

## Julia Fiedler Kannberg (née Fiedler)

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CONTACT INFORMATION	Scripps Institution of Oceanography University of California San Diego 9500 Gilman Drive La Jolla, CA 92093-0209 USA	<i>Mobile:</i> +1-808-282-8649 <i>Office:</i> +1-858-534-7202 <i>E-mail:</i> jfiedler@ucsd.edu
RESEARCH INTERESTS	<b>Observational Nearshore Physical Oceanography:</b> infragravity waves, wave runup, beach-groundwater interactions, science communication and education	
CURRENT ACADEMIC APPOINTMENT	<b>Postdoctoral Scholar</b> , Scripps Institution of Oceanography	June 2018- current
EDUCATION	Ph.D. Physical Oceanography <i>Scripps Institution of Oceanography, La Jolla, CA</i>	<b>May 2018</b> Advanced to Candidacy 2014
	M.S. Physical Oceanography <i>Scripps Institution of Oceanography, La Jolla, CA</i>	<b>August 2013</b>
	B.S. Global Environmental Science, Mathematics Minor <i>University of Hawaii at Manoa, Honolulu, HI</i>	<b>June 2011</b>
	B.A. Fine Art <i>Yale University, New Haven, CT</i>	<b>June 2003</b>
AWARDS	UC Ship Funds, GOTOSEE Cruise, Summer 2016 Teaching Assistant Excellence Award, SIO, Fall 2015 National Defense Science and Engineering Fellowship, 2012-2015 Wiegel Scholarship for Coastal Studies, CSBPA, 2014 NSF Graduate Research Fellowship, Award Offered 2012, Honorable Mention 2011 UH Manoa SOEST Achievement Tuition Scholarship, Fall 2009, Spring 2010, Fall 2010 UH Manoa Summer Undergraduate Research Award, Summer 2009	
PAPERS	<b>Fiedler, J.W.</b> , P.B. Smit, K.L. Brodie, J.E. McNinch, and R.T. Guza, The offshore boundary condition in surf zone modeling, <i>Coast. Eng.</i> , 143, 2019. doi:10.1016/j.coastaleng.2018.10.014 <b>Fiedler, J.W.</b> , P.B. Smit, K.L. Brodie, J.E. McNinch, and R.T. Guza, Numerical modeling of wave runup on steep and mildly sloping natural beaches, <i>Coast. Eng.</i> , 131, 2018. doi:10.1016/j.coastaleng.2017.09.004 <b>Fiedler, J.W.</b> , K.L. Brodie, J.E. McNinch, and R.T. Guza, Observations of runup and energy flux on a low slope beach with high-energy, long-period ocean swell, <i>Geophys. Res. Lett.</i> , 42, 2015. doi:10.1002/2015GL066124 <b>Fiedler, J.W.</b> , M.A. McManus, M.S. Tomlinson, E.H. De Carlo, G.R. Pawlak, G.F. Steward, O.D. Nigro, R.E. Timmerman, P.S. Drupp, and C.E. Ostrander, Real-time observations of the February 2010 Chile and March 2011 Japan tsunamis recorded in Honolulu by the Pacific Islands Ocean Observing System. <i>Oceanography</i> , 27(2), 186-200, 2014. doi:10.5670/oceanog.2014.34 <b>Fiedler, J.W.</b> and C.P. Conrad, Spatial variability of sea level rise due to water impoundment behind dams. <i>Geophys. Res. Lett.</i> , 37, L12603, 2010. doi:10.1029/2010GL043462	
CONFERENCE POSTERS AND PRESENTATIONS	<b>Fiedler, J.W.</b> , P. Smit, K.L. Brodie, J.E. McNinch, T Gallien, R.T. Guza, Numerical Modeling of Infragravity Wave Runup on Steep and Mildly Sloping Natural Beaches, Abstract 161704. Presented at: <i>2016 Fall Meeting, AGU, San Francisco, California</i> , December 12-17, 2016. Poster abstract.	

**Fiedler, J.W.**, S. Crosby, V Tamsitt, B Ludka, Experiential Learning: High School Student Response to Learning Oceanography at Sea, Abstract 161561. Presented at: *2016 Fall Meeting, AGU, San Francisco, California*, December 12-17, 2016.

Rhee, K., **J.W. Fiedler**, S. Crosby, Observations of High-frequency Internal Wave Energy Offshore of Point Loma, California, Abstract 179397. Presented at: *2016 Fall Meeting, AGU, San Francisco, California*, December 12-17, 2016. Poster abstract.

