





## Jeffrey R. Koseff

William Alden Campbell and Martha Campbell Professor in the School of Engineering and Senior Fellow at the Woods Institute for the Environment

Civil and Environmental Engineering

 Curriculum Vitae available Online

 Resume available Online

### CONTACT INFORMATION

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### Bio

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#### BIO

Jeff Koseff, founding co-director of the Stanford Woods Institute for the Environment, is an expert in the interdisciplinary domain of environmental fluid mechanics. His research falls in the interdisciplinary domain of environmental fluid mechanics and focuses on the interaction between physical and biological systems in natural aquatic environments. Current research activities are in the general area of environmental fluid mechanics and focus on: turbulence and internal wave dynamics in stratified flows, transport and mixing in estuarine systems, phytoplankton dynamics in estuarine systems, coral reef, sea-grass and kelp-forest hydrodynamics, and the role of natural systems in coastal protection. Most recently he has begun to focus on the interaction between gravity currents and breaking internal waves in the near-coastal environment, and the transport of marine microplastics. Koseff has served on the Board of Governors of The Israel Institute of Technology, and has been a member of the Visiting Committees of the Civil and Environmental Engineering department at Carnegie-Mellon University, The Iowa Institute of Hydraulic Research, and Cornell University. He has also been a member of review committees for the College of Engineering at the University of Michigan, The WHOI-MIT Joint Program, and the University of Minnesota Institute on the Environment. He is a former member of the Independent Science Board of the Bay/Delta Authority. He was elected a Fellow of the American Physical Society in 2015, and received the Richard Lyman Award from Stanford University in the same year.

#### ACADEMIC APPOINTMENTS

- Professor, Civil and Environmental Engineering
- Senior Fellow, Stanford Woods Institute for the Environment
- Member, Bio-X
- Affiliate, Precourt Institute for Energy
- Founding Perry L. McCarty Director, Stanford Woods Institute for the Environment

#### HONORS AND AWARDS

- Borland Lecturer in Hydraulics, Colorado State University (2018)
- Sustainable Stanford Award Winner, Stanford University (2017)
- Fellow, American Physical Society (2015)
- Richard W. Lyman Award, Stanford University (2015)

- Eugene L. Grant Award for Excellence in Undergraduate Teaching, Stanford University (2011)
- Teacher of the Year; Honorable Mention, Associated Students of Stanford University (2007)
- Bing Teaching Fellowship, Stanford University (1995-1998)
- Eugene L. Grant Award for Excellence in Undergraduate Teaching, Stanford University (1995)
- University Fellow, Stanford University (1994-1996)
- Lillian and Thomas B. Rhodes Award for Excellence in Undergraduate Teaching, Stanford University (1993)
- Outstanding Teaching Award, ASSU (1991-92)
- Gledden Visiting Senior Fellow, University of Western Australia (1991, 2003)
- Leavell Family Faculty Scholar, Stanford University School of Engineering (1989-92)
- Tau Beta Pi Award for Excellence in Undergraduate Teaching, Stanford University School of Engineering (1989)
- Award for Outstanding Service, American Society of Civil Engineers (1986-87)
- Robert T. Knapp Award, Fluids Engineering Division of the American Society of Mechanical Engineers (1985)

## **BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS**

- Member of Research Advisory Board, Resilient by Design (2017 - present)

## **PROFESSIONAL EDUCATION**

- PhD, Stanford University (1983)
- M.S., Stanford University (1978)
- B.Sc., University of the Witwatersrand (1976)

## **LINKS**

- Bob and Norma Street Environmental Fluid Mechanics Laboratory: <https://cee.stanford.edu/labs-centers/bob-and-norma-street-environmental-fluid-mechanics-laboratory-efml>
- Stanford Woods Institute for the Environment: <https://woods.stanford.edu/>

## **Teaching**

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### **COURSES**

#### **2018-19**

- Hard Earth: Stanford Graduate-Student Talks Exploring Tough Environmental Dilemmas: CEE 126X (Aut)
- Hard Earth: Stanford Graduate-Student Talks Exploring Tough Environmental Dilemmas: CEE 126Y (Win)
- Hard Earth: Stanford Graduate-Student Talks Exploring Tough Environmental Dilemmas: EARTH 126X (Aut)
- Hard Earth: Stanford Graduate-Student Talks Exploring Tough Environmental Dilemmas: EARTH 126Y (Win)
- Mechanics of Fluids: CEE 101B (Aut)
- Mechanics of Fluids: CEE 162A (Aut)
- Rivers, Streams, and Canals: CEE 162E, CEE 262E (Spr)

#### **2017-18**

- Rivers, Streams, and Canals: CEE 162E, CEE 262E (Spr)
- Sustainability Challenges and Transitions: THINK 40 (Aut)
- Transport and Mixing in Surface Water Flows: CEE 262B (Win)

#### **2016-17**

- Rivers, Streams, and Canals: CEE 162E, CEE 262E (Spr)
- Sustainability Challenges and Transitions: THINK 40 (Aut)
- Topics in Stratified Turbulence: CEE 363H (Win)

## STANFORD ADVISEES

### Doctoral Dissertation Reader (AC)

Valerie Troutman

### Master's Program Advisor

Claudia Aber, Margarita Dronov

## Publications

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### PUBLICATIONS

- **Direct Numerical Simulations of Stably-Stratified Sheared Turbulence: Implications for Oceanic Mixing**  
Itsweire, E., C, Holt, S., E., Koseff, J., R., Ferziger, J., H.
- **Large Eddy Simulation of Turbulent Cavity Flow Using a Dynamic Subgrid-Scale Model**  
Zang, Y., Street, R., L., Koseff, J., R.  
edited by Ragab, S., A., Piomelli, U.
- **Local versus volume-integrated turbulence and mixing in breaking internal waves on slopes** *JOURNAL OF FLUID MECHANICS*  
Arthur, R. S., Koseff, J. R., Fringer, O. B.  
2017; 815: 169-198
- **Low order physical models of vertical axis wind turbines** *JOURNAL OF RENEWABLE AND SUSTAINABLE ENERGY*  
Craig, A. E., Dabiri, J. O., Koseff, J. R.  
2017; 9 (1)
- **Flow Kinematics in Variable-Height Rotating Cylinder Arrays** *JOURNAL OF FLUIDS ENGINEERING-TRANSACTIONS OF THE ASME*  
Craig, A. E., Dabiri, J. O., Koseff, J. R.  
2016; 138 (11)
- **On the flux Richardson number in stably stratified turbulence** *JOURNAL OF FLUID MECHANICS*  
Venayagamoorthy, S. K., Koseff, J. R.  
2016; 798
- **On the flux Richardson number in stably stratified turbulence** *JOURNAL OF FLUID MECHANICS*  
Venayagamoorthy, S. K., Koseff, J. R.  
2016; 798
- **A Kinematic Description of the Key Flow Characteristics in an Array of Finite-Height Rotating Cylinders** *JOURNAL OF FLUIDS ENGINEERING-TRANSACTIONS OF THE ASME*  
Craig, A. E., Dabiri, J. O., Koseff, J. R.  
2016; 138 (7)
- **Characteristics of bolus formation and propagation from breaking internal waves on shelf slopes** *JOURNAL OF FLUID MECHANICS*  
Moore, C. D., Koseff, J. R., Hult, E. L.  
2016; 791: 260-283
- **Three-dimensional wave-coupled hydrodynamics modeling in South San Francisco Bay** *COMPUTERS & GEOSCIENCES*  
Chou, Y., Holleman, R. C., Fringer, O. B., Stacey, M. T., Monismith, S. G., Koseff, J. R.  
2015; 85: 10-21
- **The attenuation of current- and wave-driven flow within submerged multispecific vegetative canopies** *LIMNOLOGY AND OCEANOGRAPHY*  
Weitzman, J. S., Zeller, R. B., Thomas, F. I., Koseff, J. R.

