

# Stanford


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## 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

#### • Administrator

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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 focuses on the interaction between physical and biological systems in natural aquatic environments, and in particular on turbulence and internal wave dynamics; transport, mixing, and phytoplankton dynamics in estuarine systems; and coral reef, kelp forest, and sea-grass hydrodynamics. More recently he has begun focusing on the fate of brine discharges in the near coastal ocean from desalination facilities, and on the use of natural vegetation for providing coastal protection and resilience. Long-term research projects include understanding the transport of mass and momentum in estuarine systems such as San Francisco Bay, and understanding how water flow affects the functioning of California kelp forests, and the coral reef systems of the Great Barrier Reef, the Red Sea and Hawaii. Koseff has served on the board of governors of the Israel Institute of Technology and has served on the visiting committees of the Civil and Environmental Engineering Department at Carnegie Mellon University, Iowa Institute of Hydraulic Research and The MIT-WHOI Joint Program. He is a former member of the Independent Science Board of the Bay/Delta Authority.

#### 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

- 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)
- Gladden 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**

#### **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)

#### **2014-15**

- Meeting the Global Sustainability Challenge: THINK 40 (Win)
- Rivers, Streams, and Canals: CEE 161A, CEE 264A (Aut)

## **STANFORD ADVISEES**

### **Doctoral Dissertation Reader (AC)**

Valerie Troutman

### **Doctoral Dissertation Advisor (AC)**

Tracy Mandel

Master's Program Advisor

Caroline von Muench

## 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 combinedflows**  
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.
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- **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.  
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- **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*  
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.  
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- **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.  
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- **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
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