**Fiedler, J.W.**, W.C. O'Reilly, K.L. Brodie, J.E. McNinch, and R.T. Guza, Parameterizing wave runup with an effective peak frequency, Abstract 90472. Presented at: *2016 Ocean Sciences Meeting, New Orleans, Louisiana*, 21-26 February, 2016. Poster abstract.

**Fiedler, J.W.**, K.L. Brodie, J.E. McNinch, and R.T. Guza, Infragravity waves, water table, and runup observations on a nourished Southern California beach, Abstract 14495 Presented at: *2014 Ocean Sciences Meeting, Honolulu, Hawaii*, 23-28 February, 2014.

**Fiedler, J.W.**, K.L. Brodie, J.E. McNinch, and R.T. Guza, Infragravity waves, water table, and runup observations on a nourished Southern California beach. Presented at: *2014 Headwaters 2 Oceans Conference, San Diego, California*, 27-29 May, 2014.

**Fiedler, J.W.**, K.L. Brodie, J.E. McNinch, and R.T. Guza, Surf zone, infragravity wave energy flux, and runup in extreme conditions, Abstract OS11A-1258 Presented at: *2014 Fall Meeting, AGU, San Francisco, California*, 15-19 December, 2014. Poster abstract.

Tomlinson, M.S., E.H. De Carlo, M.A. McManus, G.R. Pawlak, **J.W. Fiedler**, S. Jaramillo, P.S. Drupp, R.E. Timmerman, What have we learned from "routine" IOOS monitoring? Presented at: *2012 Ocean Sciences Meeting, AGU, Salt Lake City, Utah*, 20-24 February, 2012. Poster abstract.

**Fiedler, J.W.** and C.P. Conrad, Spatial variability of sea level rise due to water impoundment behind dams Presented at: *2009 Fall Meeting, AGU, San Francisco, California*, 14-18 December, 2009. Poster abstract.

PAPERS IN PREPARATION

**Fiedler, J.W.**, P.B. Smit, and R.T. Guza, Modeling large waves and runup on a low slope beach with SWASH 1D, *In prep for Coast. Eng.*

TEACHING EXPERIENCE

*Relevant Coursework*

- The College Classroom, Fall 2015
- SIO 209 Seminar: Earth and marine science teaching techniques, Fall 2015
- SIO 209 Seminar: Communicating science to informal audiences, Fall 2014

*Teaching Assistant, SIO 30: The Oceans*

**Fall 2015**

- Ran and designed two one-hour discussion sections per week for an introductory-level oceanography lecture course (20 instruction hours), with approximately 20 students per section.

*Co-Instructor, SIO: Physics of the Ocean World*

**Summer 2015, Summer 2016**

- Designed and taught a 3-week curriculum (75 instruction hours) for an introductory college-level physical oceanography course for high school students through the Academic Connections program at UCSD

*Co-Instructor, Upward Bound, with University of San Diego*

**July 2015, 2016**

- Designed 2 days of lecture and lab for high school seniors focusing on nearshore processes

*Tutoring, UH Manoa*

**Spring 2010**

- Tutor for Aquatic Pollution and Global Environmental Change

FIELD EXPERIENCE

GOTOSEE, R/V Sproul, *Chief Scientist*, Point Loma, California, July 2016  
 CSIDE, Imperial Beach, California, Fall 2015  
 EWAB, Agate Beach, Oregon, Fall 2013  
 Cardiff State Beach Lidar Project with USACE, Winter 2012-2013  
 SCBPS Beach Surveys, San Diego County, California, 2011-present  
 Scientific Instrument Tech, HiOOS nearshore sensors, 2010-2011  
 Scientific Diving Certification, 2012-2017

SKILLS                    MATLAB, UNIX, python, Adobe Illustrator, Adobe InDesign

PROFESSIONAL        American Geophysical Union (AGU), Member, 2009–present  
MEMBERSHIPS        The Oceanography Society, Member, 2014–present

OUTREACH             Mentoring

- Kaitlin Rhee, high school student, July-December 2016.  
    Resulted in poster presentation at "Bright STaRS" session, AGU 2016

Scripps Community Outreach Program for Education (SCOPE) 2013- 2017  
Committee for Humanity and Public Service (CHiPS) 2012 - 2017

- Co-president 2012-2014

Science Demonstration Leader

- Avanzamos Conference at UCSD, 2014
- Science Expo Day at PETCO Park, San Diego, 2015
- Expanding Your Horizons at University of San Diego, 2015, 2016
- STEM Career Night at Birch Aquarium, 2015, 2016

Speaker/Panelist

- STEM Camp, Mira Costa College, 2015.
- STEM Career Night at Birch Aquarium, 2015, 2016
- Beach Science program with the Birch Aquarium, 2015, 2016

Tutoring at Rosa Parks Elementary, 2014