1996 Director, Environmental Fluid Mechanics Laboratory,
Department of Civil Engineering
- 1985-1991 Associate Director, Environmental Fluid Mechanics Laboratory,
Department of Civil Engineering
- 1984-1991 Assistant Professor, Department of Civil Engineering
- 1983-1984 Acting Assistant Professor, Department of Civil Engineering

- 1979-1983 Research Assistant, Hydromechanics Laboratory,
Department of Civil Engineering
Conducted research on the characteristics of the flow in a lid-driven cavity with and without variable-density effects. Also conducted a comparative study of the laser-Doppler anemometer.
- 1979-1980 Laboratory Instructor, Department of Civil Engineering
Lectured and supervised laboratory section of an undergraduate course in fluid mechanics (Eng 21). Served on committee to re-organize and revise laboratory course material.
- 1978-1979 Teaching Assistant, Department of Civil Engineering
Assisted in graduate and undergraduate courses in hydrology, hydraulics, and sedimentation engineering.

Non-Stanford

- 7/78-10/78 Engineer, Watermeyer, Legge, Piesold and Uhlmann,
1977 Johannesburg, South Africa
Implemented finite-element analysis of cooling tower structures. Performed hydraulic design and layout of water reticulation systems for chemical and power plants.
- 11/75-2/76 Student Engineer, Watermeyer, Legge, Piesold and Uhlmann,
Johannesburg, South Africa.
Finite-element analysis of cooling tower structures.

Awards and Honors/Professional Affiliations

Honors and Awards

- Robert T. Knapp Award given by the Fluids Engineering Division of the American Society of Mechanical Engineers, 1985
- American Society of Civil Engineers Award for Outstanding Service, 1986-87
- Stanford University School of Engineering Tau Beta Pi Award for Excellence in Undergraduate Teaching, 1989
- Leavell Family Faculty Scholar, Stanford University School of Engineering, 1989-92
- Gledden Visiting Senior Fellow, University of Western Australia, 1991
- ASSU Outstanding Teaching Award, 1991-92
- Lillian and Thomas B. Rhodes Award for Excellence in Undergraduate Teaching, 1993
- University Fellow, Stanford University, 1994-1996
- Bing Teaching Fellowship, Stanford University, 1995-1998
- Eugene L. Grant Award for Excellence in Undergraduate Teaching, 1995
- Associated Students of Stanford University, Teacher of the Year – Honorable Mention, 2007
- Eugene L. Grant Award for Excellence in Undergraduate Teaching, 2011
- Fellow of the American Physical Society, 2015
- Richard W. Lyman Award, Stanford University, 2015
- Sustainable Stanford Awardee, Stanford University, 2017
- Borland Lecturer in Hydraulics, Colorado State University, 2018.
- Stanford University School of Engineering Tau Beta Pi Award for Excellence in Undergraduate Teaching, 2019.
- Elected Fellow of California Academy of Sciences, 2020.

Society Memberships

American Society of Civil Engineers
American Society of Mechanical Engineers
American Geophysical Union
American Physical Society

External Service & Scholarly Activities

1994 - 2005 Member, ASCE Technical Committee on Hydraulic Measurements and Experimentation
1992 - 2008 Member, ASCE Technical Committee on Turbulence
1990 - 1994 Member, ASCE Technical Subcommittee for developing an Album of Transport Processes
1992 - 1995 Member, ASCE Technical Committee for developing a Research Advocacy for Hydraulics and Hydrology
1989 - 1992 Member, Technical Advisory Committee to the San Francisco Estuary Project

Reviewerships

- Journal of Fluids Engineering, ASME
- Journal of Hydraulic Engineering, ASCE
- National Science Foundation - Fluid Mechanics
 - Physical Oceanography
 - Biological Oceanography
 - Instrumentation Development
- Journal of Fluid Mechanics
- Environmental Fluid Mechanics
- International Journal of Heat and Fluid Flow
- Experiments in Fluids
- Physics of Fluids
- Journal of Atmospheric and Oceanic Technology
- Journal of Computational Physics
- International Journal for Numerical Methods in Fluids
- Journal of Geophysical Research
- Physical Review Fluids
- Geophysical Research Letters
- Physics Review Fluids
- Science
- Proceedings of National Academy of Sciences

Research Experience and Interests

- Upwelling in coastal systems
- Transport and mixing processes in estuarine and near-coastal systems
- The nature of turbulence in stratified environments
- Numerical techniques for simulating estuarine and geophysical flows
- The hydrodynamics of benthic grazing by bivalve feeders
- The effects of coherent structures on mixing in the upper layers of large waterbodies

- The hydrodynamics of chemical sensing in marine environments
- Mass and momentum transfer in coral-reef and kelp-forest systems
- Transport of microplastics in marine environments
- Dispersion of brine gravity currents in coastal environments
- Identification of surface coherence in turbulent flows
- Transport of Firebrand Embers over Natural Canopies

Teaching

Introduction to Fluid Mechanics; Water Resources Engineering; Environmental Fluid Mechanics; Open Channel Flow; Numerical Methods; Transport and Mixing Processes in Surface Water Flows; Modeling Environmental Flows; Rivers Streams and Canals; Topics in Stratified Turbulence; A Transition to Sustainability; Hydrodynamics.

Service and Contributions

Major Service in Civil and Environmental Engineering and School of Engineering at Stanford

- Associate Director, Environmental Fluid Mechanics Laboratory, 1985-1991
- Director, Environmental Fluid Mechanics Laboratory, 1991-1996
- Chair, Department of Civil and Environmental Engineering, 1995-1999
- Senior Associate Dean of Engineering for Faculty Affairs, 1999-2002
- Member of committee designing and creating the Environmental Systems Engineering degree.

Major University Service at Stanford University

- Co-Chair of the Subcommittee on Antisemitism and Anti-Israeli Bias at Stanford (December 2023 - June 2024)
- Currently serves as the Faculty Athletic Representative to the Pac-12 and NCAA
 - Chaired various committees for Provost on athletics policy regarding housing during Covid Pandemic, health and wellbeing, and athletic performance.
 - Chaired the Pac-12 Council in 2020-21.
 - Chair, Committee on Athletics, Physical Education and Recreation
- Numerous terms as elected member of the Faculty Senate totaling over 20 years of service
 - Chair of Committee on Committees
 - Member of the Senate Executive Committee during 3 terms
- Member of the University Advisory Board
 - Elected multiple time and served a total of more than 10 years
 - Served as both Chair and Vice-Chair of the Board at various times
- Member of the University Committee to develop long-term solution for Searsville Dam and Reservoir for the past 10 years
 - Helped formulate the solution currently being implemented and advised on the supporting engineering studies
- Member of the 4-member faculty panel for the design and construction of the Yang and Yamazaki Environment and Energy Building (Y2E2)
 - Spent four years working with architects, planners, engineers and campus community designing and programming the award-winning building.
 - Oversaw the preparation and submission of the materials for the successful application to U.S. Green Building Council to have the building certified as LEED Platinum.
 - Member and Chair of the Building Leadership Team for Y2E2 responsible for developing policy for the administration of the building.

- Member of the Provost's Sustainability Working Group to coordinate sustainability policy and practices for Stanford University
- Together with Buzz Thompson and Pam Matson served as the leaders for the Initiative on the Environment, Energy and Sustainability which helped coordinate all programs and fundraising on the Environment, Energy, and Sustainability during the fundraising campaign between 2003 and 2010 led by President John Hennessy.

Institution Building at Stanford University

- Member of the Committee designing the Earth Systems Program chaired by Gary Ernst and Joan (John) Roughgarden
 - designed the Environmental Science and Technology track
 - served on Committee of the Whole for multiple terms
- Member of the Steering Committee of the Goldman Interdepartmental Honors Program
- Member of the Committee designing the Emmett Interdisciplinary Program on Environment and Resources
 - Served on the executive committee for 6 years
- Member of the Bio-X IIP Committee
 - Helped formulate and design the seed funding program
 - Served on selection committee for first 3 years of the program
- Global Climate and Energy Program
 - Co-wrote the proposal to ExxonMobil with Lynn Orr for the creation of the program
 - Served on executive committee for a number of years
- Precourt Institute for Energy Efficiency
 - Co-wrote the proposal for the creation of the Institute with Jim Sweeney
 - Served on Advisory Council for a number of years
- Stanford Woods Institute for the Environment - The Institute (<https://woods.stanford.edu/>) currently has a core faculty group of 60 jointly appointed Fellows, more than 150 faculty affiliates, and a budget of \$25 million, focusing its efforts on freshwater, the oceans, natural capital, food security, human health, sustainable development, and climate solutions.
 - Chaired committee formulating the institute concept
 - Co-wrote the business plan (with Buzz Thompson) for the funding of the Institute
 - Directed (together with Buzz Thompson) the Institute from its founding in 2003 until 2016.
 - Co-led (with Buzz Thompson) the development of the \$30M proposal for the formulation of the Center for Ocean Solutions as a partnership with the Monterey Bay Aquarium and the Monterey Bay Aquarium Research Institute
 - Co-led the successful integration of the Center for Environmental Science and Policy from the Freeman-Spogli Institute (FSI) into the Woods Institute, and the joint management of the Food Security and Environment Program with FSI.
 - During the period of Koseff's directorship the Woods Institute successfully launched the following programs:
 - Natural Capital Program
 - Environmental Ventures Program
 - Realizing Environmental Innovations Program
 - Realizing Environmental Leadership Program
 - The Program on Water, Health and Development
 - Water in the West (joint with the Lane Center)
 - Global Freshwater Initiative
- Sustainability Science and Practice Program

- Member of faculty team developing the program
- Currently Faculty Co-Director (with Julia Novy)
- Stanford Doerr School for Sustainability
 - Served on three committees over the period (Nov 2019 to Aug 2021) charged with forming the plans, structure and functioning of the School.
 - Served on planning committee for the Oceans Department
 - Member of the Space Committee for the Department
 - Member of the Fundraising Committee for the Department

Major Outside Professional Academic Service

- Served on the Visiting Committees to the following:
 - Civil and Environmental Engineering – San Jose State University
 - Civil and Environmental Engineering – Carnegie-Mellon University (Chair)
 - Civil and Environmental Engineering - Cornell University
 - Civil Engineering – The Technion: Israel Institute of Technology (Chair)
 - College of Engineering – University of Michigan
 - Iowa Institute of Hydraulic Research – University of Iowa
 - MIT-Woods Hole Joint Program in Oceanography
 - Institute on the Environment – University of Minnesota
 - St. Anthony Falls Hydraulics Laboratory – University of Minnesota

Other Academic and Community Service

- Trustee, The California Academy of Science (2018 to present)
- Member, Advisory Board of Resilient by Design (2017 to 2019)
- Member of the Board of Governors of the Israel Institute of Technology (2007-2010)
- Member of the Advisory Board of Climate Central (2007-2010)
- Member, Palo Alto/Stanford Green Ribbon Task Force on Climate Change (2007-2009)

Current and Former Students

Former Ph.D. Students – As Principal Advisor

Craig, Anna	Apple
Crimaldi, John	University of Colorado
Chung, Hayoon	Stanford University (postdoc)
Dunckley, Jamie	EPRI
Gross, Edward	Private Consulting, Berkeley, CA
Holt, Stephen	Private Consulting, Boise Idaho
Hult, Erin	Facebook
Lowe, Ryan	University of Western Australia
Lucas, Lisa	USGS
Mandel, Tracy	University of New Hampshire
May, Kris	Pathways Climate Institute
McDonald, Ellen	Plummer Associates
Prasad, Ajay	University of Delaware
Rehmann, Chris	Iowa State University
Reidenbach, Matthew	University of Virginia
Rosenzweig, Itay	Facebook
Rosman, Johanna	University of North Carolina
Shih, Lucinda	Contra Costa Water District
Sunberg, Laura Clark	University of Colorado (postdoc)
Tanimoto, Yuki	McKinsey Consulting

Thompson, Janet K	USGS
Troy, Cary	Purdue University
Weitzman, Joel	Boston Consulting Group
Wiley, Megan	Hydrologics, Maryland
Paul Yi	HMEI, Princeton
Zarama, Francisco	Grainger, Minneapolis
Zeller, Robbie	Faire, San Francisco

Former Ph.D. Students – As Co-Advisor

Briggs, David	City of San Francisco Public Utilities	- with Joel Ferziger
diBenedetto, Michelle	University of Washington	- with Nick Ouellette
Gakhar, Saksham	Meta	- with Nick Ouellette
Garg, Rajat	Synopsys Inc	- with Joel Ferziger
Lin, Ching-Long	University of Iowa	- with Joel Ferziger
O'Riordan, Cathy	ESA, Washington DC	- with Stephen Monismith
Rhee, Hyop	ITEC, Saratoga	- with Bob Street
Zang, Yan	EZ Inspections, San Jose.	- with Bob Street

Current Ph.D. Students – As Principal Advisor

Hamilton, Jenny	Stanford University	- with Stephen Monismith (co-adv)
-----------------	---------------------	-----------------------------------

Former Engineer Degree Students – As Principal Advisor

Lee, Sueann	AECOM, Hong Kong
McDonald, Cameron.	Morphum Environmental, New Zealand
Mitchell, Abigail	Mott McDonald Seattle
Moore, Christina	US Army Corps of Engineers, Vicksburg

Post-Doctoral Fellows – as Principal Advisor

Hayoon Chung	Stanford University
Schladow, Geoffrey	University of California, Davis
Piccirillo, Paul	SRI International

