

## Derek L. Smith

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CONTACT INFORMATION	Department of Mathematics 6432 N South Hall University of California Santa Barbara, CA 93106	(717) 395-7273 dls@math.ucsb.edu <a href="http://www.math.ucsb.edu/~dls">http://www.math.ucsb.edu/~dls</a>
RESEARCH INTERESTS	Nonlinear dispersive partial differential equations.	
EDUCATION	<b>University of California, Santa Barbara</b> Ph.D. Mathematics, expected June 2016 <ul style="list-style-type: none"><li>■ Dissertation Title: “Higher order nonlinear dispersive models”</li><li>■ Advisor: Gustavo Ponce</li></ul> M.A. in Mathematics, June 2012 <b>Naval Postgraduate School</b> B.S. in Meteorology, December 2005 <b>Air Force Officer Training School</b> Commissioned Second Lieutenant, December 2004 <b>Pennsylvania State University, Harrisburg</b> B.S. in Mathematical Sciences, May 2003	
PUBLICATIONS	F. Linares, G. Ponce, D. L. Smith, <i>On the regularity of solutions to a class of nonlinear dispersive equations</i> , submitted for publication. arXiv:1510.02512  J. Segata, D. L. Smith, <i>Propagation of regularity and persistence of decay for fifth order dispersive models</i> , to appear in Journal of Dynamics and Differential Equations. arXiv:1502.01796	
HONORS AND AWARDS	November 2015 AMS Graduate Student Travel Grant, \$500. November 2015 UCSB Academic Senate Travel Grant, \$685. October 2015 UCSB GSA Conference Travel Grant, \$200. 2013-2014 UCSB GSA Excellence in Teaching Award, Honorable Mention Four winners and four honorable mentions selected, 116 nominees.  2013, 2014 Departmental Fellowship (one quarter each year)	
INSTRUCTOR EXPERIENCE	Summer 2015 Math 6B, Vector Calculus and Intro to PDEs (37 students, 87%) Summer 2014 Math 6A, Vector Calculus (74 students, 79%) Spring 2013 Math 6A, Vector Calculus (129 students, 69%)  Percentages indicate a response of “excellent” in a survey to “rate the overall quality of the instructor’s teaching”. This compares with department average of 42% for graduate student instructors. <i>Detailed results available on my web page.</i>  Responsible for delivering lectures, writing exams and assigning grades. Coordinated two teaching assistants in larger courses. Homework primarily assigned using the MAA’s WebWork system. Utilized web forums to promote discussion.	

TEACHING ASSISTANT	Spring 2015	Math 124B, Fourier Series and Numerical Methods
	Winter 2014	Math 118B, Introduction to Real Analysis
	Fall 2013	Math 118A, Introduction to Real Analysis
	Fall 2012	Math 117, Methods of Analysis (grader)
	Fall 2012	Math 8, Transition to Higher Mathematics
	Fall 2011	Math 5B, Vector Calculus (renamed to Math 6A)
	Spring 2011	Math 8, Transition to Higher Mathematics
	-	Math 3A/B, Differential and Integral Calculus (six quarters)
-	Math 34A/B, Calculus for Social and Life Sciences (three quarters)	
SELECTED TALKS	<i>Propagation of regularity of solutions to quasilinear Korteweg-de Vries type equations</i> , Joint Mathematics Meetings, contributed talk, Seattle, WA. (January 2016)	
	<i>Propagation of regularity and persistence of decay for the fifth order Korteweg-de Vries equation</i> , AMS Fall Western Sectional, contributed talk, California State University, Fullerton. (October 2015)	
	<i>Control theory for the linearized Korteweg-de Vries equation</i> , GSCubed Student Seminar, University of California, Santa Barbara. (September 2015)	
	<i>The fast Fourier transform</i> , SIAM Algorithms Seminar, University of California, Santa Barbara. (October 2014)	
OUTREACH	2013–	UCSB SIAM Student Chapter <ul style="list-style-type: none"> <li>■ Served as vice-president and president.</li> <li>■ Coordinated planning of May 2015 STEMposium with two other student groups. This one-day event featured talks from graduate students in many disciplines, and undergraduate poster contest with \$2000 conference travel award. Raised \$3000 to host keynote speaker from Pfizer, provide lunch for 125+ attendees.</li> <li>■ Co-organized Fall 2014 Seminar on Algorithms in Computational Science featuring graduate student speakers from four departments. The event attracted an interdisciplinary audience of 20-30 people per week.</li> <li>■ Co-organized Spring 2014 Undergraduate Research Minisymposium.</li> </ul>
	2012–	UCSB STEEM Mentor Met weekly with small groups of transfer students in mathematics to discuss mathematical problems, course selection and employment opportunities.
	2012-2013	UCSB SIMS Graduate Workshop Leader Lead small-group discussion of course material.
	2012-2013	Organized UCSB graduate student analysis seminar
	2010–	Editor, American Mathematical Society's Graduate Student Blog
	PROFESSIONAL EXPERIENCE	2007–2010
2004-2007		Weather Officer, US Air Force