2015; 60 (6): 1855-1874

- **A simple and practical model for combined wave-current canopy flows** *JOURNAL OF FLUID MECHANICS*  
Zeller, R. B., Zarama, F. J., Weitzman, J. S., Koseff, J. R.  
2015; 767: 842-880
- **On the use of refractive-index-matched hydrogel for fluid velocity measurement within and around geometrically complex solid obstructions** *EXPERIMENTS IN FLUIDS*  
Weitzman, J. S., Samuel, L. C., Craig, A. E., Zeller, R. B., Monismith, S. G., Koseff, J. R.  
2014; 55 (12)
- **Stratified turbulence in the nearshore coastal ocean: Dynamics and evolution in the presence of internal bores** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*  
Walter, R. K., Squibb, M. E., Woodson, C. B., Koseff, J. R., Monismith, S. G.  
2014; 119 (12): 8709-8730
- **Improved parameterization of seagrass blade dynamics and wave attenuation based on numerical and laboratory experiments** *LIMNOLOGY AND OCEANOGRAPHY*  
Zeller, R. B., Weitzman, J. S., Abbett, M. E., Zarama, F. J., Fringer, O. B., Koseff, J. R.  
2014; 59 (1): 251-266
- **High-resolution carbon budgets on a Palau back-reef modulated by interactions between hydrodynamics and reef metabolism** *LIMNOLOGY AND OCEANOGRAPHY*  
Teneva, L., Dunbar, R. B., Mucciarone, D. A., Dunckley, J. F., Koseff, J. R.  
2013; 58 (5): 1851-1870
- **Interaction of waves and currents with kelp forests (*Macrocystis pyrifera*): Insights from a dynamically scaled laboratory model** *LIMNOLOGY AND OCEANOGRAPHY*  
Rosman, J. H., Denny, M. W., Zeller, R. B., Monismith, S. G., Koseff, J. R.  
2013; 58 (3): 790-802
- **Uptake of dissolved inorganic nitrogen by shallow seagrass communities exposed to wave-driven unsteady flow** *MARINE ECOLOGY PROGRESS SERIES*  
Weitzman, J. S., Aveni-Deforge, K., Koseff, J. R., Thomas, F. I.  
2013; 475: 65-83
- **Interactions between a kelp forest (*Macrocystispyrifera*) and waves: Insights from a dynamically scaled laboratory model** *Limnology and Oceanography*  
Rosman, J., H., Denny, M., W., Zeller, R., Monismith, S., G., Koseff, J., R.  
2013; 3 (58): 790-802
- **Comparison of mixing efficiency and vertical diffusivity models from temperature microstructure** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*  
Dunckley, J. F., Koseff, J. R., Steinbuck, J. V., Monismith, S. G., Genin, A.  
2012; 117
- **A short-term in situ CO2 enrichment experiment on Heron Island (GBR)** *SCIENTIFIC REPORTS*  
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, et al  
2012; 2
- **Conditions for bolus formation from breaking internal waves on shelf slopes**  
Moore, C., D., Hult, E., L., Koseff, J., R.  
2012
- **Hydrodynamics of a Headland Kelp Forest**  
Alnajjar, M., W., Woodson, C., B., Monismith, S., G., Koseff, J., R., Genin, A., Litvin, S.  
2012
- **Modeling the Impact of Sea-Level Rise on Salinity Intrusion in San Francisco Bay**  
Chua, V., P., Fringer, O., B., Fong, D., A., Monismith, S., G., Koseff, J., R.  
2012
- **The fine-scale hydrodynamics of a sloping coral reef: Eilat Israel**  
Dunckley, J., F., Koseff, J., R., Genin, A., Monismith, S., G., Woodson, C., B., Lindemann, Y.

2012

- **Seagrass blade dynamics in unidirectional, oscillatory, and combined flows**  
Zeller, R., B., Weitzman, J., S., Abbett, M., E., Fringer, O., B., Koseff, J., R.  
2012
- **Horizontal dispersion of ocean tracers in internal wave shear** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*  
Steinbuck, J. V., Koseff, J. R., Genin, A., Stacey, M. T., Monismith, S. G.  
2011; 116
- **Numerical modeling of aquaculture dissolved waste transport in a coastal embayment** *ENVIRONMENTAL FLUID MECHANICS*  
Venayagamoorthy, S. K., Ku, H., Fringer, O. B., Chiu, A., Naylor, R. L., Koseff, J. R.  
2011; 11 (4): 329-352
- **The mixing efficiency of interfacial waves breaking at a ridge: 2. Local mixing processes** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*  
Hult, E. L., Troy, C. D., Koseff, J. R.  
2011; 116
- **The mixing efficiency of interfacial waves breaking at a ridge: 1. Overall mixing efficiency** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*  
Hult, E. L., Troy, C. D., Koseff, J. R.  
2011; 116
- **Currents and turbulence within a kelp forest (*Macrocystis pyrifera*): Insights from a dynamically scaled laboratory model** *LIMNOLOGY AND OCEANOGRAPHY*  
Rosman, J. H., Monismith, S. G., Denny, M. W., Koseff, J. R.  
2010; 55 (3): 1145-1158
- **Turbulent mixing in fine-scale phytoplankton layers: Observations and inferences of layer dynamics** *CONTINENTAL SHELF RESEARCH*  
Steinbuck, J. V., Genin, A., Monismith, S. G., Koseff, J. R., Holzman, R., Labiosa, R. G.  
2010; 30 (5): 442-455
- **Harmonic generation of interfacial waves at a submerged bathymetric ridge** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*  
Hult, E. L., Troy, C. D., Koseff, J. R.  
2010; 115
- **Wavy turbulence in Florida Bay seagrass canopies**  
Weitzman, J., S., Aveni-Deforge, K., Koseff, J., R., Thomas, F., I.  
2010
- **Spatial and Temporal Variability of Internal Wave Mixing at a Submerged Ridge**  
Hult, E., L., Troy, C., D., Koseff, J., K.  
2010
- **Evolution of a reef pass jet from microstructure profiles**  
Fleischfresser, J., D., Hench, J., L., Walter, L., M., Monismith, S., G., Koseff, J., R.  
2010
- **Horizontal dispersion of ocean tracers in internal wave shear**  
Steinbuck, J., V., Koseff, J., R., Genin, A., Stacey, M., T., Monismith, S., G.  
2010
- **The breaking of interfacial waves at a submerged bathymetric ridge** *JOURNAL OF FLUID MECHANICS*  
Hult, E. L., Troy, C. D., Koseff, J. R.  
2009; 637: 45-71
- **Intense benthic grazing of phytoplankton in a coral reef** *LIMNOLOGY AND OCEANOGRAPHY*  
Genin, A., Monismith, S. G., Reidenbach, M. A., Yahel, G., Koseff, J. R.  
2009; 54 (3): 938-951
- **Shallow water processes govern system-wide phytoplankton bloom dynamics: A modeling study** *JOURNAL OF MARINE SYSTEMS*  
Lucas, L. V., Koseff, J. R., Monismith, S. G., Thompson, J. K.

2009; 75 (1-2): 70-86

- **Hydrodynamic forces on larvae affect their settlement on coral reefs in turbulent, wave-driven flow** *LIMNOLOGY AND OCEANOGRAPHY*  
Reidenbach, M. A., Koseff, J. R., Koehl, M. A.  
2009; 54 (1): 318-330
- **Shallow water processes govern system-wide phytoplankton bloom dynamics: A field study** *JOURNAL OF MARINE SYSTEMS*  
Thompson, J. K., Koseff, J. R., Monismith, S. G., Lucas, L. V.  
2008; 74 (1-2): 153-166
- **Modeling flow in coral communities with and without waves: A synthesis of porous media and canopy flow approaches** *LIMNOLOGY AND OCEANOGRAPHY*  
Lowe, R. J., Shavit, U., Falter, J. L., Koseff, J. R., Monismith, S. G.  
2008; 53 (6): 2668-2680
- **Extracting Reynolds stresses from acoustic Doppler current profiler measurements in wave-dominated environments** *JOURNAL OF ATMOSPHERIC AND OCEANIC TECHNOLOGY*  
Rosman, J. H., Hench, J. L., Koseff, J. R., Monismith, S. G.  
2008; 25 (2): 286-306
- **Density stratification, turbulence, but how much mixing?** *ANNUAL REVIEW OF FLUID MECHANICS*  
Ivey, G. N., Winters, K. B., Koseff, J. R.  
2008; 40: 169-184
- **The coupling of hydrodynamics and nutrient exchange in natural seagrass canopies, Part I: flow conditions**  
Weitzman, J., S., Aveni-Deforge, K., Koseff, J., R., Thomas, F., I.  
2008
- **Flow development and turbulence generation within a kelp forest (*MacrosystisPyrifera*): lessons from a small scale laboratory model**  
Rosman, J., H., Koseff, J., R., Monismith, S., G.  
2008
- **The coupling of hydrodynamics and nutrient exchange in natural seagrass canopies, Part II: canopy characteristics and nutrient uptake**  
Aveni-Deforge, K., Weitzman, J., S., Koseff, J., R., Thomas, F., I.  
2008
- **In situ Lagrangian measurements of phytoplankton production and mortality: a net heterotrophic state of the upper oligotrophic water column**  
Genin, A., Koseff, J., R., Monismith, S., G., Steinbuck, J., V., Vaknin, R., Holtzman, R.  
2008
- **Modeling the effect of wind-waves on the evolution of marshplains and mudflats**  
Lee, S., Brennan, M., Crooks, S., Orr, M., Koseff, J., R., Monismith, S., G.  
2008
- **Observations of a planktonic layer in its physical environment**  
Steinbuck, J., V., Genin, A., Monismith, S., G., Koseff, J., R., Holtzman, R.  
2008
- **Simulations of Mixing and Transport of Dissolved Waste Discharged from near-coastal aquaculture pen**  
Venayagamoorthy, S., K., Fringer, O., B., Koseff, J., R., Naylor, R., L.  
2008
- **Wave instability criteria for interfacial waves breaking over a ridge**  
Hult, E., L., Troy, C., D., Koseff, J., R.  
2008
- **Spatial patterns of flow and their modification within and around a giant kelp forest** *LIMNOLOGY AND OCEANOGRAPHY*  
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, et al  
2007; 52 (5): 1838-1852