Papers in Refereed Journals

- Chung, H., Sunberg, L.K.C, MacDonald, E., Ouellette, N.T., and Koseff, J.R., Dispersion of inertial particles in turbulent canopy flows with buoyant and nonbuoyant plumes, *Physical Review Fluids*, 9, <https://doi.org/10.1103/PhysRevFluids.9.093801>, 2024.
- Serafin, K.A., Koseff, J.R., Ouyang, D., and Suckale, J., Moving from total risk to community-based risk trajectories increases transparency and equity in flood risk mitigation planning along urban rivers, *Environmental Research Letters*, 19(6), <https://doi.org/10.1088/1748-9326/ad3c58>, 2024.
- Sunberg, L.K.C., DiBenedetto, M.H., Ouellette, N.T., and Koseff, J.R., "Parametric Study of the Dispersion of Inertial Non-Spherical Particles in a Wave-Current Flow," *Physical Review Fluids*, Vol. 9, Issue 3, <https://doi.org/10.1103/PhysRevFluids.9.034302>, 2024.
- Yi, Y.R., and Koseff, J.R., "Underlying physics of mixing efficiency for shear-forced, stratified turbulence," *Physical Review Fluids*, 8, 084803, <https://doi.org/10.1103/PhysRevFluids.8.084803>, 2023.
- Chung, H. and Koseff, J.R., "The interaction of a buoyant plume with a turbulent canopy mixing layer," *Physical Review Fluids*, 8, 064501, <https://doi.org/10.1103/PhysRevFluids.8.064501>, (Editors Suggestion, Featured in Physics), 2023.
- Clark, L.K., DiBenedetto, M.H., Ouellette, N.T., and Koseff, J.R., "Dispersion of Finite-Size, Non-Spherical Particles by Waves and Currents" *Journal of Fluid Mechanics*, 954, <https://doi.org/10.1017/jfm.2022.968>, 2022.
- Yi, Y.R., and Koseff, J.R., "Revised mixing coefficient scaling for sheared stably-stratified turbulence," *Journal of Fluid Mechanics*, 952, A18, <https://doi.org/10.1017/jfm.2022.904>, 2022.
- Gakhar, S., Koseff, J.R., and Ouellette, N.T., "Extracting free-surface expressions of underwater features," *Experiments in Fluids*, 63:138, <https://doi.org/10.1007/s00348-022-03491-w>, 2022.
- Yi, Y.R., and Koseff, J.R., "Dynamics and energetics underlying mixing efficiency in homogeneous stably stratified turbulence," *Physical Review Fluids*, 7(8), <https://doi.org/10.1103/PhysRevFluids.7.084801>, 2022.
- Tanimoto, Y., Ouellette, N.T., and Koseff, J.R., "On the interaction between oncoming internal waves and a dense gravity current in a two-layer stratification," *Journal of Fluid Mechanics*, 932, A28, <https://doi.org/10.1017/jfm.2021.1006>, 2022.
- Chung, H., and Koseff, J.R., "Turbulent structure and scales in canopy-wake reattachment", *Physical Review Fluids*, 6, <https://doi.org/10.1103/PhysRevFluids.6.114605>, 2021
- Tanimoto, Y., Ouellette, N.T., and Koseff, J.R., "Secondary generation of breaking internal waves in confined basins by gravity currents," *Journal of Fluid Mechanics*, 917, A49, <https://doi.org/10.1017/jfm.2021.309>, 2021.
- Chung, H., Mandel, T.L., Zarama, F.J., and Koseff, J.R., "Local and nonlocal impacts of gaps on submerged canopy flow," *Water Resources Research*, 57, 2, <https://doi.org/10.1029/2019WR026915>, February 2021.
- Clark, L.K., DiBenedetto, M.H., Ouellette, N.T., and Koseff, J.R., "Settling of inertial nonspherical particles in wavy flow," *Physical Review Fluids*, 5, <https://doi.org/10.1103/PhysRevFluids.5.124301>, 2020.

- Gakhar, S., Koseff, J.R., and Ouellette, N.T., "On the surface expression of bottom features in free-surface flow," *Journal of Fluid Mechanics*, 900, A41, <https://doi.org/10.1017/jfm.2020.548>, 2020.
- Tanimoto, Y., Ouellette, N.T., and Koseff, J.R., "Interaction between an inclined gravity current and a pycnocline in two-layer stratification," *Journal of Fluid Mechanics*, 887, A8, <https://doi.org/10.1017/jfm.2020.9>, 2020.
- Andruszkiewicz, E.A., Koseff, J.R., Fringer, O.B., Ouellette, N.T., Lowe, A.B., Edwards, C.A., and Boehm, A.B., "Modeling Environmental DNA Transport in the Coastal Ocean using Lagrangian Particle Tracking," *Frontiers in Marine Science*, August 7, <https://doi.org/10.3389/fmars.2019.00477>, 2019.
- Ouillon, R., Meiburg, E., Ouellette, N.T., and Koseff, J.R., "Interaction of a downslope gravity current with an internal wave," *Journal of Fluid Mechanics*, 873, pp. 889-913, <https://doi.org/10.1017/jfm.2019.414>, 2019.
- DiBenedetto, M.H., Koseff, J.R., and Ouellette, N.T., "Orientation dynamics of nonspherical particles under surface gravity waves" *Physical Review Fluids*, 4(3), DOI: <https://doi.org/10.1103/PhysRevFluids.4.034301>, 2019.
- Mandel, T.L., Gakhar, S., Chung, H., Rosenzweig, I., and Koseff, J.R., "On the surface expression of a canopy-generated shear instability," *Journal of Fluid Mechanics*, 867, pp. 633-660, <https://doi.org/10.1017/jfm.2019.170>, 2019.
- Monismith, S.G., Koseff, J.R., and White, B.L., "Mixing Efficiency in the Presence of Stratification: When is it constant?," *Geophysical Research Letters*, Volume 45, Issue 11, doi:10.1029/2018GL077229, 2018.
- Chou, Y-J., Nelson, K.S., Holleman, R.C., Fringer, O.B., Stacey, M.T., Lacy, J.R., Monismith, S.G., and Koseff, J.R., "Three-Dimensional Modeling of Fine Sediment Transport by Waves and Currents in a Shallow Estuary," *Journal of Geophysical Research, Oceans*, doi:10.1029/2017JC013064, 2018.
- Houghton, I. A., Koseff, J.R., Monismith, S.G., and Dabiri, J.O., "Vertically migrating swimmers generate aggregation-scale eddies in a stratified column," *Nature*, doi:10.1038/s41586-018-0044-z, 2018.
- DiBenedetto, M.H., Ouellette, N.T., and Koseff, J.R., "Transport of anisotropic particles under waves," *Journal of Fluid Mechanics*, 837, pp. 320-340, doi:10.1017/jfm.2017.853, 2018.
- Hogg, C.A.R., Egan, G.C., Ouellette, N.T., and Koseff, J.R., "Shoaling internal waves may reduce gravity current transport," *Environmental Fluid Mechanics*, Volume 18, Issue 2, <https://doi.org/10.1007/s10652-017-9554-8>, pp. 383-94, 2018.
- Arthur, R.S., Venayagamoorthy, S.K., Koseff, J.R., and Fringer, O.B., "How we compute N matters to estimates of mixing in stratified flows," *Journal of Fluid Mechanics*, 831, R2, doi:10.1017/jf.2017.679, 2017.
- Mandel, T.L., Rosenzweig, I., Chung, H., Ouellette, N.T., and Koseff, J.R., "Characterizing free-surface expressions of flow instabilities by tracking submerged features," *Experiments in Fluids*, 58: 153. <https://doi.org/10.1007/s00348-017-2435-6>, 2017.
- Arthur, R.S., Koseff, J.R., and Fringer, O.B., "Local versus volume-integrated turbulence and mixing in breaking internal waves on slopes," *Journal of Fluid Mechanics*, 815, pp. 169-198,

2017.

- Craig, A.E., Dabiri, J.O., and Koseff, J.R., "Low order physical models of vertical axis wind turbines" *Renewal and Sustainable Energy*, doi: [10.1063/1.4976983](https://doi.org/10.1063/1.4976983), Feb. 28, 2017.
- Craig, A.E., Dabiri, J.O., and Koseff, J.R., "Flow kinematics in variable-height rotating cylinder arrays," *Journal of Fluids Engineering*, 138(11), 111203, Paper FE-16-1062; doi:10.1115/1.4033676, 2016.
- Venayagamoorthy, S.K., and Koseff, J.R., "On the flux Richardson number in stably stratified turbulence," *Journal of Fluid Mechanics*, 798, doi:10.1017/jfm.2016.340, 2016.
- Lucas, L.V., Cloern, J.E., Thompson, J.K., Stacey, M.T., and Koseff, J.R., "Bivalve grazing can shape phytoplankton communities," *Frontiers in Marine Science*, <http://dx.doi.org/10.3389/fmars.2016.00014>, 2016.
- Moore, C.D., Koseff, J.R., and Hult, E.L., "Characteristics of bolus formation and propagation from breaking internal waves on shelf slopes," *Journal of Fluid Mechanics*, Vol 791, pp. 260-283, doi: 10.1017/jfm.2016.58, 2016.
- Craig, A.E., Dabiri, J.O., and Koseff, J.R., "A kinematic description of the flow characteristics in an array of finite-height rotating cylinders," *Journal of Fluids Engineering*, 138(7), 070906, Paper FE-15-1630; doi:10.1115/1.4032600, 2016.
- Mungal, M.G., and Koseff, J.R., "Introduction: 32nd Annual Gallery of Fluid Motion (San Francisco, California, USA, 2014)", *Physics of Fluids*, 27, 091101, <http://dx.doi.org/10.1063/1.4930849>, 2015.
- Chou, Y-J., Hollerman, R.C., Fringer, O.B., Stacey, M.T., Monismith, S.G., and Koseff, J.R., "Three-dimensional wave-coupled hydrodynamics modeling in South San Francisco Bay", *Computers & Geosciences*, 85, pp10–21, doi.org/10.1016/j.cageo.2015.08.010, 2015.
- Weitzman, J.S., Zeller, R.B., Thomas, F.I.M., and Koseff, J.R., "The attenuation of current- and wave-driven flow with submerged multispecific vegetative canopies," *Limnology and Oceanography*, doi: 10.1002/lno.10121, 2015.
- Zeller, R.B., Zarama, F.J., Weitzman, J.S., and Koseff, J.R., "A simple and practical model for combined wave-current canopy flows", *Journal of Fluid Mechanics*, 767, pp 842-880, doi:10.1017/jfm.2015.59, 2015.
- Weitzman, J.S., Samuel, L.C., Craig, A.E., Zeller, R.B., Monismith, S.G., and Koseff, J.R., "On the use of refractive-index-matched hydrogel for fluid velocity measurements in and around geometrically complex solid obstructions," *Experiments in Fluids*, 55, DOI 10.1007/s00348-014-1862-x, 1862- 1874, 2014.
- Walter, R.K., Squibb, M.E., Woodson, C.B., Koseff, J.R., and Monismith, S.G., "Stratified turbulence in the nearshore coastal ocean: Dynamics and evolution in the presence of internal bores," *Journal of Geophysical Research, Oceans*, DOI: 10.1002/2014JC010396, December 2014.
- Zeller, R.B., Weitzman, J.S., Abbett, M.E., Zarama, F.J., Fringer, O.B., and J.R. Koseff, "Improved parameterization of seagrass blade dynamics and wave attenuation based on numerical and laboratory experiments," *Limnology and Oceanography*, 59(1), 251-266, 2014.

- Teneva, L., Dunbar, R.B., Mucciarone, D.A., Dunckley, J.F., and J. R. Koseff, "High-resolution carbon budgets on a Palau back-reef modulated by interactions between hydrodynamics and reef metabolism," *Limnology and Oceanography*, 58(5), 1851-1870, 2013.
- Rosman, J.H., Denny, M.W., Zeller, R., Monismith, S.G., and Koseff, J.R., "Interactions between a kelp forest (*Macrocystis pyrifera*) and waves: Insights from a dynamically scaled laboratory model," *Limnology and Oceanography*, 58(3), 790-802, 2013.
- Weitzman, J.S., Aveni-Deforge, K., Koseff, J.R., and Thomas, F.I.M., Uptake of dissolved inorganic nitrogen by shallow seagrass communities exposed to wave-driven unsteady flow," *Marine Ecology Progress Series*, Vol. 475, doi: 10.3354/meps09965, 65-83, 2013.
- Dunckley, J.F., Koseff, J.R., Steinbuck, J.V., Monismith, S.G., and Genin, A., "Comparison of mixing efficiency and vertical diffusivity models from temperature microstructure," *Journal of Geophysical Research*, 117, C10, doi:10.1029/2012JC007967, 2012
- Kline, D.I., Teneva, L. Schneider, K. Miard, T., Chai, A., Marker, M., Headley, K., Opdyke, B., Nash, M., Valetich, M., Caves, J.K., Russell, B.D., Connell, S.D., Kirkwood, B.J., Brewer, P., Peltzer, E., Silverman, J., Caldeira, K., Dunbar, R.B., Koseff, J.R., Monismith, S.G., Mitchell, B.G., Dove, S., and Hoegh-Guldberg, O., "A short-term in situ CO₂ enrichment experiment on Heron Island," *Scientific Reports*, Vol. 2, Article No. 413, DOI: 10.1038/srep00413 Published: MAY 21 2012
- Steinbuck, J.V., Koseff, J.R., Genin, A., Stacey, M.T., and Monismith, S.G., "Horizontal dispersion of ocean tracers in internal wave shear," *Journal of Geophysical Research*, Vol. 116, C11031, doi:10.1029/2011JC007213, 2011.
- Venayagamoorthy, S.K., Ku, H., Fringer, O.B., Chiu, A., Naylor, R.L., and Koseff, J.R., "Numerical modeling of aquaculture dissolved waste transport in a coastal embayment," *Environmental Fluid Mechanics*, Vol. 11, 4, 2011, pp. 329-352.
- Hult, E. L., Troy, C.D., and Koseff, J.R., "The mixing efficiency of interfacial waves breaking at a ridge: 2. Local mixing processes," *Journal of Geophysical Research*, 116, C02004, doi:10.1029/2010JC006488, 2011.
- Hult, E. L., Troy, C.D., and Koseff, J.R., "The mixing efficiency of interfacial waves breaking at a ridge: 1. Overall mixing efficiency," *Journal of Geophysical Research*, 116, C02003, doi:10.1029/2010JC006485., 2011.
- Rosman, J.H., Monismith, S.G., Denny, M.W., and Koseff, J.R., "Currents and turbulence within a kelp forest (*Macrocystis pyrifera*): Insights from a dynamically scaled laboratory model," *Limnology and Oceanography*, 55: 1145-1158, 2010.
- Steinbuck J. V., Genin A., Monismith S.G., Koseff J.R., Holzman R., and Labiosa R.G., "Turbulent mixing in fine-scale phytoplankton layers: Observations and inferences of layer dynamics," *Continental Shelf Research*, 30(5): 442-455, 2010.
- Hult, E.L., Troy, C.D., and Koseff, J.R., "Harmonic generation of interfacial waves at a submerged bathymetric ridge," *Journal of Geophysical Research-Oceans*, 115, CO2001, 2010.
- Hult, E.L., Troy, C.D., and Koseff, J.R., "The breaking of interfacial waves at a submerged bathymetric ridge," *Journal of Fluid Mechanics*, 637, 45-71, 2010.
- Genin, A., Monismith, S.G. Reidenbach, M.A, Yahel, G., and Koseff, J.R., "Intense benthic grazing of phytoplankton in a coral reef," *Limnology and Oceanography*, 54: 938-951, 2009.