- **Laboratory experiments of fine-scale mixing and mass transport within a coral canopy** *PHYSICS OF FLUIDS*  
Reidenbach, M. A., Koseff, J. R., Monismith, S. G.  
2007; 19 (7)
- **Spectral wave flow attenuation within submerged canopies: Implications for wave energy dissipation** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*  
Lowe, R. J., Falter, J. L., Koseff, J. R., Monismith, S. G., Atkinson, M. J.  
2007; 112 (C5)
- **A field investigation into the effects of a kelp forest (*Macrocystis pyrifera*) on coastal hydrodynamics and transport** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*  
Rosman, J. H., Koseff, J. R., Monismith, S. G., Grover, J.  
2007; 112 (C2)
- **Individual-based model of larval transport to coral reefs in turbulent, wave-driven flow: behavioral responses to dissolved settlement inducer** *MARINE ECOLOGY PROGRESS SERIES*  
Koehl, M. A., Strother, J. A., Reidenbach, M. A., Koseff, J. R., Hadfield, M. G.  
2007; 335: 1-18
- **Richardson number measurements in breaking internal waves**  
Hult, E., L., Koseff, J., R., Troy, C., D.  
2007
- **Simulations of Mixing and Transport of Dissolved Waste Discharged from a submerged aquaculture pen**  
Venayagamoorthy, S., K., Fringer, O., B., Koseff, J., R., Naylor, R., L.  
2007
- **Structure of mass and momentum fields over a model aggregation of benthic filter feeders** *BIOGEOSCIENCES*  
Crimaldi, J. P., Koseff, J. R., Monismith, S. G.  
2007; 4 (3): 269-282
- **Effects of nonlocal turbulence on the mass transfer of dissolved species to reef corals** *LIMNOLOGY AND OCEANOGRAPHY*  
Falter, J. L., Atkinson, M. J., Lowe, R. J., Monismith, S. G., Koseff, J. R.  
2007; 52 (1): 274-285
- **Structure of turbulent plumes from a momentumless source in a smooth bed** *ENVIRONMENTAL FLUID MECHANICS*  
Crimaldi, J. P., Koseff, J. R.  
2006; 6 (6): 573-592
- **The effects of coral morphology and ambient flow on mass transfer in coral communities**  
Reidenbach, M. A., Koehl, M. A., Genin, A., Monismith, S. G., Koseff, J. R.  
OXFORD UNIV PRESS INC.2006: E115-E115
- **A mixing-length formulation for the turbulent Prandtl number in wall-bounded flows with bed roughness and elevated scalar sources** *PHYSICS OF FLUIDS*  
Crimaldi, J. P., Koseff, J. R., Monismith, S. G.  
2006; 18 (9)
- **Boundary layer turbulence and flow structure over a fringing coral reef** *LIMNOLOGY AND OCEANOGRAPHY*  
Reidenbach, M. A., Monismith, S. G., Koseff, J. R., Yahel, G., Genin, A.  
2006; 51 (5): 1956-1968
- **Laboratory images of breaking internal waves** *PHYSICS OF FLUIDS*  
Hult, E. L., Troy, C. D., Koseff, J. R.  
2006; 18 (9)
- **Thermally driven exchanges between a coral reef and the adjoining ocean** *JOURNAL OF PHYSICAL OCEANOGRAPHY*  
Monismith, S. G., Genin, A., Reidenbach, M. A., Yahel, G., Koseff, J. R.  
2006; 36 (7): 1332-1347
- **Effects of the depth to coral height ratio on drag coefficients for unidirectional flow over coral** *LIMNOLOGY AND OCEANOGRAPHY*

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- McDonald, C. B., Koseff, J. R., Monismith, S. G.  
2006; 51 (3): 1294-1301
- **A novel flume for simulating the effects of wave- and tide-driven water motion on the biogeochemistry of benthic reef communities** *LIMNOLOGY AND OCEANOGRAPHY-METHODS*  
Falter, J. L., Atkinson, M. J., Fleming, J. H., Bos, M. M., Lowe, R. J., Koseff, J. R., Monismith, S. G.  
2006; 4: 68-79
  - **The effects of waves and morphology on mass transfer within branched reef corals** *LIMNOLOGY AND OCEANOGRAPHY*  
Reidenbach, M. A., Koseff, J. R., Monismith, S. G., Steinbuck, J. V., Genin, A.  
2006; 51 (2): 1134-1141
  - **The viscous decay of progressive interfacial waves** *PHYSICS OF FLUIDS*  
Troy, C. D., Koseff, J. R.  
2006; 18 (2)
  - **A new mesocosm for simulating the effects of wave-driven water motion on the biogeochemistry of benthic reef communities** *Limnology and Oceanography: Methods*  
Falter, J., L., Atkinson, M., J., Fleming, J., H., Bos, M., Lowe, R., J., Koseff, J., R.  
2006; 4: 68-79
  - **Spatial Patterns of Flow in and Around Giant Kelp Forests: Kelp Beds as Permeable Filters of Nearshore Waters**  
Gaylord, B., P., Rosman, J., H., Koseff, J., R., Reed, D., Largier, J., McDonald, C.  
2006
  - **Laboratory Investigation of Progressive Internal Wave Interactions with Topography**  
Hult, E., L., Troy, C., D., Koseff, J., K.  
2006
  - **The Effect of Localized Shear and Fine-Scale Turbulent Mixing on Larval Settlement in Coral Reefs**  
Reidenbach, M., A., Koehl, M., A., Koseff, J., R.  
2006
  - **Breaking Classification for Internal Waves Over Topographic Features**  
Hult, E., L., Troy, C., D., Koseff, J., R.  
2006
  - **Across-shore and Vertical Transport in a Giant Kelp Forest**  
Rosman, J., H., Koseff, J., R., Monismith, S., G., Gaylord, B., P., Grover, J.  
2006
  - **Observations of wave-current interactions in a shallow estuarine embayment**  
Jones, N., L., Monismith, S., G., Thompson, J., K., Koseff, J., R.  
2006
  - **Recreational Beach Visitor Perceptions of Health Risk and Impact of Water-Borne Pathogens in Orange County, CA**  
Warren, J., Boehm, A., B., Fringer, O., Koseff, J., R.  
2006
  - **Scalar microstructure associated with breaking internal waves over topographic ridges**  
Troy, C., D., Hult, E., L., Koseff, J., R.  
2006
  - **Experiments on a strongly-stratified turbulent patch with periodic forcing**  
Troy, C., D., Hult, E., L., Koseff, J., R.  
2006
  - **The instability and breaking of long internal waves** *JOURNAL OF FLUID MECHANICS*  
Troy, C. D., Koseff, J. R.  
2005; 543: 107-136