- Reidenbach, M. A., Koseff, J.R., and Koehl, M. A. R., "Hydrodynamic forces on larvae affect their settlement on coral reefs in turbulent, wave-driven flow," *Limnology and Oceanography*, 54(1), 318-330, 2009.
- Lucas, L.V., Koseff, J.R., Monismith, S.G., and Thompson, J.K., "Shallow water processes govern system-wide phytoplankton bloom dynamics: A modeling study," *Journal of Marine Systems*, 75, 70-86, 2009.
- Rosman, J.H., Hensch, J.L., Koseff, J.R., and Monismith, S.G., "Extracting Reynolds stresses from acoustic Doppler current profiler measurements in wave-dominated environments", *Journal of Atmospheric and Oceanic Technology*, 25, 2, Feb. 2008, 286-306.
- Ivey, G.N., Winters, K.B., and Koseff, J.R., "Density stratification, turbulence, but how much is mixing," *Annual Review of Fluid Mechanics*, 40, 2008, 169-184.
- Thompson, J.K., Koseff, J.R., Monismith, S.G., and Lucas, L.V., "Shallow water processes govern system-wide phytoplankton bloom dynamics: A field study," *Journal of Marine Systems*, Volume 74, Issues 1-2, November 2008, 153-166.
- Lowe, R.J., Shavit, U., Falter, J.L., Koseff, J.R., and Monismith, S.G., "Modeling flow in coral communities with and without waves: A synthesis of porous media and canopy flow approaches," *Limnology and Oceanography*, 53(6), 2668-2680, 2008.
- Reidenbach M.A., Koseff J.R., and Monismith S.G., "Laboratory experiments of fine-scale mixing and mass transport within a coral canopy", *Physics of Fluids*, 19, 2007, 075107.
- Gaylord, B., Rosman, J.H., Reed, D.C., Koseff, J.R., Fram, J., MacIntyre, S., Arkema, K., McDonald, C., Brzezinski, M. A., Largier, J.L., Monismith, S.G., Raimondi, P.T., Mardian, B., "Spatial patterns of flow and their modification within and around a giant kelp forest", *Limnology and Oceanography*, 52(5), September 2007, 1838-1852.
- Koehl, M.A.R., Strother, J.A., Reidenbach, M.A., Koseff, J.R., and Hadfield, M.G., "Individual-based model of larval transport to coral reefs in turbulent, wave-driven flow: behavioral responses to dissolved settlement inducer", *Marine Ecology-Progress Series*, 335, 2007, 1-18.
- Lowe, R. J., Falter, J.L., Koseff, J.R., Monismith, S.G., and Atkinson, M.J., "Spectral wave flow attenuation within submerged canopies: Implications for wave energy dissipation," *Journal of Geophysical Research*, 112, C05018, 2007, doi:10.1029/2006JC003605.
- Crimaldi, J.P., Koseff, J.R., and Monismith, S.G., "Structure of mass and momentum fields over a model aggregation of benthic filter feeders," *Biogeosciences*, 4(3), 2007, 269-282.
- Rosman, J. H., Koseff, J.R., Monismith, S.G., and Grover, J., "A field investigation into the effects of a kelp forest (*Macrocystis pyrifera*) on coastal hydrodynamics and transport", *Journal of Geophysical Research*, 112, C02016, 2007, doi:10.1029/2005JC003430.
- Falter, J. L., Atkinson, M.J., Lowe, R.J., Monismith, S.G., and Koseff, J.R., "Effects of nonlocal turbulence on the mass transfer of dissolved species to reef corals", *Limnology and Oceanography*. 52, 2007, 274-285.
- Crimaldi, J.P., and Koseff, J.R., "Structure of turbulent plumes from a momentumless source in a smooth bed", *Environmental Fluid Mechanics* 6 (6), December 2006, 573-592.
- Hult, E.L, Troy, C.D., and Koseff, J.R., "Laboratory images of breaking internal waves," *Physics of Fluids*, 18, September 2006, 091107.

- Crimaldi, J.P., Koseff, J.R., and Monismith, S.G., "A mixing-length formulation for the turbulent Prandtl number in wall-bounded flows with bed roughness and elevated scalar sources," *Physics of Fluids*, 18 (9), September 2006, 095102-095110.
- Reidenbach, M. A., Monismith, S.G., Koseff, J.R., Yahel, G., and Genin. A., "Boundary layer turbulence and flow structure over a fringing coral reef." *Limnology and Oceanography*, 51, 2006, 1956-1968
- Falter, J.L., Atkinson, M.J., Fleming, J.H., Bos, M., Lowe, R.J., Koseff, J.R., and Monismith, S.G., "A new mesocosm for simulating the effects of wave-driven water motion on the biogeochemistry of benthic reef communities, *Limnology and Oceanography: Methods*, 4, 2006, 68-79.
- Troy, C.D., and Koseff, J.R., "The viscous decay of progressive interfacial waves," *Physics of Fluids*, 18, 2006, 026602.
- McDonald, C. B., Koseff, J.R., and Monismith, S.G., "Effects of the depth to coral height ratio on drag coefficients for unidirectional flow over coral," *Limnology and Oceanography*, 51, 2006, 1294-1301.
- Monismith, S.G., Genin, A., Reidenbach, M.A., Yahel, G., and Koseff, J.R., "Thermally Driven Exchanges Between a Coral Reef and the Adjoining Ocean", *Journal of Physical Oceanography*, Vol. 36, No. 7, 2006, 1332-1347.
- Reidenbach M.A., Koseff J.R., Monismith S.G., Steinbuck J.V., and Genin A., "The effects of waves and morphology on mass transfer within branched reef corals", *Limnology and Oceanography*, 51(2), 2006, 1134-1141.
- Troy, C.D., and Koseff, J.R., "The generation and quantitative visualization of breaking internal waves," *Experiments in Fluids*, 38(5), May 2005, pp. 549-562
- Troy, C.D., and Koseff, J.R., "The instability and breaking of long internal waves," *Journal of Fluid Mechanics*, 543, 2005, pp. 107-136.
- Lowe, R.J., Koseff, J.R., and Monismith, S.G., "Oscillatory flow through submerged canopies Part 1. Velocity structure," *Journal of Geophysical Research*, 110, C10016, 2005, doi:10.1029/2004JC002788
- Lowe, R.J., Koseff, J.R., Monismith, S.G., and Falter, J.L., "Oscillatory flow through submerged canopies. Part 2. Canopy mass transfer," *Journal of Geophysical Research*, 110, C10017, 2005, doi:10.1029/2004JC002789
- Lowe, R.J., Falter, J.L., Bandet, M.D., Pawlak, G., Atkinson, M.J., Monismith, S.G., and Koseff, J.R., "Spectral wave dissipation over a barrier reef", *Journal of Geophysical Research-Oceans*, 110, C04001, 2005, doi:10.1029/2004JC002711
- Holzman, R., Reidenbach, M.A., Monismith, S.G., Koseff, J.R., and Genin, A., "Near-bottom depletion of zooplankton over a coral reef: II. Relationships with zooplankton swimming ability", *Coral Reefs*, 24,1, 2005, pp. 87-94.
- Shih, L.H., Koseff, J.R., Ivey, G.N., and J.H. Ferziger, "Parameterization of turbulent fluxes and scales using homogeneous sheared stably- stratified turbulence simulations", *Journal of Fluid Mechanics*, 525, 2005, pp. 193-214.
- Rehmann, C.R. and Koseff, J.R., "Mean potential energy change in weakly and strongly stratified turbulent flow," *Dynamics Atmospheres and Oceans*, 37, 2004, pp. 271-294.

- Venayagamoorthy, S.K., Koseff, J.R., Ferziger, J.H, and L.H. Shih, 2003. Testing of RANS turbulence models for stratified flows based on DNS data, Center for Turbulence Research, Stanford University, Annual Research Briefs - 2003, pp. 127-138.
- Mead, K.S., Wiley, M.B., Koehl, M.A.R., and Koseff, J.R., "Fine-scale patterns of odor encounter by the antennules of Mantis Shrimp tracking turbulent plumes in wave-affected and unidirectional flow", *Journal of Experimental Biology*, 206, 1, 2003, pp. 181-193.
- May, C.L., Koseff, J.R., Lucas, L.V., Cloern, J.E., and Schoellhammer, D.H., "Effects of spatial and temporal variability of turbidity on phytoplankton blooms", *Marine Ecology Progress Series*, 254, 2003, pp. 111-128.
- Genin, A., Yahel, G., Reidenbach, M.A., Monismith, S.G., and Koseff, J.R., "Intense benthic grazing on phytoplankton in coral reefs revealed using the Control Volume approach", *Oceanography*, 15, 2, 2002, pp. 90-96.
- Ferziger, J.H., Koseff, J.R., and Monismith, S.G., "Numerical simulation of geophysical turbulence," *Computers & Fluids*, v31(#4-7), pp. 557-568, May- Sept 2002.
- Crimaldi, J.P., Thompson, J.K., Rosman, J.H., Lowe, R.J., and Koseff, J.R., "Hydrodynamics of larval settlement: the influence of turbulent stress events at potential recruitment sites," *Limnology and Oceanography*, 47, 2002, pp. 1137-1151.
- Crimaldi, J.P., Koehl, M.A.R., and Koseff, J.R., "Effects of the resolution and kinematics of olfactory appendages on the interception of chemical signals in a turbulent odor plume," *Environmental Fluid Mechanics*, 2, 2002, pp. 35-63.
- Crimaldi, J.P., Wiley, M.B., and Koseff, J.R., "The relationship between mean and instantaneous structure in turbulent passive scalar plumes," *Journal of Turbulence*, 3 (014) 2002, <http://stacks.iop.org/JoT/3/014>
- Koehl, M.A. R., Koseff, J.R., Crimaldi, J.P., McCay, M.G., Cooper, T., Wiley, M. B., and Moore, P.A., "Lobster Sniffing: Antennule Design and Hydrodynamic Filtering of Information in an Odor Plume," *Science*, Volume 294, pages 1948-1952, November 30, 2001.
- Calhoun, R.J., Street, R.L., and Koseff, J.R., "Turbulent Flow over a Wavy Surface. Part 2: Stratified Case," *Journal of Geophysical Research*, 106, C5, May 15, 2001, pp. 9295-9310.
- Crimaldi, J.P., and Koseff, J.R., "High-Resolution Measurements of the Spatial and Temporal Scalar Structure of a Turbulent Plume," *Experiments in Fluids*, 31-1, 2001, pp 90-102.
- Garg, R. P., Ferziger, J. H., Monismith, S. G., and Koseff, J. R., "Stably Stratified Turbulent Channel Flows. Part I: Stratification Regimes and Turbulence Suppression Mechanisms," *Physics of Fluids*, 12,10, 2000, pp. 2569-2594.
- Stacey, M.T., Cowen, E.A., Powell, T.M., Monismith, S.G., Koseff, J.R., and Dobbins, E., "Plume Dispersion in a Stratified, Near Coastal Flow: Measurements and Modeling," *Continental Shelf Research*, 20(6), 2000, pp. 637-663.
- Shih, L.H., Koseff, J.R., Ferziger, J.H., and Rehmann, C.R., "Scaling and Parameterization of Stratified Homogeneous Turbulent Shear Flow," *Journal of Fluid Mechanics*, 412, 1-20,2000.
- Lucas, L.V., Koseff, J.R., Monismith, S.G., Cloern, J.E., and Thompson, J.K., "Processes Governing Phytoplankton Blooms in Estuaries. I: The Local Production-Loss Balance," *Marine Ecology Progress Series*, 187, 1-15, 1999.