- **Mean potential energy change in stratified grid turbulence (vol 37, pg 271, 2004)** *DYNAMICS OF ATMOSPHERES AND OCEANS*  
Rehmann, C. R., Koseff, J. R.  
2005; 40 (4): 305-308
- **Oscillatory flow through submerged canopies: 1. Velocity structure** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*  
Lowe, R. J., Koseff, J. R., Monismith, S. G.  
2005; 110 (C10)
- **Oscillatory flow through submerged canopies: 2. Canopy mass transfer** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*  
Lowe, R. J., Koseff, J. R., Monismith, S. G., Falter, J. L.  
2005; 110 (C10)
- **Joel Henry Ferziger** *PHYSICS TODAY*  
Kim, J., Koseff, J. R., Leonard, A., Street, R. L.  
2005; 58 (6): 74-75
- **The generation and quantitative visualization of breaking internal waves** *EXPERIMENTS IN FLUIDS*  
Troy, C. D., Koseff, J. R.  
2005; 38 (5): 549-562
- **Obituary - Joel Henry Ferziger** *INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN FLUIDS*  
Kim, J., Koseff, J. R., Leonard, A., Street, R. L.  
2005; 47 (12): 1421-1422
- **Spectral wave dissipation over a barrier reef** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*  
Lowe, R. J., Falter, J. L., Bandet, M. D., Pawlak, G., Atkinson, M. J., Monismith, S. G., Koseff, J. R.  
2005; 110 (C4)
- **Near-bottom depletion of zooplankton over a coral reef - II: relationships with zooplankton swimming ability** *CORAL REEFS*  
Holzman, R., Reidenbach, M. A., Monismith, S. G., Koseff, J. R., Genin, A.  
2005; 24 (1): 87-94
- **Parameterization of turbulent fluxes and scales using homogeneous sheared stably stratified turbulence simulations** *JOURNAL OF FLUID MECHANICS*  
Shih, L. H., Koseff, J. R., Ivey, G. N., FERZIGER, J. H.  
2005; 525: 193-214
- **Wave Driven flow and mass transfer through coral reef canopies**  
Lowe, R., J., Koseff, J., R., Monismith, S., G., Falter, J., L.  
2005
- **Interaction between CO<sub>2</sub>, calcification and hydrodynamics on coral reefs**  
Reidenbach, M., A., Koseff, J., R., Monismith, S., G., Genin, A., Dunbar, R., Zerbe, L.  
2005
- **The effect of wave action on mixing and mass transfer in coral communities**  
Koseff, J., R., Reidenbach, M., A., Monismith, S., G.  
2005
- **Mean potential energy change in stratified grid turbulence** *DYNAMICS OF ATMOSPHERES AND OCEANS*  
Rehmann, C. R., Koseff, J. R.  
2004; 37 (4): 271-294
- **Effects of turbulence and behavior on larval settlement in wave-driven flow**  
Strother, J., A., Koehl, M.A., R., Reidenbach, M., A., Koseff, J., R., Hadfield, M., G.  
2004
- **Turbulence and Mixing in the bottom boundary layers of coral reefs**  
Reidenbach, M., A., Koseff, J., R., Monismith, S., G., Yahel, G., Genin, A.  
2004

- **Modeling and field observations of algal blooms in South San Francisco Bay, 4: Integration of Numerical Models and Field Observations**  
Thompson, J., K., Koseff, J., R., Monismith, S., G., Lucas, L., V.  
2004
- **Modeling and field observations of algal blooms in South San Francisco Bay, 3: Intratidal Physical Processes**  
Lucas, L., V., Koseff, J., R., Cloern, J., E., Monismith, S., G., Thompson, J., K.  
2004
- **The effect of coral morphology and flow on mass transfer in coral communities**  
Reidenbach, M.A., R., Koseff, J., R., Genin, A., Monismith  
2004
- **Wave transformation and circulation on a barrier reef in Kaneohe Bay, Oahu, Hawaii**  
Lowe, R., J., Falter, J., L., Bandet, M., D., Pawlak, G., Monismith, S., G., Koseff, J., R.  
2004
- **Parameterizing turbulent diffusivity using homogeneous shear flow simulations and laboratory data**  
Shih, L., H., Koseff, J., R., Ivey, G., N., Ferziger, J., H.  
2004
- **Modeling and field observations of algal blooms in South San Francisco Bay, 2: Spatial and Temporal variability in light**  
May, C., L., Koseff, J., R., Lucas, L., V., Cloern, J., E., Shoellhammer, D., H.  
2004
- **Modeling and field observations of algal blooms in South San Francisco Bay, 1: Philosophy and Initial Approaches**  
Koseff, J., R., Lucas, L., V., Cloern, J., E., Monismith, S., G., Thompson, J., K.  
2004
- **Intense phytoplankton growth in coral reefs sustained by strong turbulence over rough bottom topography**  
Genin, A., Monismith, S., G., Yahel, G., Reidenbach, M.A., R., Koseff, J., R.  
2004
- **How animals of different sizes encounter chemical cues in turbulent ambient water flow**  
Koehl, M.A., R., Koseff, J., R., Reidenbach, M., A., Strother, J., A., Crimaldi, J., P., Wiley, M., B.  
2004
- **The nature of flow in and around Giant kelp forests**  
Rosman, J., Koseff, J., R., Monismith, S., G., Storlazzi, C., Shaw, W., Gaylord, B.  
2004
- **Visualizing the small-scale distribution of odors encountered by olfactory antennules of benthic crustaceans in turbulent, wave-driven flows**  
Mead, K., S., Wiley, M., B., Koehl, M.A., R., Koseff, J., R.  
2004
- **The effects of oscillatory motion on chemical plumes and how stomatopods use these plumes to find the chemical's source**  
Wiley, M., B., Koseff, J., R., Mead, K., S., Koehl, M.A., R.  
2004
- **Hydrodynamics of sniffing by lobsters** *Annual Meeting of the Society-for-Integrative-and-Comparative-Biology*  
Koehl, M. A., Koseff, J. R., Crimaldi, J. P., Wiley, M. B.  
OXFORD UNIV PRESS INC.2003: 1017-17
- **Which aspects of the response of marine larvae to dissolved chemical cues affects their settlement in turbulent, wave driven flow?** *Annual Meeting of the Society-for-Integrative-and-Comparative-Biology*  
Strother, J. A., Koehl, M. A., Reidenbach, M., Hadfield, M. G., Koseff, J. R.  
OXFORD UNIV PRESS INC.2003: 817-17
- **Effects of spatial and temporal variability of turbidity on phytoplankton blooms** *MARINE ECOLOGY PROGRESS SERIES*  
May, C. L., Koseff, J. R., Lucas, L. V., Cloern, J. E., Schoellhamer, D. H.  
2003; 254: 111-128

- **Testing of RANS turbulence models for stratified flows based on DNS data, Center for Turbulence Research, Stanford University** *Annual Research Briefs*  
Venayagamoorthy, S., K., Koseff, J., R., Ferziger, J., H., Shih, L., H.  
2003: 127-138
- **Modeling phytoplankton blooms in shallow turbid estuaries: a generic study**  
May, C., L., Koseff, J., R., Lucas, L., V., Cloern, J., E.  
2003
- **Beyond the Reynolds Number: Bridging the Spatial and Temporal Gap between Physical and Biological Processes using Time-Scales and Dimensionless Numbers**  
Koseff, J. R.  
2003
- **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*  
Mead, K. S., Wiley, M. B., Koehl, M. A., Koseff, J. R.  
2003; 206 (1): 181-193
- **Hydrodynamics of larval settlement: The influence of turbulent stress events at potential recruitment sites** *LIMNOLOGY AND OCEANOGRAPHY*  
Crimaldi, J. P., Thompson, J. K., Rosman, J. H., Lowe, R. J., Koseff, J. R.  
2002; 47 (4): 1137-1151
- **Effects of the Resolution and Kinematics of Olfactory Appendages on the Interception of Chemical Signals in a Turbulent Odor Plume** *ENVIRONMENTAL FLUID MECHANICS*  
Crimaldi, J. P., Koehl, M. A., Koseff, J. R.  
2002; 2 (1-2): 35-63
- **Numerical simulation of geophysical turbulence** *COMPUTERS & FLUIDS*  
Ferziger, J. H., Koseff, J. R., Monismith, S. G.  
2002; 31 (4-7): 557-568
- **The relationship between mean and instantaneous structure in turbulent passive scalar plumes** *JOURNAL OF TURBULENCE*  
Crimaldi, J. P., Wiley, M. B., Koseff, J. R.  
2002; 3
- **Intense benthic grazing on phytoplankton in coral reefs revealed using the Control Volume approach** *Oceanography*  
Genin, A., Yahel, G., Reidenbach, M., A., Monismith, S., G., Koseff, J., R.  
2002: 90-96
- **Behavioral Responses to Instantaneous Patterns of Water-Borne Chemical Cues Encountered by Microscopic Larvae in Turbulent Wave-Driven Flow Affect Larval Settlement**  
Koehl, M., A., Hadfield, M., D., Reidenbach, M., A., Koseff, J., R.  
2002
- **The mixing of breaking internal waves**  
Troy, C., D., Koseff, J., R., Monismith, S., G., Genin, A., Yahel, G.  
2002
- **Laboratory and Numerical Experiments on Breaking Interfacial Waves**  
Fringer, O., B., Troy, C., D., Street, R., L., Koseff, J., R.  
2002
- **Lobster sniffing: Antennule design and hydrodynamic filtering of information in an odor plume** *SCIENCE*  
Koehl, M. A., Koseff, J. R., Crimaldi, J. P., McCay, M. G., Cooper, T., Wiley, M. B., MOORE, P. A.  
2001; 294 (5548): 1948-1951
- **High-resolution measurements of the spatial and temporal scalar structure of a turbulent plume** *EXPERIMENTS IN FLUIDS*  
Crimaldi, J. P., Koseff, J. R.  
2001; 31 (1): 90-102