- Lucas, L.V., Koseff, J.R., Monismith, S.G., Cloern, J.E., and Thompson, J.K., "Processes Governing Phytoplankton Blooms in Estuaries. II: The Role of Horizontal Transport," *Marine Ecology Progress Series*, 187, 17-30, 1999.
- Gross, E.S., Koseff, J.R., and Monismith, S.G., "Three-Dimensional Salinity Simulations of South San Francisco," *Journal of Hydraulic Engineering*, 125,11, 1199-1209, 1999.
- Gross, E.S., Koseff, J.R., and Monismith, S.G., "An Evaluation of Advective Schemes for Estuarine Salinity Simulations," *Journal of Hydraulic Engineering*, 125,1, 32-46, 1999.
- Lin, C-L., Koseff, J.R., Ferziger, J.H., and Monismith, S.G., "Direct Numerical Simulation of Wave-Mean Flow and Wave-Wave Interactions: A Brief Perspective," *Physical Processes in Lakes and Oceans* (ed. J. Imberger), American Geophysical Union, 271-284, 1998.
- Ivey, G.N., Imberger, J., and Koseff, J.R., "Buoyancy Fluxes in a Stratified Fluid," *Physical Processes in Lakes and Oceans* (ed. J. Imberger), American Geophysical Union, 377-388, 1998.
- Lucas, L.V., Cloern, J.E., Koseff, J.R., Monismith, S.G., and Thompson, J.K., "Does the Sverdrup Critical Depth Model Explain Bloom Dynamics in Estuaries," *Journal of Marine Research*, 56,2, 375-415, 1998.
- Gross, E.S., Casulli, V., Bonaventura, L., and Koseff, J.R., "A Semi-Implicit Method for Vertical Transport in Multidimensional Models," *International Journal for Numerical Methods in Fluids*, 28, 157-186, 1998.
- Briggs, D.A., Ferziger, J.H., Koseff, J.R., and Monismith, S.G., "Turbulent Mixing in a Shear-Free Stably Stratified Two-Layer Fluid," *Journal of Fluid Mechanics*, 354, 175-208, 1998.
- Jassby, A.D., Koseff, J.R., and Monismith, S.G., "Processes Underlying Phytoplankton Variability in San Francisco Bay," *San Francisco Bay, The Ecosystem*, (ed. T Hollibaugh), Pacific Division of AAAS, 325-350, 1996.
- Johnson, P.A., Brooks, N.H., French, R.H., Koseff, J.R., Maidment, D.R., Monismith, S.G., Parker, S., "Environmental hydraulics: New research directions for the 21st century," *Journal of Hydraulic Engineering-ASCE*, 122(4), April 1996, 180-183.
- O'Riordan, C.A., Monismith, S.G., Koseff, J.R., "The Effect of Near-Bed Hydrodynamics on Model Bivalve Filtration Rates," *Arch. Hydrobiol. Spec. Issues Advanc. Limnol.*, 47, 247-254, February 1996.
- Prasad, A.K., and Koseff, J.R., "Combined Forced and Natural Convection Heat Transfer in a Deep Lid-Driven Cavity Flow," *International Journal of Heat and Fluid Flow*, 17,5, 460-467, 1996.
- Briggs, D.A., Ferziger, J.H., Koseff, J.R., and Monismith, S.G., "Entrainment in a Shear-Free Turbulent Mixing Layer," *Journal of Fluid Mechanics*, 310, 215-241, 1996.
- O'Riordan, C.A., Monismith, S.G., Koseff, J.R., "The Effect of Bivalve Excurrent Jet Dynamics on Mass Transfer in a Benthic Boundary Layer," *Limnology and Oceanography*, 40, 2, 330-344, 1995.
- Lin, C-L., Koseff, J.R., and Ferziger, J.H., "On Triad Interactions in a Linearly Stratified Ocean," *Journal of Physical Oceanography*, 27, 1, 153-167, 1995.
- McDonald, E.T., and Koseff, J.R., "The Internal Structure of Lateral Intrusions in a Continuously Stratified Heat/Salt System," *Physics of Fluids*, 6,12, 3870-3883, 1994.
- Zang, Y., Street, R.L., and Koseff, J.R., "A Non-Staggered Grid, Fractional Step Method for Time-Dependent Incompressible Navier-Stokes Equations in General Curvilinear Coordinate Systems," *Journal of Computational Physics*, 114, 18-33, 1994.

- Koseff, J.R., Holen, J.K., Monismith, S.G., and Cloern, J.E., "Coupled Effects of Vertical Mixing and Benthic Grazing on Phytoplankton Populations in Shallow, Turbid Estuaries," *J. Marine Res.*, 51,4, 1993, pp. 1-26.
- O'Riordan, C.A., Monismith, S.G., Koseff, J.R., "A Study of Concentration Boundary Layer Formation over a Bed of Model Bivalves," *Limnology and Oceanography*, 38(8), 1993, pp. 1712-1729.
- Zang, Y., Street, R.L., Koseff, J.R., "A Dynamic Mixed Subgrid-Scale Model and its Application to Turbulent Recirculating Flows," *Physics of Fluids A*, 5 (12), 1993, pp.3186-3196.
- Itsweire, E.C., Koseff, J.R., Briggs, D.A., and Ferziger, J.H., "Turbulence in Stratified Shear Flows: Implications for Interpreting Shear-Induced Mixing in the Ocean," *Journal of Physical Oceanography*, 23(7), 1993, pp. 1508-1522.
- Lin, C-L., Ferziger, J.H., Koseff, J.R., and Monismith, S.G., "Simulation and Stability of Two-Dimensional Internal Gravity Waves in a Stratified Shear Layer," *Dynamics of Atmospheres and Oceans*, 19, 1993, pp. 325-366.
- Holt, S.E., Koseff, J.R., and Ferziger, J.H., "A Numerical Study of the Evolution & Structure of Homogeneous Stably Stratified Sheared Turbulence," *Journal of Fluid Mechanics*, 237, 1992, pp. 449-539.
- Schladow, S.G., Thomas, E., and Koseff, J.R., "The Dynamics of Lateral Intrusions in a Thermohaline Stratification," *Journal of Fluid Mechanics*, 236, 1992, pp. 127-165.
- Monismith, S.G., Koseff, J.R., Thompson, J., O'Riordan, C., and Nepf, H.M., "A Study of Model Bivalve Siphon Currents," *Limnology and Oceanography*, 35(3), 1990, pp. 680-696.
- Koseff, J.R., Prasad, A.K., Perng, C-Y., and Street, R.L., "Complex Cavities: How Many Dimensions are Sufficient for Simulation?" *Physics of Fluids*, 2(4), April 1990, pp. 619-622.
- Prasad, A.K., and Koseff, J.R., "Reynolds Number and End-Wall Effects on a Lid-Driven Cavity Flow," *Physics of Fluids, A*, Vol. 1, No. 2, pp. 208-218, 1989.
- Koseff, J.R., and Street, R.L., "Circulation Structure in a Stratified Lid-Driven Cavity Flow," *Jour. Hydr. Div.*, ASCE, 111(2), February 1985.
- Freitas, C.J., Street, R.L., Findikakis, A.N., and Koseff, J.R., "A Successful Numerical Simulation of a Three-Dimensional Cavity Flow," *International Journal for Numerical Methods in Fluids*, 5, pp. 561-575, 1985.
- Rhee, H., Koseff, J.R., and Street, R.L., "Flow Visualization of a Recirculating Flow by Rheoscopic and Liquid Crystal Techniques," *Experiments in Fluids*, 2, pp. 57-64, 1984.
- Koseff, J.R., and Street, R.L., "Visualization Studies of a Shear Driven Three-Dimensional Recirculating Flow," *Jour. Fluid Engineering*, ASME, 106, pp. 21-29, 1984.
- Koseff, J.R., and Street, R.L., "The Lid-Driven Cavity Flow: A Synthesis of Qualitative and Quantitative Observations," *Jour. Fluids Eng.*, ASME, 106, December, pp. 390-389, 1984.
- Koseff, J.R., and Street, R.L., "On End-Wall Effects in a Lid-Driven Cavity Flow," *Jour. Fluids Eng.*, ASME, 106, December, pp. 385-389, 1984.
- Cheung, T.K., and Koseff, J.R., "Simultaneous Backward-Scatter Forward-Scatter Laser-Doppler Anemometer Measurements in an Open Channel Flow," *DISA Information*, 28, pp. 3-9, 1983. (Also,

ASCE EMD Specialty Conference on Measurement Techniques and Prediction Methods in Turbulent Flow, Purdue, May 23-25, 1983.)

Papers in Refereed Conference Proceedings

- Arthur, R.S, Venayagamoorthy, S.K, Koseff, J.R., and Fringer, O.B., "Quantification of highly unsteady and stratified turbulence in breaking internal waves on slopes," International Symposium on Stratified Flows, 1(1), <http://escholarship.org/uc/item/0ws8326k>, 2016.
- Venayagamoorthy, S.K., and Koseff, J.R., "On the mixing efficiency in stably stratified turbulence," International Symposium on Stratified Flows, 1(1), <http://escholarship.org/uc/item/4n1357zj>, 2016.
- Koseff, J.R., Walter, R.K., Dunckley, J.F., Squibb, M.E., Woodson, C.B., Pawlak, G., and Monismith, S.G., " Direct measurements of flux Richardson number in the nearshore coastal ocean," International Symposium on Stratified Flow, 1(1), <http://escholarship.org/uc/item/3n65j5v1>, 2016.
- Hogg, C.A.R., Pietrasz, V., Egan, G.C., Ouellette, N.T., and Koseff, J.R., "The influence of an internal shoaling gravity wave on a dense gravity current," International Symposium on Stratified Flows, 1(1), <http://escholarship.org/uc/item/1960f9fd>, 2016.
- Hult, E.L., Koseff, J.R, and Troy, C.D., "Richardson number measurements in breaking internal waves," *ASCE Conference on Hydraulic Measurements and Experimental Methods*, Lake Placid, September 10-12, 2007.
- Hult, E.L., Troy, C.D., and Koseff, J.R., "Laboratory Investigation of Progressive Internal Wave Interactions with Topography, *Proc. 6th Int. Symp. Strat. Flows*, Perth, Australia, Dec. 10-14, 2006, 636-641.
- Troy, C.D., Hult, E.L, and Koseff, J.R., "Experiments on a strongly-stratified turbulent patch with periodic forcing", *Proc. 6th Int. Symp. Strat. Flows*, Perth, Australia, Dec. 10-14, 2006.
- Crimaldi, J.P. and J.R. Koseff. The structure of passive scalar plumes in turbulent boundary layers. *Proceedings of the 2nd International Symposium on Turbulence and Shear Flow Phenomena*, vol. I, pp. 115-120. Stockholm, Sweden, June 27-29, 2001.
- Koehl, M.A., Hadfield, M.D., Cooper, T., Reidenbach, M.A., and Koseff, J.R., "Can larvae of benthic animals use dissolved chemical cues in wave-driven flow", *American Zoologist*, v40(#6), pp. 1089, December 2000.
- Wiley, M.B., Mead, K.S., Koseff, J.R., and Koehl, M.A.R., "Odor Plume Structures Encountering 'Hemisquilla Ensiferas' Sensors and Subsequent Tracking Behavior in a Wave-Influenced Environment," *Sensors and Sensing in the Natural and Fabricated Worlds*, Second International Symposium on the Mechanics of Plants, Animals and their Environments, Castelvecchio Pascoli, Italy, June 11-16, 2000.
- Crimaldi, J.P., Koseff, J.R., and Wiley, M.B., "A Laboratory Investigation of the Structure of Turbulent Odor Plumes," *Sensors and Sensing in the Natural and Fabricated Worlds*, Second International Symposium on the Mechanics of Plants, Animals and their Environments, Castelvecchio Pascoli, Italy, June 11-16, 2000.
- Cowen, E.A., Monismith, S.G., and Koseff, J.R. (1995), "Digital Particle Tracking Velocimetry Measurements Very Near a Free-Surface," *Air Water Transfer. Selected Papers from the Third*

- International Symposium on Air-Water Gas Transfer, ed. B. Jahne and E.C. Monahan, Aeon Verlag and Studio, 135-144.
- Zang, Y., Street, R.L., and Koseff, J.R., "Large Eddy Simulation of Turbulent Cavity Flow Using a Dynamic Subgrid-Scale Model," *Engineering Applications of Large Eddy Simulations* (edited by S. A. Ragab and U. Piomelli), ASME Fluids Engineering Conference, Washington, D.C., June 20-24, pp 121 - 126, 1993.
- Zang, Y., Street, R.L., and Koseff, J.R., "Three-Dimensional Composite-Multigrid Computations of Incompressible Flows in Complex Geometries," *Computational Mechanics*, (Lee & Leung, Eds.), Balkema Press, 1991, pp. 1379-1384.
- Zang, Y., Street, R.L., and Koseff, J.R., "A Composite-Multigrid Method for Solving Unsteady Incompressible Navier-Stokes Equations in Complex Geometries," *Proc. of the Seventh International Conference on Numerical Methods in Laminar and Turbulent Flow*, Stanford University, July 15-19, 1991, pp. 1485-1495.
- Holt, S., Koseff, J.R., and Ferziger, J.H., "The Evolution of Turbulence in the Presence of Mean Shear and Stable Stratification," *Proc. Seventh Symposium on Turbulent Shear Flows*, Stanford University, Stanford, CA, Aug. 21-23, 1989, pp. 12.2.1-12.2.6.
- Prasad, A.K., and Koseff, J.R., "Mixed-Convection Heat Transfer in a Deep Lid-Driven Cavity Flow," *Heat Transfer in Convective Flow*, ASME, HTD-Vol 107, pp. 155-162, 1989.
- Prasad, A.K., Perng, C-Y., and Koseff, J.R., "Some Observations on the Influence of Longitudinal Vortices in a Lid-Driven Cavity Flow," *Proc. First National Fluid Dynamics Congress*, Cincinnati, Ohio, July 24-28, 1988, pp. 288-295.
- Holt, S., and Koseff, J.R., "Plume-Underflow Interaction in Natural Enclosures," *Proc. National Conference on Hydraulic Engineering*, Williamsburg, Aug. 3-7, 1987, pp. 128-134.
- Jiang, J-Y., Prasad, A.K., Koseff, J.R., Cheung, T.K., Street, R.L., and Klotz, S.P., "Can Reliable Phase Measurements be made by Laser-Doppler Anemometry?" *Proc. 3rd Int'l Laser Doppler Anemometry Symposium*, ASME, FED-Vol. 55, pp. 59-62, 1987.
- Rhee, H.-S., Koseff, J.R. and Street, R.L., "Simultaneous Flow and Temperature Field Visualization in a Mixed-Convection Flow," *Proc. 4th Int'l Symp. on Flow Visualization*, Paris, Aug. 26-29, 1986.
- Rhee, H.-S., Koseff, J.R., and Street, R.L., "Visualization of Natural and Mixed-Convection Flow in a Cavity," *Int'l Symp. on Refined Flow Modeling and Turbulence Measurements*, University of Iowa, Iowa City, Iowa, pp. I11 1-9, September 1985.
- Meakin, R.L., Rhee, H.-S., Koseff, J.R., and Street, R.L., "Computer-Based Data Acquisition, Analysis and Control: A Minicomputer System," *Proceedings of ASCE 1985 Hydraulics Division Specialty Conference*, Orlando, Florida, August 13-16, pp. 1059-1064, 1985.
- Meakin, R. L., Koseff, J.R., and Street, R.L., "A Fiber Optical Link for Modular Two Component LDA Optics and Argon-Ion Lasers," *Proc. of Second International Symposium on Applications of Laser Anemometry to Fluid Mechanics*, Lisbon, Portugal, July 2-4, Sect. 10.2, pp. 1-5, 1984.
- Koseff, J.R., Rhee, H., and Street, R.L., "Mixing in a Stratified Recirculating Flow," *Proc. of Conf. on Frontiers in Hydraulic Engineering*, Mass. Inst. Tech., Aug. 9-12, pp. 1-6, 1983.
- Koseff, J.R., Street, R.L., Gresho, P.M., Upson, C.D., Humphrey, J.A.C., and To, W.-M., "A Three-Dimensional Lid-Driven Cavity Flow: Experiment and Simulation," *Proc. of Third Int'l Conf. on Numerical Methods in Laminar and Turbulent Flow*, Univ. Washington, Aug. 8-11, pp. 564-581, 1983.