- **Turbulent flow over a wavy surface: Stratified case** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*  
Calhoun, R. J., Street, R. L., Koseff, J. R.  
2001; 106 (C5): 9295-9310
- **Size does matter: The effect of sensor morphology and kinematics on perception**  
Crimaldi, J., P., Koseff, J., R., Koehl, M.A., R.  
2001
- **The structure of passive scalar plumes in turbulent boundary layers**  
Crimaldi, J., P., Koseff, J., R.  
2001
- **The role of thermal cycling in supplying nutrients to coral reefs**  
Monismith, S., G., Reidenbach, M., A., Genin, A., Koseff, J., R.  
2001
- **How do benthic crustaceans find odor sources in waves?: Integrating animal behavior and fluid mechanics**  
Wiley, M., B., Mead, K., S., Koseff, J., R., Koehl, M.A., R.  
2001
- **Can larvae of benthic animals use dissolved chemical cues in wave-driven flow**  
Koehl, M. A., Hadfield, M. G., Cooper, T., Reidenbach, M. A., Koseff, J. R.  
SOC INTEGRATIVE COMPARATIVE BIOLOGY.2000: 1089-89
- **Stably stratified turbulent channel flows. I. Stratification regimes and turbulence suppression mechanism** *PHYSICS OF FLUIDS*  
Garg, R. P., Ferziger, J. H., Monismith, S. G., Koseff, J. R.  
2000; 12 (10): 2569-2594
- **Scaling and parameterization of stratified homogeneous turbulent shear flow** *JOURNAL OF FLUID MECHANICS*  
Shih, L. H., Koseff, J. R., FERZIGER, J. H., Rehmann, C. R.  
2000; 412: 1-20
- **Plume dispersion in a stratified, near-coastal flow: measurements and modeling** *CONTINENTAL SHELF RESEARCH*  
Stacey, M. T., Cowen, E. A., Powell, T. M., Dobbins, E., Monismith, S. G., Koseff, J. R.  
2000; 20 (6): 637-663
- **Evaluation of advection schemes for estuary transport - Closure** *JOURNAL OF HYDRAULIC ENGINEERING-ASCE*  
Gross, E. S., Koseff, J. R., Monismith, S. G.  
2000; 126 (4): 314-316
- **Boundary Layer Mixing and Circulation over Rough Topography: Flow over Coral Reefs**  
Monismith, S., G., Reidenbach, M., A., Koseff, J., R., Genin, A.  
2000
- **A Laboratory Study of Fine-Scale Mixing and Mass Transport Above a Coral Reef**  
Reidenbach, M., A., Koseff, J., R., Koehl, M.A., R.  
2000
- **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, CastelvechioPascoli, Italy*  
Crimaldi, J., P., Koseff, J., R., Wiley, M., B.  
2000
- **Odor Plume Structures Encountering 'HemisquillaEnsigueras' 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, CastelvechioPascoli, Italy*  
Wiley, M., B., Mead, K., S., Koseff, J., R., Koehl, M., A.R.  
2000
- **Numerical Simulations of Langmuir Circulation in a Wavy Domain**

Zhou, H., Monismith, S., G., Ferziger, J., H., Koseff, J., R.  
2000

● **A Laboratory Investigation of Breaking Internal Waves**

Troy, C., Koseff, J., R.  
2000

● **The Control of Coastal Current Transport**

Horner, A., Fong, D., Koseff, J., R., Maxworthy, T., Monismith, S., G.  
2000

● **Three-dimensional salinity simulations of south San Francisco Bay** *JOURNAL OF HYDRAULIC ENGINEERING-ASCE*

Gross, E. S., Koseff, J. R., Monismith, S. G.  
1999; 125 (11): 1199-1209

● **Evaluation of advective schemes for estuarine salinity simulations** *JOURNAL OF HYDRAULIC ENGINEERING-ASCE*

Gross, E. S., Koseff, J. R., Monismith, S. G.  
1999; 125 (1): 32-46

● **Physical Influences on Bloom Development in Shallow Tidal Systems: What Time Scales are Important?**

Lucas, L., V., Cloern, J., E., Koseff, J., R., Monismith, S., G.  
1999

● **An Evaluation of Advective Schemes for Estuarine Salinity Simulations** *Journal of Hydraulic Engineering*

Gross, E., S., Koseff, J., R., Monismith, S., G.  
1999; 1 (125): 32-46

● **Design and Quantification of a Laboratory Odor Plume for Use in Biological Studies of Chemical Sensing and Tracking Algorithms**

Crimaldi, J., P., Wiley, M., B., Koseff, J., R.  
1999

● **Concentration Boundary Layers Over Infaunal Bivalves: Predictive Relationships Developed Through Laboratory and Field Studies**

Thompson, J., K., O'Riordan, C., A., Koseff, J., R., Monismith, S., G.  
1999

● **A 'Building-Block' Approach to Models of Transport, Phytoplankton, and Nutrient Dynamics in Estuaries**

Lucas, L., V., Cloern, J., E., Koseff, J., R.  
1999

● **Salinity simulations in San Francisco Bay** *2nd International Symposium on Environmental Hydraulics*

Gross, E. S., Koseff, J. R., Monismith, S. G.  
A A BALKEMA PUBLISHERS.1999: 67-73

● **Processes governing phytoplankton blooms in estuaries. I: The local production-loss balance** *MARINE ECOLOGY PROGRESS SERIES*

Lucas, L. V., Koseff, J. R., Cloern, J. E., Monismith, S. G., Thompson, J. K.  
1999; 187: 1-15

● **Processes governing phytoplankton blooms in estuaries. II: The role of horizontal transport** *MARINE ECOLOGY PROGRESS SERIES*

Lucas, L. V., Koseff, J. R., Monismith, S. G., Cloern, J. E., Thompson, J. K.  
1999; 187: 17-30

● **A semi-implicit method for vertical transport in multidimensional models** *INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN FLUIDS*

Gross, E. S., Casulli, V., Bonaventura, L., Koseff, J. R.  
1998; 28 (1): 157-186

● **Does the Sverdrup critical depth model explain bloom dynamics in estuaries?** *JOURNAL OF MARINE RESEARCH*

Lucas, L. V., Cloern, J. E., Koseff, J. R., Monismith, S. G., Thompson, J. K.  
1998; 56 (2): 375-415

● **Turbulent mixing in a shear-free stably stratified two-layer fluid** *JOURNAL OF FLUID MECHANICS*

Briggs, D. A., FERZIGER, J. H., Koseff, J. R., Monismith, S. G.