Koseff, J.R., Street, R.L., and Rhee, H., "Velocity Measurements in a Lid-Driven Cavity Flow," ASME Symposium on Numerical and Experimental Investigations of Confined Recirculating Flows, preprint No. 83-FE-12, Houston, June 20-22, 1983.

Koseff, J.R., and Street, R.L., "Visualization Studies of a Shear-Driven, Three-Dimensional Recirculating Flow," *Three-Dimensional Turbulent Shear Driven Flows*, ASME, pp. 23-31, 1982.

Papers in Conference Proceedings

Yi, Y.R., Koseff, J.R., and Bou-Zeid, E.R., Analysis and modeling of slow and rapid pressure correlations in stably stratified turbulence, Abstract: R27.00006, 76th Annual Meeting of the APS Division of Fluid Dynamics, Washington, DC, November 2023

Chung, H., Clark, L.K., MacDonald, E., Ouellette, N.T., and Koseff, J.R., Experimental study of parameters affecting Firebrand Transport, Abstract: X17.00005, 76th Annual Meeting of the APS Division of Fluid Dynamics, Washington, DC, November 2023

Chung, H., Sunberg, L.K.C., MacDonald, E., Ouellette, N.T., and Koseff, J.R., Experimental Study of Parameters Affecting Firebrand Transport, Abstract A42A-01 (invited), AGU23 American Geophysical Union Fall Annual Meeting, San Francisco, CA, 2023

Yi, Y.R., Johnson, P.L., and Koseff, J.R., Irreversible mixing in stably-stratified turbulence under momentum and scalar forcing: beyond the turbulent Froude Number, Abstract T37.00007, 75th Annual Meeting of the APS Division of Fluid Dynamics, Indianapolis, Indiana, November 2022.

Clark, L.K., DiBenedetto, M., Ouellette, N.T., and Koseff, J.R., Numerical modeling of dispersion of non-spherical particles by waves and currents, Abstract Q36.00003, 75th Annual Meeting of the APS Division of Fluid Dynamics, Indianapolis, Indiana, November 2022.

Hamilton, J.F., Monismith, S.G., and Koseff, J.R., Wave-current interactions over coral reef morphology, Abstract T37.00003, 75th Annual Meeting of the APS Division of Fluid Dynamics, Indianapolis, Indiana, November 2022.

Serafin, K.A., Koseff, J.R., Baker, J.W., and Suckale, J., Flood risk transfer as a consequence of climate change and infrastructure modifications along the San Francisquito Creek, California. Oral presentation to *Advances in Extreme Value Analysis and Application to Natural Hazards (EVAN)* conference, Orlando, Florida, May 2022.

Clark, L.K., DiBenedetto, M., Ouellette, N.T., and Koseff, J.R., Transport of Non-Spherical Particles by Waves and Currents, Bulletin of the American Physical Society, Abstract M27.00001, 74th Annual Meeting of the APS Division of Fluid Dynamics, Phoenix, Arizona, November 2021.

Gakhar, S., Koseff, J.R., and Ouellette, N.T., Analyzing free-surface deformations for flow over submerged bedforms, Bulletin of the American Physical Society, Abstract M16.00001, 74th Annual Meeting of the APS Division of Fluid Dynamics, Phoenix, Arizona, November 2021.

Chung, H., and Koseff, J.R., Impact of canopy-induced instability on buoyant plumes, Bulletin of the American Physical Society, Abstract A10.00004, 74th Annual Meeting of the APS Division of Fluid Dynamics, Phoenix, Arizona, November 2021.

Gakhar, S., Koseff, J.R., and Ouellette, N.T., Spatiotemporal reconstruction of free surfaces for underwater bedform inference, American Geophysical Union Fall Meeting, <https://doi.org/10.1002/essoar.10505434.1>, December 2020.

- Gakhar, S., Koseff, J.R., and Ouellette, N.T., Identifying surface expressions of submerged bottom features using machine learning, *Bulletin of the American Physical Society*, Abstract X03.00010, 73rd Annual Meeting of the APS Division of Fluid Dynamics, Chicago, Illinois, November 2020.
- Yi, Y., Koseff, J.R., and Mani, A., Large-scale anisotropy determines mixing regimes of stable-stratified turbulence, *Bulletin of the American Physical Society*, Abstract P17.00006, 73rd Annual Meeting of the APS Division of Fluid Dynamics, Chicago, Illinois, November 2020.
- Clark, L.K., DiBenedetto, M., Ouellette, N.T., and Koseff, J.R., Settling of inertial non-spherical particles in wavy flow, *Bulletin of the American Physical Society*, Abstract Y05.00016, 73rd Annual Meeting of the APS Division of Fluid Dynamics, Chicago, Illinois, November 2020.
- Serafin, K.A., Suckale, J., Koseff, J.R., and Baker, J.W., Climate change and management decisions could transfer flood risk to socioeconomically disadvantaged communities along the San Francisquito Creek, California, American Geophysical Union Fall Meeting, Washington, D.C., December 2020.
- Serafin, K.A., Suckale, J., Koseff, J.R., and Baker, J.W., Disentangling flood drivers: Coastal River flood risk in a changing climate. Poster presentation at the 7th UF Water Institute Symposium, University of Florida, Gainesville, FL, February 25, 2020.
- Yi, Y.R., and Koseff, J.R., "Mixing efficiency for forced, stationary, stratified turbulence: when is it constant?", (Abstract CP24F-1200) TOS/ASLO/AGU Ocean Sciences Meeting, San Diego, California, February 16-21, 2020.
- Tanimoto, Y., Ouellette, N.T., and Koseff, J.R., "Interaction between an inclined gravity current and a pycnocline in a two-layer stratification," (Abstract CP14C-1072) TOS/ASLO/AGU Ocean Sciences Meeting, San Diego, California, February 16-21, 2020.
- DiBenedetto, M.H., Koseff, J.R., and Ouellette, N.T., "Waves effects on the dispersal of buoyant particles," (Abstract PS33A-07) TOS/ASLO/AGU Ocean Sciences Meeting, San Diego, California, February 16-21, 2020.
- DiBenedetto, M.H., Koseff, J.R., and Ouellette, N.T., "Influence of the free surface on the distribution of buoyant particles in wavy flow", *Bulletin of the American Physical Society*, Abstract A02.00004, 64(13), November 2019.
- Chung, H., Mandel, T., Dronov, M., and Koseff, J.R., "Turbulent Intensity Enhancement by gaps in submerged canopy flows," *Bulletin of the American Physical Society*, Abstract G18.00002, 64(13), November 2019.
- Clark, L.K., DiBenedetto, M., H. Ouellette, N.T., and Koseff, J.R., "Shape Dependence of Settling Velocities for Particles in Wavy Flows", *Bulletin of the American Physical Society*, Abstract H37.00004, 64(13), November 2019.
- DiBenedetto, M. H., Koseff, J. R., & Ouellette, N. T. "Microplastics transport in the nearshore environment." *Environmental Fluid Dynamics: Confronting Grand Challenges*, Les Houches, France, 20-25 January 2019.
- Tanimoto, Y., Ouellette, N., and Koseff, J.R., "The Interaction between an inclined gravity current and a pycnocline in a two-layer stratification", *Bulletin of the American Physical Society*, Abstract S39.00003, November 2019.

- Serafin, K.A., Suckale, J., Koseff, J.R., and Baker, J.W., 'Rethinking return levels: Towards a meaningful assessment of flood risk in a changing climate.' American Geophysical Union Fall Meeting, Washington, D.C., December 2018.
- Andruszkiewicz, E., Fringer, O.B., Koseff, J.R., Ouellette, N.T., Lowe, A., Edwards, C., and Boehm, A., "Investigating Environmental DNA Transport in the Coastal Ocean using a numerical ocean model and Lagrangian Particle Tracking," National Conference on Marine Environmental DNA, November 29-30, 2018.
- DiBenedetto, M., Koseff, J.R., and Ouellette, N. "Orientation focusing and stabilization of non-spherical particles in waves", Bulletin of the American Physical Society, Abstract D37.00009, November 2018.
- Houghton, I.A., Koseff, J.R., Monismith, S.G., and Dabiri, J.O., "Hydrodynamics of swarms at intermediate Reynolds number", Bulletin of the American Physical Society, Abstract E26.00001, November 2018.
- Chung, H., Mandel, T., Gakhar, S., and Koseff, J.R., "Impact of streamwise heterogeneity due to gaps and patchiness on canopy flow dynamics", Bulletin of the American Physical Society, Abstract E29.00002, November 2018.
- Tanimoto, Y., Ouellette, N., and Koseff, J.R., "The Interaction of Dense Gravity Currents with Internal Waves", Bulletin of the American Physical Society, Abstract F356.00009, November 2018.
- Mandel, T., Gakhar, S., Chung, H., Rosenzweig, I., and Koseff, J.R., "The surface signature of a canopy-generated shear instability", Bulletin of the American Physical Society, Abstract M05.00007, November 2018.
- Andruszkiewicz, E., Fringer, O.B., Koseff, J.R., Ouellette, N.T., Lowe, A., Edwards, C., and Boehm, A., "Modeling Environmental DNA Transport in the Coastal Ocean using Lagrangian Particle Tracking," 148th Annual Meeting of the American Fisheries Society, August 20-23, 2018
- DiBenedetto, M., Koseff, J.R., and Ouellette, N. "Shape Effects on transport of microplastics in wavy flows," (Abstract PO11A-07) TOS/ASLO/AGU Ocean Sciences Meeting, Portland, Oregon, February 11-16, 2018.
- Chung, H., Mandel, T., and Koseff, J.R., "Effects of canopy inhomogeneity in submerged vegetative flow," (Abstract EP44A-0866) TOS/ASLO/AGU Ocean Sciences Meeting, Portland, Oregon, February 11-16, 2018.
- Koseff, J.R., Monismith, S.G., Walter, R.K., Davis, K.A., Woodson, C.B., Pawlak, G.R., Squibb, M.E., and Dunckley, J., "Buoyancy Fluxes in Stratified Flows: Observations and Parameterizations", (Abstract PS21A-05) TOS/ASLO/AGU Ocean Sciences Meeting, Portland, Oregon, February 11-16, 2018.
- Tanimoto, Y., Hogg, C.A.R., Ouellette, N.T., and Koseff, J.R., "Dense Gravity Currents with breaking internal waves," (Abstract CD23A-08) TOS/ASLO/AGU Ocean Sciences Meeting, Portland, Oregon, February 11-16, 2018.
- Mandel, T., Chung, H., and Koseff, J.R., "Characterizing submerged ecosystems and their hydrodynamics from surface disturbances," (Abstract EP44A-0865) TOS/ASLO/AGU Ocean Sciences Meeting, Portland, Oregon, February 11-16, 2018.

- Monismith, S.G., Koseff, J.R., Walter, R., Squibb, M., Woodson, C.B., Davis, K., Pawlak, G., and Dunckley, J., "Buoyancy fluxes in stratified flows: observations and parameterizations," *Bulletin of the American Physical Society*, Abstract L23.00006, 2017.
- Koseff, J.R., Hogg, C.A.R., Ouillon, R., Ouellette, N.T., and Meiburg, E., "Influence of internal waves on transport by a gravity current," *Bulletin of the American Physical Society*, Abstract D34.00006, 2017.
- Tanimoto, Y., Hogg, C.A.R., Ouellette, N.T., and Koseff, J.R., "Dense Gravity Currents with breaking internal waves," *Bulletin of the American Physical Society*, Abstract D34.00007, 2017.
- Mandel, T., Chung, H., and Koseff, J.R., "The evolution of the surface signature of a canopy-generated shear instability using free-surface synthetic Schlieren," *Bulletin of the American Physical Society*, Abstract L20.00009, 2017.
- Fringer, O.M., Arthur, R., Venayagamoorthy, S., and Koseff, J.R., "The effect of different methods to compute N on estimates of mixing in stratified flows," *Bulletin of the American Physical Society*, Abstract M32.00003, 2017.
- DiBenedetto, M., Ouellette, N.T., and Koseff, J.R., "Dynamics of anisotropic particles under waves," *Bulletin of the American Physical Society*, Abstract G363.00010, 2017.
- Craig, A.E., Dabiri, J.O., and Koseff, J.R., "Low order physical models of vertical axis wind turbines," *Bulletin of the American Physical Society*, Abstract H2.005, DOI: 10.1103/BAPS.2016.DFD.H2.5, 2016.
- Mandel, T., Rosenzweig, I., and Koseff, J.R., "Free-surface tracking of submerged features to infer hydrodynamic flow characteristics," *Bulletin of the American Physical Society*, Abstract L31.007, DOI: 10.1103/BAPS.2016.DFD.L31.7, 2016.
- DiBenedetto, M., Koseff, J.R., and Ouellette, N. "Transport of inertial anisotropic particles under surface gravity waves," *Bulletin of the American Physical Society*, Abstract L31.007, DOI: 10.1103/BAPS.2016.DFD.L31.7, 2016.
- Rosenzweig, I., Zarama, F.J., Garcia, A.M, and Koseff, J.R., "Free surface expression of shear instability in unidirectional canopy induced flows," (Abstract ID EC12A-08), TOS/ASLO/AGU Ocean Sciences Meeting, New Orleans, Louisiana, February 21-26, 2016.
- Arthur, R., Fringer, O.B., and Koseff, J.R., "Local vs. Bulk Measures of the Mixing Efficiency in Breaking Internal Waves on Slopes," (Abstract ID PO24E-2998), TOS/ASLO/AGU Ocean Sciences Meeting, New Orleans, Louisiana, February 21-26, 2016.
- Mandel, T., Rosenzweig, I., Koseff, J.R., and Suckale, J., "Modification of Surf Zone Turbulence and the Undertow by a Submerged Canopy," (Abstract ID EC14C- 1018), TOS/ASLO/AGU Ocean Sciences Meeting, New Orleans, Louisiana, February 21-26, 2016.
- Hogg, C.A., Pietrasz, V., Ouellette, N.T., and Koseff, J.R., "Influence of internal waves on the dispersion and transport of inclined gravity currents," Abstract ID HI34B- 1815), TOS/ASLO/AGU Ocean Sciences Meeting, New Orleans, Louisiana, February 21-26, 2016.
- Hogg, C. A. R., Pietrasz, V., Ouellette, N.T., and Koseff, J.R., "Dispersion and transport of hypersaline gravity currents in the presence of internal waves at a pycnocline," (Abstract ID OS11A-2005), AGU Fall Meeting, San Francisco, CA, Dec 14-18, 2015.

- Zarama, F.J, Zeller, R.B., and Koseff, J.R., "Development of turbulence downstream of a submerged aquatic canopy in unidirectional and wave-current flows," *Bulletin of the American Physical Society*, Volume 60, Number 21, Abstract A21.00007, 2015.
- Craig, A.E., Dabiri, J.O., and Koseff, J.R., "Patterns of 3D flow in a rotating cylinder array", *Bulletin of the American Physical Society*, Volume 60, Number 21, Abstract H12.00003, 2015
- Weitzman, J.S., Samuel, L.C., Craig, A.E., Zeller, R.B., Monismith, S.G., and Koseff, J.R., "New experimental opportunities using refraction matched hydrogel: invisible objects, arrays, and features that obstruct flow but not light," *Bulletin of the American Physical Society*, Volume 59, Number 20, Abstract L29.00008, 2014
- Zarama, F.J, Zeller, R.B., and Koseff, J.R., "Development of turbulence downstream of a submerged aquatic canopy," *Bulletin of the American Physical Society*, Volume 59, Number 20, Abstract R32.00003, 2014.
- Zeller, R.B., Zarama, F.J., and Koseff, J.R., "Self-similarity of wakes in wave-driven canopy flow," *Bulletin of the American Physical Society*, Volume 59, Number 20, Abstract R32.00004, 2014.
- Dunkley, J. F.; Koseff, J. R.; Genin, A.; Monismith, S. G.; and Woodson, C. B., "Mixing Efficiency and Vertical Diffusivity Measured During Dynamic Stratification Conditions over a Sloping Coral Reef: Eilat, Israel," Abstract ID: 13936), TOS/ASLO/AGU Ocean Sciences Meeting, Honolulu, Hawaii, February 23-28, 2014.
- Litvin, S. Y.; Genin, A.; Koseff, J. R.; Monismith, S. G.; and Woodson, C. B., "Variable Depletion of Zooplankton Through a Rocky Reef Kelp Forest," (Abstract ID: 17405), TOS/ASLO/AGU Ocean Sciences Meeting, Honolulu, Hawaii, February 23-28, 2014.
- Mandel, T. L.; Rosenzweig, I.; Weitzman, J. S.; and Koseff, J. R. (2014), "Exploration of a Novel High-Resolution Surface Measurement Technique for Detecting the Impact of Heterogeneous Bathymetric Features on Near-Shore Hydrodynamics," (Abstract ID: 17546), TOS/ASLO/AGU Ocean Sciences Meeting, Honolulu, Hawaii, February 23-28, 2014.
- Weitzman, J. S.; Samuel, L. C.; Zeller, R. B.; Monismith, S. G.; and Koseff, J. R. (2014), "The Use of Refraction Index Matched Material for Visualization and Quantification of Flow Within Complex, Bio-Inspired Benthic Structures," (Abstract ID: 17708), TOS/ASLO/AGU Ocean Sciences Meeting, Honolulu, Hawaii, February 23-28, 2014.
- Zeller, R. B.; Weitzman, J. S.; and Koseff, J. R. (2014), "Particle Image Velocimetry Measurements of Horizontal Flow Structure and Wake Production of Turbulence in a Rigid Submerged Canopy Exposed to Oscillatory Flow," (Abstract ID: 17712), TOS/ASLO/AGU Ocean Sciences Meeting, Honolulu, Hawaii, February 23-28, 2014.
- Craig A.E., Zeller R.B., Zarama F.J., Weitzman J.S., Dabiri J.O., and Koseff, J.R., (2013) "The horizontal planar structure of kinetic energy in a model vertical-axis wind turbine array," *Bulletin of the American Physical Society Division of Fluid Dynamics Meeting*, November 24-26, Pittsburg, PA.
- Monismith, S.G., Woodson, B., Squibb, M., Walter, R., Al Najjar, M., and Koseff, J.R., (2013) "Internal waves in the nearshore coastal ocean," 21st Biennial Conference of the Coastal and Estuarine Research Federation, 3-7 November, San Diego, CA.
- Rosenzweig, I., and Koseff, J. R., (2013) Response of surface turbulence statistics to a submerged canopy," 21st Biennial Conference of the Coastal and Estuarine Research Federation, 3-7 November, San Diego, CA.

- Weitzman, J. S., Zeller, R. B., Zarama, F. J., and Koseff, J. R., (2013) "Current- and wave-driven flow within polycultural vegetated canopies," 21st Biennial Conference of the Coastal and Estuarine Research Federation, 3-7 November, San Diego, CA.
- Zarama, F.J., Zeller, R.B., Weitzman, J.S., and Koseff, J.R., (2013), "Development of turbulence downstream of shallow submerged vegetation," 21st Biennial Conference of the Coastal and Estuarine Research Federation, 3-7 November, San Diego, CA.
- Zeller, R. B., Weitzman, J. S., Koseff, J. R., Abbett, M. E., Zarama, F. J., and Fringer, O. B., (2013), "Improved parameterization of seagrass blade dynamics in wavy flows," 21st Biennial Conference of the Coastal and Estuarine Research Federation, 3-7 November, San Diego, CA.
- Chua, V.P., Fringer, O.B., Fong, D.A., Monismith, S.G., and Koseff, J.R., "Modeling the Impact of Sea-Level Rise on Salinity Intrusion in San Francisco Bay," (Abstract ID: 9460), TOS/ASLO/AGU Ocean Sciences Meeting, Salt Lake City, February 19-24, 2012.
- Moore, C.D., Hult, E.L., and Koseff, J.R., "Conditions for bolus formation from breaking internal waves on shelf slopes," (Abstract ID: 9520), TOS/ASLO/AGU Ocean Sciences Meeting, Salt Lake City, February 19-24, 2012.
- Zeller, R. B., Weitzman, J. S., Abbett, M. E., Fringer, O. B., and Koseff, J. R., "Seagrass blade dynamics in unidirectional, oscillatory, and combined flows," (Abstract ID: 9801), TOS/ASLO/AGU Ocean Sciences Meeting, Salt Lake City, February 19-24, 2012.
- Dunckley, J.F., Koseff, J.R., Genin, A., Monismith, S.G., Woodson, C.B., Lindemann, Y., and Zarubin, M., "The fine-scale hydrodynamics of a sloping coral reef: Eilat Israel," (Abstract ID: 11471), TOS/ASLO/AGU Ocean Sciences Meeting, Salt Lake City, February 19-24, 2012.
- Alnajjar, M.W., Woodson, C.B., Monismith, S.G., Koseff, J.R., Genin, A., Litvin, S., Moniz, R.J., Walter, R.K., Dunckley, J., and Leary, P.R., "Hydrodynamics of a Headland Kelp Forest," (Abstract ID: 12826), TOS/ASLO/AGU Ocean Sciences Meeting, Salt Lake City, February 19-24, 2012.
- Dunckley, J.F., Steinbuck, J.V., and Koseff, J.R., "Comparison of Mixing Efficiency and Vertical Scalar Diffusivity Models calculated from microstructure," Proceedings of the VII International Symposium on Stratified Flows, Rome, August 22-26, 2011.
- Moore, C., Hult, E., and Koseff, J.R., "Characteristics of Bolus Formation from Breaking Internal Waves on Shelf Slopes," Proceedings of the VII International Symposium on Stratified Flows, Rome, August 22-26, 2011.
- Steinbuck, J.V., Koseff, J.R., Genin, A., Stacey, M.T., and Monismith, S.G., "Horizontal dispersion of ocean tracers in internal wave shear," *Eos Trans. AGU*, 91(26), Ocean-Sci. Meeting Suppl., Abstract IT45A-06, 2010.
- Weitzman, J.S., Aveni-Deforge, K., Koseff, J.R., and Thomas, F.I., "Wavy turbulence in Florida Bay seagrass canopies", *Eos Trans. AGU*, 91(26), Ocean-Sci. Meeting Suppl., Abstract PO45H-09, 2010.
- Fleischfresser, J.D., Hench, J.L., Walter, L.M., Monismith, S.G., and Koseff, J.R., "Evolution of a reef pass jet from microstructure profiles," *Eos Trans. AGU*, 91(26), Ocean-Sci. Meeting Suppl., Abstract PO45K-05, 2010.
- Hult, E.L., Troy, C.D., and Koseff, J.R., "Spatial and Temporal Variability of Internal Wave Mixing at a Submerged Ridge," *Eos Trans. AGU*, 91(26), Ocean-Sci. Meeting Suppl., Abstract PO25K-09, 2010.

- Lee, S., Brennan, M., Crooks, S., Orr, M., Koseff, J.R., and Monismith, S.G., "Modeling the effect of wind-waves on the evolution of marshplains and mudflats," *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract OS23A-1242, 2008.
- Hult, E.L., Troy, C.D., and Koseff, J.R., "Wave instability criteria for interfacial waves breaking over a ridge," AGU/ASLO/TOS/ERF Ocean Sciences Meeting, Orlando, Florida, March 2-7, 2008, Abstract ID:806.
- Genin, A., Koseff, J.R., Monismith, S.G., Steinbuck, J.V., Vaknin, R., and Holtzman, R., "In situ Lagrangian measurements of phytoplankton production and mortality: a net heterotrophic state of the upper oligotrophic water column," AGU/ASLO/TOS/ERF Ocean Sciences Meeting, Orlando, Florida, March 2-7, 2008, Abstract ID:1300.
- Steinbuck, J.V., Genin, A., Monismith, S.G., Koseff, J.R., and Holtzman, R., "Observations of a planktonic layer in its physical environment," AGU/ASLO/TOS/ERF Ocean Sciences Meeting, Orlando, Florida, March 2-7, 2008, Abstract ID:1392.
- Venayagamoorthy, S.K., Fringer, O.B., Koseff, J.R., and Naylor, R.L., "Simulations of Mixing and Transport of Dissolved Waste Discharged from near-coastal aquaculture pen," AGU/ASLO/TOS/ERF Ocean Sciences Meeting, Orlando, Florida, March 2-7, 2008, Abstract ID:1533.
- Rosman, J.H., Koseff, J.R., and Monismith, S.G., "Flow development and turbulence generation within a kelp forest (*Macrosystis Pyrifera*): lessons from a small-scale laboratory model," AGU/ASLO/TOS/ERF Ocean Sciences Meeting, Orlando, Florida, March 2-7, 2008, Abstract ID:2260.
- Weitzman, J.S., Aveni-Deforge, K., Koseff, J.R., and Thomas, F.I., "The coupling of hydrodynamics and nutrient exchange in natural seagrass canopies, Part I: flow conditions," AGU/ASLO/TOS/ERF Ocean Sciences Meeting, Orlando, Florida, March 2-7, 2008, Abstract ID:3065
- Aveni-Deforge, K., Weitzman, J.S., Koseff, J.R., and Thomas, F.I., "The coupling of hydrodynamics and nutrient exchange in natural seagrass canopies, Part II: canopy characteristics and nutrient uptake," AGU/ASLO/TOS/ERF Ocean Sciences Meeting, Orlando, Florida, March 2-7, 2008, Abstract ID:3107.
- Venayagamoorthy, S.K., Fringer, O.B., Koseff, J.R., and Naylor, R.L., "Simulations of Mixing and Transport of Dissolved Waste Discharged from a submerged aquaculture pen," *Eos Trans. AGU*, 88(23), Jt. Assem. Suppl., Abstract OS23G-02, 2007
- Gaylord, B.P., Rosman, J.H., Koseff, J.R., Reed, D., Largier, J., McDonald, C., MacIntyre, S., Monismith, S.G., Brzezinski, M., Arkema, K., Raimondi, P., and Mardian, B., "Spatial Patterns of Flow in and Around Giant Kelp Forests: Kelp Beds as Permeable Filters of Nearshore Waters", AGU/ASLO/TOS 2006 Ocean Sciences Meeting, Honolulu, Hawaii, OS12E-02, Feb 20-24, 2006.
- Rosman, J.H., Koseff, J.R., Monismith, S.G., Gaylord, B.P., and Grover, J., "Across-shore and Vertical Transport in a Giant Kelp Forest", AGU/ASLO/TOS 2006 Ocean Sciences Meeting, Honolulu, Hawaii, OS12E-04, Feb 20-24, 2006
- Troy, C.D., Hult, E.L., and Koseff, J.R., "Scalar microstructure associated with breaking internal waves over topographic ridges", AGU/ASLO/TOS 2006 Ocean Sciences Meeting, Honolulu, Hawaii, OS14J-03, Feb 20-24, 2006
- Hult, E.L., Troy, C.D., and Koseff, J.R., "Breaking Classification for Internal Waves Over Topographic Features", AGU/ASLO/TOS 2006 Ocean Sciences Meeting, Honolulu, Hawaii, OS15A-16, Feb 20-24, 2006