1998; 354: 175-208

- **Direct numerical simulation of wave-mean flow and wave-wave interactions: A brief perspective** *Symposium on Physical Limnology*  
Lin, C. L., Koseff, J. R., FERZIGER, J. H., Monismith, S. G.  
AMER GEOPHYSICAL UNION.1998: 271–283
- **Buoyancy fluxes in a stratified fluid** *Symposium on Physical Limnology*  
Ivey, G. N., Imberger, J., Koseff, J. R.  
AMER GEOPHYSICAL UNION.1998: 377–387
- **Scaling of Homogeneous Sheared Stratified Turbulence**  
Shih, L., Koseff, J., R., Ferziger, J., H., Rehmann, C., R.  
1998
- **Nonintrusive Measurements of Turbulent Scalar Fluxes Using a Combined LDA/LIF Probe**  
Crimaldi, J., P., Koseff, J., R.  
1998
- **Experiments on Breaking Internal Waves at a Sharp Density Interface**  
Troy, C., D., Koseff, J., R., Rehmann, C., R.  
1998
- **Plume Measurements in Shallow Coastal Waters at Scales of Several Hundred Meters**  
Cowen, E., A., Stacey, M., T., Dobbins, L., Monismith, S., G., Powell, T., M., Koseff, J., R.  
1998
- **Identification of Plume Source Location in Coastal Waters**  
Stacey, M., T., Cowen, E. A., Dobbins, L., Monismith, S., G., Powell, T., M., Koseff, J., R.  
1998
- **Plume Dispersion Modeling in Coastal Waters**  
Powell, T., M., Stacey, M., T., Cowen, E., A., Dobbins, L., Monismith, S., G., Koseff, J., R.  
1998
- **Numerical Simulation of Langmuir Circulation and Its Comparison with the Craik-Leibovich Theory**  
Zhou, H., Monismith, S., G., Ferziger, J., H., Koseff, J., R.  
1998
- **Buoyancy Fluxes in a Stratified Fluid** *Physical Processes in Lakes and Oceans (ed. J. Imberger), American Geophysical Union*  
Ivey, G., N., Imberger, J., Koseff, J., R.  
1998: 377-388
- **Effects of molecular diffusivity on mixing in a stratified fluid: Experiment and time scale analysis** *12th Symposium on Boundary Layers and Turbulence*  
Rehmann, C. R., Koseff, J. R.  
AMER METEOROLOGICAL SOCIETY.1997: 162–163
- **Using wavelets to study mixing in stably stratified turbulent flow** *12th Symposium on Boundary Layers and Turbulence*  
PICCIRILLO, P., Street, R. L., Koseff, J. R.  
AMER METEOROLOGICAL SOCIETY.1997: 249–250
- **Turbulent Scalar Flux Measurements over Model Bivalves**  
Crimaldi, J., P., Koseff, J., R.  
1997
- **Using Wavelets for Study Mixing in a Stably Stratified Turbulent Flow**  
Piccirillo, P., Street, R., L., Koseff, J., R.  
1997
- **Modeling the Interaction of Horizontal Transport and Horizontal Variability in Phytoplankton Population Growth in a Shallow Estuary**  
Lucas, L., V., Thompson, J., K., Koseff, J., R., Monismith, S., G., Cloern, J., E.

1997

- **The Role of Hydrodynamics in the Recruitment of Benthic Fauna**  
Crimaldi, J., P., Thompson, J., K., Koseff, J., R., Monismith, S., G.  
1997
- **The Relative Importance of Benthic Grazing Rates and Hydrodynamics on Phytoplankton Dynamics in San Francisco Bay, CA**  
Thompson, J., K., Lucas, L., V., Koseff, J., R., Monismith, S., G.  
1997
- **Turbulent scalar flux measurements over model bivalves** *27th Congress of the International-Association-for-Hydraulic-Research*  
Crimaldi, J., Koseff, J.  
AMER SOC CIVIL ENGINEERS.1997: 161-167
- **Combined forced and natural convection heat transfer in a deep lid driven cavity flow** *INTERNATIONAL JOURNAL OF HEAT AND FLUID FLOW*  
Prasad, A. K., Koseff, J. R.  
1996; 17 (5): 460-467
- **Environmental hydraulics: New research directions for the 21st century** *JOURNAL OF HYDRAULIC ENGINEERING-ASCE*  
Johnson, P. A., Brooks, N. H., French, R. H., Koseff, J. R., Maidment, D. R., Monismith, S. G., Parker, S.  
1996; 122 (4): 180-183
- **Entrainment in a shear-free turbulent mixing layer** *JOURNAL OF FLUID MECHANICS*  
Briggs, D. A., FERZIGER, J. H., Koseff, J. R., Monismith, S. G.  
1996; 310: 215-241
- **The effects of near-bed hydrodynamics on model bivalve filtration rates** *International Symposium on Suspended Particulate Matter in Rivers and Estuaries*  
ORIORDAN, C. A., Monismith, S. G., Koseff, J. R.  
E SCHWEIZERBART'SCHE VERLAGSBUCHHANDLUNG.1996: 247-254
- **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*  
Thompson, J., K., Lucas, L., V., Koseff, J., R., Monismith, S., G.  
1996; 76 (3): 67
- **(ASCE Task Committee on Hydraulic Engineering Research Advocacy), Environmental Hydraulics: New research directions for the 21st Century** *ASCE J.Hydr*  
Johnson, P., A., Brooks, N., H., French, R., A., Koseff, J., R., Maidment, D., R., Monismith, S., G.  
1996; 4 (122): 180-183
- **A Study of Internal Wave Energy Transfer Using Direct Numerical Simulation** *1996 Ocean Sciences Meeting*  
Lin, C-L., Koseff, J., R., Ferziger, J., H., Monismith, S., G.  
1996; 76 (3): 206
- **The Effect Near-Bed Hydrodynamics on Model Bivalve Filtration Rates** *Arch. Hydrobiol. Spec. Issues Advanc. Iimnol*  
O'Riordan, C., A., Monismith, S., G., Koseff, J., R.  
1996: 247-254
- **Numerical Modeling of Coupled Hydrodynamics and Phytoplankton Dynamics in Shallow Estuaries** *1996 Ocean Sciences Meeting, Paper OS32J-10, EOS*  
Lucas, L., V., Thompson, J., K., Koseff, J., K., Monismith, S., G., Cloern, J., E.  
1996; 76 (3): 133
- **Turbulent Entrainment in a Stably Stratified, Shear-Free Mixing Layer** *1996 Ocean Sciences Meeting, Paper OS41E-4, EOS*  
Briggs, D., Koseff, J., R., Ferziger, J., Monismith, S.  
1996; 76 (3): 150
- **Numerical Studies of Stably Stratified Channel Flows** *1996 Ocean Sciences Meeting, Paper OS11J-02, EOS*  
Garg, R., P., Ferziger, J., H., Monismith, S., G., Koseff, J., R.  
1996; 76 (3): 16
- **Hydrodynamics of Recruitment in Benthic Fauna** *1996 Ocean Sciences Meeting, Paper OS22K-06, EOS*