- Reidenbach, M. A., Koehl, M.A., and Koseff, J.R., "The Effect of Localized Shear and Fine-Scale Turbulent Mixing on Larval Settlement in Coral Reefs", AGU/ASLO/TOS 2006 Ocean Sciences Meeting, Honolulu, Hawaii, OS15L-02, Feb 20-24, 2006
- Warren, J., Boehm, A.B., Fringer, O., and Koseff, J.R., "Recreational Beach Visitor Perceptions of Health Risk and Impact of Water-Borne Pathogens in Orange County, CA", AGU/ASLO/TOS 2006 Ocean Sciences Meeting, Honolulu, Hawaii, OS25M-04, Feb 20-24, 2006
- Jones, N.L., Monismith, S.G., Thompson, J.K., and Koseff, J.R., "Observations of wave-current interactions in a shallow estuarine embayment", AGU/ASLO/TOS 2006 Ocean Sciences Meeting, Honolulu, Hawaii, OS46H-17, Feb 20-24, 2006
- Lowe, R.J., Koseff, J.R., Monismith, S.G., and Falter, J. L., "Wave Driven flow and mass transfer through coral reef canopies," ASLO 2005 Aquatic Sciences Meeting, Salt Lake City, Utah, Feb 20-25, 2005
- Koseff, J.R., Reidenbach, M.A., and Monismith, S.G., "The effect of wave action on mixing and mass transfer in coral communities," ASLO 2005 Aquatic Sciences Meeting, Salt Lake City, Utah, Feb 20-25, 2005
- Reidenbach, M.A., Koseff, J.R., Monismith, S.G., Genin, A., Dunbar, R., and Zerbe, L., "Interaction between CO₂, calcification and hydrodynamics on coral reefs," ASLO 2005 Aquatic Sciences Meeting, Salt Lake City, Utah, Feb 20-25, 2005
- Genin, A., Monismith, S.G., Yahel, G., Reidenbach, M.A.R, and Koseff, J.R., "Intense phytoplankton growth in coral reefs sustained by strong turbulence over rough bottom topography," Abstract Book of the 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii, February 15-20, 2004, p. 56.
- Koehl, M.A.R., Koseff, J.R, Reidenbach, M.A., Strother, J.A., Crimaldi, J.P., Wiley, M.B., and Hadfield, M.G., "How animals of different sizes encounter chemical cues in turbulent ambient water flow," Abstract Book of the 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii, February 15-20, 2004, p. 82.
- Koseff, J.R., Lucas, L.V., Cloern, J.E., Monismith, S.G., and Thompson, J.K., "Modeling and field observations of algal blooms in South San Francisco Bay, 1: Philosophy and Initial Approaches," Abstract Book of the 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii, February 15-20, 2004, p. 83.
- May, C.L., Koseff, J.R., Lucas, L.V., Cloern, J.E., and Schoellhammer, D.H., "Modeling and field observations of algal blooms in South San Francisco Bay, 2: Spatial and Temporal variability in light," Abstract Book of the 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii, February 15-20, 2004, p. 103.
- Lucas, L.V., Koseff, J.R., Cloern, J.E., Monismith, S.G., and Thompson, J.K., "Modeling and field observations of algal blooms in South San Francisco Bay, 3: Intratidal Physical Processes," Abstract Book of the 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii, February 15-20, 2004, p. 96.
- Reidenbach, M.A.R, Koseff, J.R., Genin, A., and Monismith, "The effect of coral morphology and flow on mass transfer in coral communities," Abstract Book of the 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii, February 15-20, 2004, p. 129.
- Shih, L.H., Koseff, J.R., Ivey, G.N., and Ferziger, J.H., "Parameterizing turbulent diffusivity using homogeneous shear flow simulations and laboratory data," Abstract Book of the 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii, February 15-20, 2004, p. 145.

- Strother, J.A., Koehl, M.A.R., Reidenbach, M.A., Koseff, J.R., and Hadfield, M.G., "Effects of turbulence and behavior on larval settlement in wave-driven flow," Abstract Book of the 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii, February 15-20, 2004, p. 155.
- Thompson, J.K., Koseff, J.R., Monismith, S.G., and Lucas, L.V., "Modeling and field observations of algal blooms in South San Francisco Bay, 4: Integration of Numerical Models and Field Observations," Abstract Book of the 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii, February 15-20, 2004, p. 160.
- Wiley, M.B., Koseff, J.R., Mead, K.S., and Koehl, M.A.R., "The effects of oscillatory motion on chemical plumes and how stomatopods use these plumes to find the chemical's source" Abstract Book of the 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii, February 15-20, 2004, p. 173.
- Mead, K.S., Wiley, M.B., Koehl, M.A.R., and Koseff, J.R., "Visualizing the small-scale distribution of odors encountered by olfactory antennules of benthic crustaceans in turbulent, wave-driven flows," Abstract Book of the 2004 ASLO/TOS Ocean Research Conference, Honolulu, Hawaii, February 15-20, 2004, p. 150.
- Reidenbach, M.A., Koseff, J.R., Monismith, S.G., Yahel, G., and Genin, A., "Turbulence and Mixing in the bottom boundary layers of coral reefs," 12th AGU Ocean Sciences Meeting, Portland, Oregon, January 26-30, 2004
- Lowe, R. J., Falter, J. L., Bandet, M. D., Pawlak, G., Monismith, S.G., Koseff, J.R., and Atkinson, M.J., "Wave transformation and circulation on a barrier reef in Kaneohe Bay, Oahu, Hawaii," 12th AGU Ocean Sciences Meeting, Portland, Oregon, January 26-30, 2004
- Rosman, J., Koseff, J.R., Monismith, S.G., Storlazzi, C., Shaw, W., and Gaylord, B., "The nature of flow in and around Giant kelp forests," 12th AGU Ocean Sciences Meeting, Portland, Oregon, January 26-30, 2004
- Strother, J.A., Koehl, M.A.R., Reidenbach, M.A., Hadfield, M.G., and Koseff, J.R., "Which aspects of the response of marine larvae to dissolved chemical cues affects their settlement in turbulent, wave-driven flow?", Proceedings of The Society for Integrative and Comparative Biology 2004 Meeting, New Orleans, LA., January 5-9, 2004.
- Koehl, M.A.R., Koseff, J.R., Crimaldi, J.P., and Wiley, M.B., "Hydrodynamics of Sniffing by Lobsters", Proceedings of The Society for Integrative and Comparative Biology 2004 Meeting, New Orleans, LA., January 5-9, 2004.
- May, C.L., Koseff, J.R., Lucas, L.V., and Cloern, J.E., "Modeling phytoplankton blooms in shallow turbid estuaries: a generic study", Proceedings of the 8th International Conference on Estuarine and Coastal Modeling, Monterey, CA., November 3, 2003.
- Koseff, J.R., "Beyond the Reynolds Number: Bridging the Spatial and Temporal Gap between Physical and Biological Processes using Time-Scales and Dimensionless Numbers", Estuarine Research Federation, Seattle, Washington, September 16, 2003 (invited).
- Troy, C.D., and Koseff, J.R., "The mixing of breaking internal waves", 2002 AGU Fall Meeting, Paper OS52D-0253, San Francisco, CA, Dec 6-10, 2002.
- Reidenbach, M.A., Koseff, J.R., Monismith, S.G., Genin, A., and Yahel, G., "Shear stress and turbulent mixing in the bottom boundary layer over a fringing coral reef", 2002 AGU Fall Meeting, Paper OS71A-0265, San Francisco, CA, Dec 6-10, 2002.

- Fringer, O.B., Troy, C.D., Street, R.L., and Koseff, J.R., "Laboratory and Numerical Experiments on Breaking Interfacial Waves," 2002 Ocean Sciences Meeting, Paper Number OS41E-68, Honolulu, Hawaii, Feb 11-15, 2002.
- Koehl, M.A., Hadfield, M.D., Reidenbach, M.A., and Koseff, J.R., "Behavioral Responses to Instantaneous Patterns of Water-Borne Chemical Cues Encountered by Microscopic Larvae in Turbulent Wave-Driven Flow Affect Larval Settlement," 2002 Ocean Sciences Meeting, Paper Number OS32N-06, Honolulu, Hawaii, Feb 11-15, 2002.
- Crimaldi, J.P., Koseff, J.R., and Koehl, M.A.R., "Size does matter: The effect of sensor morphology and kinematics on perception," Making Connections in the 21st Century, 2001 ASLO Aquatic Sciences Meeting, Albuquerque, New Mexico, February 12-16, 2001, p. 40.
- Wiley, M.B., Mead, K.S, Koseff, J.R., and Koehl, M.A.R., "How do benthic crustaceans find odor sources in waves? Integrating animal behavior and fluid mechanics," Making Connections in the 21st Century, 2001 ASLO Aquatic Sciences Meeting, Albuquerque, New Mexico, February 12-16, 2001, p. 96.
- Monismith, S.G., Reidenbach, M.A., Genin, A., and Koseff, J.R., "The role of thermal cycling in supplying nutrients to coral reefs," Making Connections in the 21st Century, 2001 ASLO Aquatic Sciences Meeting, Albuquerque, New Mexico, February 12-16, 2001, p. 100.
- Reidenbach, M.A., Koseff, J.R., and Koehl, M.A.R., "A Laboratory Study of Fine-Scale Mixing and Mass Transport Above a Coral Reef," Proceedings of 9th International Coral Reef Symposium, Bali, Indonesia, October 23-27, 2000.
- Monismith, S.G., Reidenbach, M.A., Koseff, J.R., Genin, A. "Boundary Layer Mixing and Circulation over Rough Topography: Flow over Coral Reefs," Proceedings of 9th International Coral Reef Symposium, Bali, Indonesia, October 23-27, 2000.
- Koehl, M.A.R., M. G. Hadfield, M.G., Cooper, T., Reidenbach, M.A., and Koseff, J.R., "Can Larvae of Benthic Animals Use Dissolved Chemical Cues in Wave-Driven Flow?" American Zoologist, V40 (#6), 2000, p. 1089.
- Horner, A., Fong, D., Koseff, J.R., Maxworthy, T., and Monismith, S.G., "The Control of Coastal Current Transport," Proceedings of 5th International Symposium on Stratified Flows, University of British Columbia, Vancouver, Canada, July 10-13, 2000, pp. 865-870.
- Troy, C., Koseff, J.R., and Rehmann, C.R., "A Laboratory Investigation of Breaking Internal Waves," Proceedings of 5th International Symposium on Stratified Flows, University of British Columbia, Vancouver, Canada, July 10-13, 2000.
- Zhou, H., Monismith, S.G., Ferziger, J.H., and Koseff, J.R., Numerical Simulations of Langmuir Circulation in a Wavy Domain, AGU Ocean Science meeting, January 24-28, 2000, San Antonio, Texas.
- Lucas, L.V., Cloern, J.E., Koseff, J.R., and Monismith, S.G., "A 'Building-Block' Approach to Models of Transport, Phytoplankton, and Nutrient Dynamics in Estuaries." 15th Biennial International Conference of the Estuarine Research Federation, Sept. 25-30, p. 64, 1999.
- Thompson, J.K., O'Riordan, C.A., Koseff, J.R. and Monismith, S.G., "Concentration Boundary Layers Over Infaunal Bivalves: Predictive Relationships Developed Through Laboratory and Field Studies." 15th Biennial International Conference of the Estuarine Research Federation, Sept. 25-30, p. 104, 1999.
- Lucas, L.V., Cloern, J.E., Koseff, J.R., and Monismith, S.G., "Physical Influences on Bloom Development in Shallow Tidal Systems: What Time Scales are Important?" Limnology and

- Oceanography: Navigating into the Next Century, ASLO Meeting, Santa Fe, New Mexico, February 1-5, 1999, p. 112.
- Crimaldi, J.P., Wiley, M.B., and Koseff, J.R., "Design and Quantification of a Laboratory Odor Plume for Use in Biological Studies of Chemical Sensing and Tracking Algorithms," *Limnology and Oceanography: Navigating into the Next Century, ASLO Meeting, Santa Fe, New Mexico, February 1-5, 1999*, p. 51.
- Zhou, H., Monismith, S.G., Ferziger, J.H., and Koseff, J.R., "Numerical Simulation of Langmuir Circulation and Its Comparison with the Craik-Leibovich Theory," *APS Fluid Dynamics Division Meeting, LC.02, Philadelphia, November 22-25, 1998*.
- Shih, L., Koseff, J.R., Ferziger, J.H., and Rehmann, C.R., "Scaling of Homogeneous Sheared Stratified Turbulence," *APS Fluid Dynamics Division Meeting, DG.03, Philadelphia, November 22-25, 1998*.
- Troy, C.D., Koseff, J.R., and Rehmann, C.R., "Experiments on Breaking Internal Waves at a Sharp Density Interface," *1998 Ocean Sciences Meeting, Paper OS42E-02, Feb. 8-12, 1998*.
- Powell, T.M., Stacey, M.T., Cowen, E.A., Dobbins, L., Monismith, S.G., and Koseff, J.R., "Plume Dispersion Modeling in Coastal Waters," *1998 Ocean Sciences Meeting, Paper OS12N-04, Feb. 8-12, 1998*.
- Cowen, E.A., Stacey, M.T., Dobbins, L., Monismith, S.G., Powell, T.M., and Koseff, J.R., "Plume Measurements in Shallow Coastal Waters at Scales of Several Hundred Meters," *1998 Ocean Sciences Meeting, Paper OS22N-05, Feb 8-12, 1998*.
- Stacey, M.T., Cowen, E.A., Dobbins, L., Monismith, S.G., Powell, T.M., and Koseff, J.R., "Identification of Plume Source Location in Coastal Waters," *Proceedings of 12th Engineering Mechanics Conference, ASCE, May 17-20, San Diego, CA., pp. 1669-1672, 1998*.
- Crimaldi, J.P., and Koseff, J.R., "Nonintrusive Measurements of Turbulent Scalar Fluxes Using a Combined LDA/LIF Probe," *Proceedings of 12th Engineering Mechanics Conference, ASCE, May 17-20, San Diego, CA., pp. 1836-1839, 1998*.
- Lucas, L.V., Thompson, J.K., Koseff, J.R., Monismith, S.G., and Cloern, J.E., "Modeling the Interaction of Horizontal Transport and Horizontal Variability in Phytoplankton Population Growth in a Shallow Estuary," *14th Biennial Estuarine Research Federation International Conference, Providence, Rhode Island, October 12-16, 1997*.
- Crimaldi, J.P., and Koseff, J.R., "Turbulent Scalar Flux Measurements over Model Bivalves," *Proceedings of 27th IAHR Congress, San Francisco, California, Aug 10-15, 1997*, p. 161.
- Piccirillo, P., Street, R.L., and Koseff, J.R., "Using Wavelets for Study Mixing in a Stably Stratified Turbulent Flow," *12th Symposium on Boundary Layers and Turbulence, Vancouver, Canada, Paper 9.4, July 29, 1997*.
- Rehmann, C.R., and Koseff, J.R., "Effects of Molecular Diffusivity on Mixing in a Stratified Fluid: Experiment and Time Scale Analysis," *12th Symposium on Boundary Layers and Turbulence, Vancouver, Canada, Paper 6.13, July 29, 1997*.
- Thompson, J.K., Lucas, L.V., Koseff, J.R., Monismith, S.G., "The Relative Importance of Benthic Grazing Rates and Hydrodynamics on Phytoplankton Dynamics in San Francisco Bay, CA," *25th Annual Benthic Ecology Meeting, April 3-6, 1997, Portland, ME, p.92*.
- Crimaldi, J.P.; Thompson, J.K.; Koseff, J.R.; Monismith, S.G., "The Role of Hydrodynamics in the Recruitment of Benthic Fauna," *25th Annual Benthic Ecology Meeting, April 3-6, 1997, Portland, ME, p. 33*.

- Lin, C-L., Koseff, J. R., Ferziger, J. H., and Monismith, S. G., "A Study of Internal Wave Energy Transfer Using Direct Numerical Simulation," 1996 Ocean Sciences Meeting, Paper OS51H-09, EOS, Vol. 76 No. 3, January 16, 1996, p. 206.
- Rehmann, C.E. and Koseff, J. R., "Effects of Stratification on the Mixing Efficiency of Decaying Turbulence," 1996 Ocean Sciences Meeting, Paper OS41E-03, EOS, Vol. 76 No. 3, January 16, 1996, p. 150.
- Lucas, L. V., Thompson, J. K., Koseff, J. R., Monismith, S. G., and Cloern, J. E., "Numerical Modeling of Coupled Hydrodynamics and Phytoplankton Dynamics in Shallow Estuaries," 1996 Ocean Sciences Meeting, Paper OS32J-10, EOS, Vol. 76 No. 3, January 16, 1996, p. 133.
- Crimaldi, J.P., Thompson, J. K., Koseff, J. R., and Monismith, S. G., "Hydrodynamics of Recruitment in Benthic Fauna," 1996 Ocean Sciences Meeting, Paper OS22K-06, EOS, Vol. 76 No. 3, January 16, 1996, p. 88.
- Thompson, J.K., Lucas, L.V., Koseff, J. R., and Monismith, S. G., "The Effect of Benthic Grazing on Phytoplankton Bloom Development in San Francisco Bay, California: How Benthic Community Spatial Scales Can Affect Estimates of Benthic Grazing Rates," 1996 Ocean Sciences Meeting, Paper OS21L-07, EOS, Vol. 76 No. 3, January 16, 1996, p 67.
- Garg, R. P., Ferziger, J. H., Monismith, S. G., and Koseff, J. R., "Numerical Studies of Stably Stratified Channel Flows," 1996 Ocean Sciences Meeting, Paper OS11J-02, EOS, Vol. 76 No. 3, January 16, 1996, p. 16.
- Briggs, D., Koseff, J.R., Ferziger, J., Monismith, S., "Turbulent Entrainment in a Stably Stratified, Shear-Free Mixing Layer," 1996 Ocean Sciences Meeting, Paper OS41E-4, EOS, Vol. 76 No. 3, January 16, 1996, p. 150.
- Lucas, L.V., Thompson, J.K, Koseff, J.R., and Monismith, S.G., "Numerical Modeling of Coupled Hydrodynamics and Phytoplankton Dynamics in Shallow Estuaries," presented at 13th Biennial International Conference of the Estuarine Research Foundation, Corpus Christi, November 12-16, 1995. (See p.80 of Abstracts)
- Thompson, J.K, Lucas, L.V., and Koseff, J.R, "Benthic Grazing by Bivalves as a Control on South San Francisco Bay, Ca (U.S.A) Phytoplankton Biomass: Field Observations in Support of a Numerical Model," presented at 13th Biennial International Conference of the Estuarine Research Foundation, Corpus Christi, November 12-16, 1995. (See p.133 of Abstracts)
- Lin, C-L., Koseff, J.R., Ferziger, J.H., and Monismith, S.G., "Direct Numerical Simulation of Wave-Mean Flow and Wave-Wave Interactions: A Brief Perspective," IUTAM Conference on Physical Limnology, Broome, Western Australia, Sept 9-14, 1995.
- Ivey, G.N., Imberger, J., and Koseff, J.R., "Buoyancy Fluxes in a Stratified Fluid," IUTAM Conference on Physical Limnology, Broome, Western Australia, Sept 9-14, 1995.
- Lucas, L.V., J.K. Thompson, J.R. Koseff, and S.G. Monismith. "To Bloom, or Not to Bloom? A Happy Marriage between Numerical Modeling and Field Work." March 1995. Biological Fluid Mechanics Workshop, Hopkins Marine Station, Monterey, California.
- Rehmann, C.R., and Koseff, J.R., "Mixing Efficiency of Decaying Grid Turbulence in a Stratified Fluid," Proceedings of the Fourth International Symposium on Stratified Flows, Grenoble, France, June 29 - July 2, 1994, Vol. 2, Paper No. 119.

- Briggs, D. A., Ferziger, J. H., Koseff, J. R., and Monismith, S. G., "Entrainment in a Turbulent Mixing Layer," AGARD Conference Proceedings, Application of Direct and Large Eddy Simulation to Transition and Turbulence, April 18-21, 1994.
- Rehmann, C.R., and Koseff, J.R., 1994, "Towed Grid Experiments on Mixing in a Stratified Flow," 1994 Ocean Sciences Meeting, Paper O31I-4, EOS, Vol 75, Jan. 18, 1994, p. 118.
- Briggs, D. A., Ferziger, J. H. and Koseff, J. R., 1994, "Entrainment in a Turbulent Mixing Layer," 1994 Ocean Sciences Meeting, Paper O22N-10, EOS, Vol. 75, Jan 18., 1994, p. 101.
- Briggs, D. A., Ferziger, J. H. and Koseff, J. R., 1993, "Entrainment in a Turbulent Mixing Layer," presented at the 46th annual meeting of the American Physical Society, Division of Fluid Dynamics, November 21-23, Albuquerque, New Mexico, Paper No. DC-8.
- O'Riordan, C.A., Monismith, S.G., and Koseff, J.R., "An Experimental Study of Bivalve Siphonal Jets in a Turbulent Boundary Layer Crossflow," Hydraulic Engineering '93, Vol. 1, ASCE, 1993, pp. 1007-1012.
- Vidergar, L.L, Koseff, J.R., and Monismith, S.G., "Numerical Models of Phytoplankton Dynamics for Shallow Estuaries," Hydraulic Engineering '93, Vol. 1, ASCE, 1993, pp. 1025-1030.
- Zang, Y., Street, R.L., and Koseff, J.R., "Structure of Coastal Upwelling on a Sloping Bottom," Hydraulic Engineering '93, Vol. 2., ASCE, 1993, pp. 2184-2189.
- Bureau J., Koseff, J.R., and Monismith, S.G., "Comparison of Advective Transport Algorithms with an Application in Suisun Bay, a Sub-Embayment of San Francisco Bay, California," Hydraulic Engineering '93, Vol. 2, ASCE, 1993, pp. 1628-1634.
- Koseff, J.R., Monismith, S.G., Vidergar, L.L., Holen, J.K., and Cloern, J.E., "The Effects of Vertical Mixing, Benthic Grazing, and Lateral Exchange on Estuarine Phytoplankton Dynamics," presented at ASLO 1993 Annual Meeting, Edmonton, Canada, June 1993.
- O'Riordan, C.A., Monismith, S.G., and Koseff, J.R., "An Experimental Study of Siphonal Jets in a Turbulent Boundary Layer Crossflow," Presented at the 72nd AGARD Fluid Dynamics Symposium, Winchester, UK, 1993, pp. 14.1-14.11.
- Zang, Y., Street, R.L., and Koseff, J.R., "Application of Subgrid-Scale Model to Turbulent Recirculating Flows," Center for Turbulence Research, *Annual Research Briefs - 1992*, 1993, pp. 85-95.
- Ivey, G., Koseff, J.R., Briggs, D.A., Ferziger, J.H., "Mixing in a Stratified Shear Flow: Energetics and Sampling," Center for Turbulence Research, *Annual Research Briefs - 1992*, 1993, pp. 335-344.
- Koseff, J.R., Itsweire, E.C., Ferziger, J.H., and Briggs, D.A., "Direct Simulation of Stably-Stratified Sheared Turbulence: Implications for Interpreting Mixing in the Ocean," presented at the Fall Meeting of the American Geophysical Union, San Francisco, CA, EOS, 73, No. 43, p. 320, 1992.
- Thomas McDonald, E., and Koseff, J.R., "On Self-Propagation of Thermohaline Intrusions," presented at the Tenth Symposium on Energy Engineering Sciences, Argonne National Laboratory, Argonne, IL, May 11-13, 1992, pp. 60-67.
- Monismith, S.G., Koseff, J.R., Holen, J.K., Cloern, J.E., and O'Riordan, C.A., "Hydrodynamic Influences on Benthic Grazing of Estuarine Phytoplankton," presented (invited) at ASLO 1992 Aquatic Sciences Meeting, Santa Fe, New Mexico, Feb. 1992.
- O'Riordan, C.A., Monismith, S.G., and Koseff, J.R., "A Study of Concentration Boundary Layer Formation over a Bed of Model Siphonate Bivalves," presented at ASLO 1992 Aquatic Sciences Meeting, Santa Fe, New Mexico, Feb. 1992.

- Thomas McDonald, E., and Koseff, J.R., "The Structure of Lateral Intrusions in a Two Component Continuously Stratified Heat/Salt System," presented at the AGU Ocean Sciences Meeting, Paper No. 011B-11, New Orleans, LA, 1992.
- Koseff, J.R., "Hydrodynamics of Benthic-Bivalve Feeding," presented at the State of the Estuary Conference, Oakland, CA, 30 May 1991. [Abstract, *State of the Estuary Conference*, p. 22]
- Lin, C.-L., Ferziger, J.H., Koseff, J.R., and Monismith, S.G., "Numerical Study of the Critical Layer Process," presented at the Forty Fourth Meeting of the American Physical Society, Division of Fluid Dynamics, Phoenix, AZ, Feb. 24-26, 1991.
- O'Riordan, C.A., Monismith, S.G., and Koseff, J.R., "An Experimental Study of the Behavior of Bivalve Siphonal Currents in the Boundary Layer Flows," presented at the 11th Biennial International Estuarine Research Conference, San Francisco, CA, November 10-14, 1991.
- O'Riordan, C.A., Monismith, S.G. and Koseff, J. R., "Flume Modeling of Bivalve Siphonal Currents in Boundary Layer Flows," *EOS*, 71, No. 43, p. 1359, 1990.
- Koseff, J.R., Holt, S.E., Itsweire, E.C. and Ferziger, J.H., "Direct Simulation of Stably-Stratified Sheared Turbulence," *EOS*, 71, No. 43, p. 1360, 1990.
- Schladow, S.G., Thomas, E., and Koseff, J.R., "Structure of Thermohaline Intrusions--A Comparison of Numerical and Experimental Results," *EOS*, 71, No. 43, p. 1360, 1990.
- Itsweire, E.C., Holt, S.E., Koseff, J.R., and Ferziger, J.H., "Direct Numerical Simulations of Stably-Stratified Sheared Turbulence: Implications for Oceanic Mixing," *Proc. of the 1990 Summer Program*, Center for Turbulence Research, NASA Ames-Stanford University, pp.163-180.
- O'Riordan, C.A., Koseff, J.R., and Monismith, S.G., "Hydraulic Modeling of Benthic Suspension Feeding Bivalves in Shallow Estuaries," *Proc. of Int'l Conf. on Physical Modeling of Transport and Dispersion*, Mass. Inst. Tech., Aug 7-10, 1990, pp. 6A.19-24.
- Thomas, E., Schladow, S.G., and Koseff, J.R., "Thermohaline Intrusions in a Two Component Density Stratified System," *Proc. of Int'l Conf. on Physical Modeling of Transport and Dispersion*, Mass. Inst. Tech., Aug 7-10, 1990, pp. 8C.7-12.
- Koseff, J.R., O'Riordan, C., and Monismith, S.G., "Some Effects of Boundary Layer Flows on Bivalve Siphon Currents," presented at the AGU Ocean Sciences Meeting, Paper No. 0531C-11, New Orleans, LA, 1990.
- Thomas, E., Schladow, S.G., and Koseff, J.R., "Thermohaline Intrusions in a Two-Component, Density Stratified System," AGU Fall Meeting, Paper No. 051A-11, San Francisco, CA, 1989, p. 1167.
- Thomas, E., Schladow, S.G., and Koseff, J.R., "The Formation of Lateral Intrusions in a Thermohaline Stratification," *Proc. Seventh Symposium on Energy Engineering Sciences*, Argonne National Laboratory, June 19-21, 1989, pp. 137-144.
- Koseff, J.R., Monismith, S.G., and Nepf, H.M., "A Model Study of Bivalve Currents," AGU Fall Meeting Paper No. AS12B-68, San Francisco, CA, 1988, p. 1087.
- Thomas, E., Schladow, S.G., and Koseff, J.R., "An Experimental Study of Convective Intrusions in a Two-Component, Density Stratified System," AGU Fall Meeting Paper No. O41B-10, San Francisco, CA, 1988, p. 1265.

Roberts, P V., and Koseff, J.R., "Research Directions in Physical Processes – Water," Proceedings of the Association of Environmental Engineering Professors, *Conference on Fundamental Research Directions in Environmental Engineering*, Washington, D.C., Nov. 13-15, 1988.

Koseff, J.R., and Katz, G., "The Use of Personal Computers in Civil Engineering Education," *Proc. IBM ACIS University Conference*, Boston, Mass., June 27-30, 1987, pp. 274-283.

Koseff, J.R., Street, R.L., Freitas, C.J., and Rhee, H., "An Examination of Mixed and Natural Convection in a Cavity," *Proc. Third Symposium on Energy Engineering Sciences*, Penn State University, Oct. 8-10, pp. 75-83, 1985.

Koseff, J.R., Rhee, H., and Street, R.L., "Flow Visualization and Heat Flux Measurements in a Three-Dimensional Recirculating Flow," *Proc. of Symp. on Nonlinear Problems in Energy Engineering*, Argonne National Laboratory, Argonne, IL, April 26-28, pp. 90-95, 1983.