- 
- Crimaldi, J., P., Thompson, J., K., Koseff, J., R., Monismith, S., G.  
1996; 76 (3): 88
- **Effects of Stratification on the Mixing Efficiency of Decaying Turbulence** *1996 Ocean Sciences Meeting, Paper OS41E-03, EOS*  
Rehmann, C., E., Koseff, J., R.  
1996; 76 (3): 150
  - **Processes Underlying Phytoplankton Variability in San Francisco Bay** *San Francisco Bay, The Ecosystem, (ed. T Hollibaugh), Pacific Division of AAAS*  
Jassby, A., D., Koseff, J., R., Monismith, S., G.  
1996: 325-350
  - **THE EFFECT OF BIVALVE EXCURRENT JET DYNAMICS ON MASS-TRANSFER IN A BENTHIC BOUNDARY-LAYER** *LIMNOLOGY AND OCEANOGRAPHY*  
ORIORDAN, C. A., Monismith, S. G., Koseff, J. R.  
1995; 40 (2): 330-344
  - **ON TRIAD INTERACTIONS IN A LINEARLY STRATIFIED OCEAN** *JOURNAL OF PHYSICAL OCEANOGRAPHY*  
Lin, C. L., Koseff, J. R., FERZIGER, J. H.  
1995; 25 (1): 153-167
  - **Benthic Grazing by Bivalves as a Control on South San Francisco Bay, Ca (UASA) Phytoplankton Biomass: Field Observations in Support of a Numerical Model**  
Thompson, J., K., Lucas, L., V., Koseff, J., R.  
1995
  - **To Bloom, or Not to Bloom? A Happy Marriage between Numerical Modeling and Field Work**  
Lucas, L., V., Thompson, J., K., Koseff, J., R., Monismith, S., G.  
1995
  - **Digital Article 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*  
Cowen, E., A., Monismith, S., G., Koseff, J., R.  
1995: 135-144
  - **Buoyancy Fluxes in a Stratified Fluid**  
Ivey, G., N., Imberger, J., Koseff, J., R.  
1995
  - **Direct Numerical Simulation of Wave-Mean Flow and Wave-Wave Interactions: A Brief Perspective**  
Lin, C-L., Koseff, J., R., Ferziger, J., H., Monismith, S., G.  
1995
  - **Numerical Modeling of Coupled Hydrodynamics and Phytoplankton Dynamics in Shallow Estuaries**  
Lucas, L., V., Thompson, J., K., Koseff, J., R., Monismith, S., G.  
1995
  - **THE INTERNAL STRUCTURE OF LATERAL INTRUSIONS IN A CONTINUOUSLY STRATIFIED HEAT SALT SYSTEM** *PHYSICS OF FLUIDS*  
McDonald, E. T., Koseff, J. R.  
1994; 6 (12): 3870-3883
  - **A NON-STAGGERED GRID, FRACTIONAL STEP METHOD FOR TIME-DEPENDENT INCOMPRESSIBLE NAVIER-STOKES EQUATIONS IN CURVILINEAR COORDINATES** *JOURNAL OF COMPUTATIONAL PHYSICS*  
Zang, Y., Street, R. L., Koseff, J. R.  
1994; 114 (1): 18-33
  - **Mixing Efficiency of Decaying Grid Turbulence in a Stratified Fluid**  
Rehmann, C., R., Koseff, J., R.  
1994
  - **Entrainment in a Turbulent Mixing Layer**  
Briggs, D., A., Ferziger, J., H., Koseff, J., R.



1994

- **Entrainment in a Turbulent Mixing Layer**  
Briggs, D., A., Ferziger, J., H., Koseff, J., R., Monismith, S., G.  
1994
- **Towed Grid Experiments on Mixing in a Stratified Flow**  
Rehmann, C., R., Koseff, J., R.  
1994
- **A DYNAMIC MIXED SUBGRID-SCALE MODEL AND ITS APPLICATION TO TURBULENT RECIRCULATING-FLOWS** *PHYSICS OF FLUIDS A-FLUID DYNAMICS*  
Zang, Y., Street, R. L., Koseff, J. R.  
1993; 5 (12): 3186-3196
- **A STUDY OF CONCENTRATION BOUNDARY-LAYER FORMATION OVER A BED OF MODEL BIVALVES** *LIMNOLOGY AND OCEANOGRAPHY*  
ORIORDAN, C. A., Monismith, S. G., Koseff, J. R.  
1993; 38 (8): 1712-1729
- **COUPLED EFFECTS OF VERTICAL MIXING AND BENTHIC GRAZING ON PHYTOPLANKTON POPULATIONS IN SHALLOW, TURBID ESTUARIES** *JOURNAL OF MARINE RESEARCH*  
Koseff, J. R., HOLEN, J. K., Monismith, S. G., Cloern, J. E.  
1993; 51 (4): 843-868
- **SIMULATION AND STABILITY OF 2-DIMENSIONAL INTERNAL GRAVITY-WAVES IN A STRATIFIED SHEAR-FLOW** *Ocean Sciences Meeting of the American-Geophysical-Union*  
Lin, C. L., FERZIGER, J. H., Koseff, J. R., Monismith, S. G.  
ELSEVIER SCIENCE BV.1993: 325-66
- **TURBULENCE IN STRATIFIED SHEAR FLOWS - IMPLICATIONS FOR INTERPRETING SHEAR-INDUCED MIXING IN THE OCEAN** *JOURNAL OF PHYSICAL OCEANOGRAPHY*  
ITSWEIRE, E. C., Koseff, J. R., Briggs, D. A., FERZIGER, J. H.  
1993; 23 (7): 1508-1522
- **Entrainment in a Turbulent Mixing Layer**  
Briggs, D., A., Ferziger, J., H., Koseff, J., R.  
1993
- **An Experimental Study of Siphonal Jets in a Turbulent Boundary Layer Crossflow**  
O'Riordan, C., A., Monismith, S., G., Koseff, J., R.  
1993
- **The Effects of Vertical Mixing, Benthic Grazing, and Lateral Exchange on Estuarine Phytoplankton Dynamics**  
Koseff, J., R., Monismith, S., G., Videgar, L., L., Holen, J., K., Cloern, J., E.  
1993
- **Structure of Coastal Upwelling on a Sloping Bottom**  
Zang, Y., Street, R., L., Koseff, J., R.  
1993
- **Large Eddy Simulation of Turbulent Cavity Flow Using a Dynamic Subgrid-Scale Model** *Engineering Applications of Large Eddy Simulations*  
Wang, Y., Street, R., L., Koseff, J., R.  
edited by Ragab, S., A., Piomelli, U.  
ASME Fluids Engineering Conference, Washington, D.C.1993: 121-126
- **Comparison of Advective Transport Algorithms with an Application in Suisun Bay, a Sub-Embayment of San Francisco Bay, California**  
Bureau, J., Koseff, J., R., Monismith, S., G.  
1993
- **An Experimental Study of Bivalve Siphonal Jets in a Turbulent Boundary Layer Crossflow**  
O'Riordan, C., A., Monismith, S., G., Koseff, J., R.

1993

- **A NUMERICAL STUDY OF THE EVOLUTION AND STRUCTURE OF HOMOGENEOUS STABLY STRATIFIED SHEARED TURBULENCE** *JOURNAL OF FLUID MECHANICS*  
Holt, S. E., Koseff, J. R., FERZIGER, J. H.  
1992; 237: 499-539
- **THE DYNAMICS OF INTRUSIONS INTO A THERMOHALINE STRATIFICATION** *JOURNAL OF FLUID MECHANICS*  
Schladow, S. G., Thomas, E., Koseff, J. R.  
1992; 236: 127-165
- **The Structure of Lateral Intrusions in a Two Component Continuously Stratified Heat/Salt System**  
Thomas, E., McDonald, Koseff, J., R.  
1992
- **A Study of Concentration Boundary Layer Formation over a Bed of Model Siphonate Bivalves**  
O'Riordan, C., A., Monismith, S., G., Koseff, J., R.  
1992
- **On Self-Propagation of Thermohaline Intrusions**  
Thomas, E., McDonald, Koseff, J., R.  
1992
- **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*  
Koseff, J., R., Itsweire, E., C., Ferziger, J., H., Briggs, D., A.  
1992; 73 (43): 320
- **Hydrodynamic Influences on Benthic Grazing of Estuarine Phytoplankton**  
Monismith, S., G., Koseff, J., R., Holen, J., K., Cloern, J., E., O'Riordan, C., A.  
1992
- **Mixing in a Stratified Shear Flow: Energetics and Sampling**  
Ivey, G., Koseff, J., R., Briggs, D., A., Ferziger, J., H.  
1992, 1993
- **Application of Subgrid-Scale Model to Turbulent Recirculating Flows**  
Zang, Y., Street, R., L., Koseff, J., R.  
1992, 1993
- **Hydrodynamics of Benthic-Bivalve Feeding**  
Koseff, J., R.  
1991
- **3-DIMENSIONAL COMPOSITE-MULTIGRID COMPUTATIONS OF INCOMPRESSIBLE FLOWS IN COMPLEX GEOMETRIES** *ASIAN PACIFIC CONF ON COMPUTATIONAL MECHANICS ( APCOM )*  
Zang, Y., Street, R. L., Koseff, J. R.  
A A BALKEMA.1991: 1379-1384
- **A Composite-Multigrid Method for Solving Unsteady Incompressible Navier-Stokes Equations in Complex Geometries**  
Zang, Y., Street, R., L., Koseff, J., R.  
1991
- **An Experimental Study of the Behavior of Bivalve Siphonal Currents in the Boundary Layer Flows**  
O'Riordan, C., A., Monismith, S., G., Koseff, J., R.  
1991
- **Numerical Study of the Critical Layer Process**  
Lin, C., L., Ferziger, J., H., Koseff, J., R., Monismith, S., G.  
1991

- **A STUDY OF MODEL BIVALVE SIPHONAL CURRENTS** *LIMNOLOGY AND OCEANOGRAPHY*  
Monismith, S. G., Koseff, J. R., Thompson, J. K., ORIORDAN, C. A., Nepf, H. M.  
1990; 35 (3): 680-696
- **COMPLEX CAVITIES - ARE 2 DIMENSIONS SUFFICIENT FOR COMPUTATION** *PHYSICS OF FLUIDS A-FLUID DYNAMICS*  
Koseff, J. R., Prasad, A. K., Perng, C. Y., Street, R. L.  
1990; 2 (4): 619-622
- **Complex Cavities: How Many Dimensions are Sufficient for Simulation?** *Physics of Fluids*  
Koseff, J., R., Prasad, A., K., Perng, C-Y., Street, R., L.  
1990; 4 (2): 619-622
- **Flume Modeling of Bivalve Siphonal Currents in Boundary Layer Flows** *EOS*  
O'Riordan, C., A., Monismith, S., G., Koseff, J., R.  
1990; 71 (43): 1359
- **Thermohaline Intrusions in a Two Component Density Stratified System**  
Thomas, E., Schladow, S., G., Koseff, J., R.  
1990
- **Structure of Thermohaline Intrusions--A Comparison of Numerical and Experimental Results** *EOS*  
Schladow, S., G., Thomas, E., Koseff, J., R.  
1990; 71 (43): 1360
- **Direct Simulation of Stably-Stratified Sheared Turbulence** *EOS*  
Koseff, J., R., Holt, S., E., Itsweire, E., C., Ferziger, J., H.  
1990; 71 (43): 1360
- **Some Effects of Boundary Layer Flows on Bivalve Siphon Currents**  
Koseff, J., R., O'Riordan, C., Monismith, S., G.  
1990
- **Hydraulic Modeling of Benthic Suspension Feeding Bivalves in Shallow Estuaries**  
O'Riordan, C., A., Koseff, J., R., Monismith, S., G.  
1990
- **REYNOLDS-NUMBER AND END-WALL EFFECTS ON A LID-DRIVEN CAVITY FLOW** *PHYSICS OF FLUIDS A-FLUID DYNAMICS*  
Prasad, A. K., Koseff, J. R.  
1989; 1 (2): 208-218
- **The Formation of Lateral Intrusions in a Thermohaline Stratification**  
Thomas, E., Schladow, S., G., Koseff, J., R.  
1989
- **The Evolution of Turbulence in the Presence of Mean Shear and Stable Stratification**  
Holt, S., Koseff, J., R., Ferziger, J., H.  
1989
- **Thermohaline Intrusions in a Two-Component, Density Stratified System**  
Thomas, E., Schladow, S., G., Koseff, J., R.  
1989
- **Mixed-Convection Heat Transfer in a Deep Lid-Driven Cavity Flow** *Heat Transfer in Convective Flow, ASME*  
Prasad, A., K., Koseff, J., R.  
1989; 107: 155-162
- **Some Observations on the Influence of Longitudinal Vortices in a Lid-Driven Cavity Flow**  
Prasad, A., K., Perng, C., Koseff, J., R.  
1988

- **Research Directions in Physical Processes – Water**  
Roberts, P, V., Koseff, J., R.  
1988
- **A Model Study of Bivalve Currents**  
Koseff, J., R., Monismith, S., G., Nepf, H., M.  
1988
- **An Experimental Study of Convective Intrusions in a Two-Component, Density Stratified System**  
Thomas, E., Schladow, S., G., Koseff, J., R.  
1988
- **Plume-Underflow Interaction in Natural Enclosures**  
Holt, S., Koseff, J., R.  
1987
- **The Use of Personal Computers in Civil Engineering Education**  
Koseff, J., R., Katz, G.  
1987
- **Can Reliable Phase Measurements be made by Laser-Doppler Anemometry?**  
Jiang, J Y., Prasad, A., K., Koseff, J., R., Cheung, T., K., Street, R., L., Klotz, S., P.  
1987
- **Simultaneous Flow and Temperature Field Visualization in a Mixed-Convection Flow**  
Rhee, H.-S., Koseff, J., R., Street, R., L.  
1986
- **NUMERICAL-SIMULATION OF 3-DIMENSIONAL FLOW IN A CAVITY** *INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN FLUIDS*  
Freitas, C. J., Street, R. L., Findikakis, A. N., Koseff, J. R.  
1985; 5 (6): 561-575
- **Visualization of Natural and Mixed-Convection Flow in a Cavity**  
Rhee, H.S., Koseff, J., R., Street, R., L.  
1985
- **An Examination of Mixed and Natural Convection in a Cavity**  
Koseff, J., R., Street, R., L., Freitas, C., J., Rhee, H.  
1985
- **A Successful Numerical Simulation of a Three-Dimensional Cavity Flow** *International Journal for Numerical Methods in Fluids*  
Freitas, C., J., Street, R., L., Findikakis, A., N., Koseff, J., R.  
1985: 561-575
- **Computer-Based Data Acquisition, Analysis and Control: A Minicomputer System**  
Meakin, R., L., Rhee, H.S., Koseff, J., R., Street, R., L.  
1985
- **Circulation Structure in a Stratified Lid-Driven Cavity Flow** *Jour. Hydr. Div., ASCE*  
Koseff, J., R., Street, R., L.  
1985; 2 (111)
- **CIRCULATION STRUCTURE IN A STRATIFIED CAVITY FLOW** *JOURNAL OF HYDRAULIC ENGINEERING-ASCE*  
Koseff, J. R., Street, R. L.  
1985; 111 (2): 334-354
- **THE LID-DRIVEN CAVITY FLOW - A SYNTHESIS OF QUALITATIVE AND QUANTITATIVE OBSERVATIONS** *JOURNAL OF FLUIDS ENGINEERING-TRANSACTIONS OF THE ASME*  
Koseff, J. R., Street, R. L.  
1984; 106 (4): 390-398

- **A Fiber Optical Link for Modular Two Component LDA Optics and Argon-Ion Lasers**  
Meakin, R., L., Koseff, J., R., Street, R., L.  
1984
- **VISUALIZATION STUDIES OF A SHEAR DRIVEN 3-DIMENSIONAL RECIRCULATING FLOW** *JOURNAL OF FLUIDS ENGINEERING-TRANSACTIONS OF THE ASME*  
Koseff, J. R., Street, R. L.  
1984; 106 (1): 21-29
- **FLOW VISUALIZATION OF A RECIRCULATING FLOW BY RHEOSCOPIC LIQUID AND LIQUID-CRYSTAL TECHNIQUES** *EXPERIMENTS IN FLUIDS*  
Rhee, H. S., Koseff, J. R., Street, R. L.  
1984; 2 (2): 57-64
- **ON END WALL EFFECTS IN A LID-DRIVEN CAVITY FLOW** *JOURNAL OF FLUIDS ENGINEERING-TRANSACTIONS OF THE ASME*  
Koseff, J. R., Street, R. L.  
1984; 106 (4): 385-389
- **VELOCITY-MEASUREMENTS IN A LID-DRIVEN CAVITY FLOW**  
Koseff, J. R., Street, R. L., Rhee, H.  
ASME-AMER SOC MECHANICAL ENG.1983: 97-97
- **Mixing in a Stratified Recirculating Flow**  
Koseff, J., R., Rhee, H., Street, R., L.  
1983
- **Velocity Measurements in a Lid-Driven Cavity Flow** *ASME Symposium on Numerical and Experimental Investigations of Confined Recirculating Flows, preprint*  
Koseff, J., R., Street, R., L., Rhee, H.  
1983: 83-FE-12
- **Flow Visualization and Heat Flux Measurements in a Three-Dimensional Recirculating Flow**  
Koseff, J., R., Rhee, H., Street, R., L.  
1983
- **A Three-Dimensional Lid-Driven Cavity Flow: Experiment and Simulation**  
Koseff, J., R., Street, R., L., Gresho, P., M., Upton, C., D., Humphrey, J.A., C., To, W.M.  
1983
- **Simultaneous Backward-Scatter Forward-Scatter Laser-Doppler Anemometer Measurements in an Open Channel Flow** *DISA Information*  
Cheung, T., K., Koseff, J., R.  
1983: 3-9
- **Visualization Studies of a Shear-Driven, Three-Dimensional Recirculating Flow** *Three-Dimensional Turbulent Shear Driven Flows, ASME*  
Koseff, J., R., Street, R., L.  
1982: 23-31