

# Daniel Schultheis

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## CONTACT INFORMATION:

Department of Mathematics

University of Arizona

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## RESEARCH:

Algebraic geometry, mathematical physics, moduli theory, Gromov-Witten invariants, Hilbert and Quot schemes.

## EMPLOYMENT:

Richard Pierce Postdoctoral Fellow, University of Arizona, 2012-present

## EDUCATION:

Ph.D. Mathematics, University of California, San Diego, June 2012

- Thesis advisor: Dragos Oprea

- Thesis title: Virtual invariants on Quot schemes over Fano surfaces

M.A. Mathematics, University of California, San Diego, June 2009

B.S. Mathematics, Physics, University of Washington, June 2007

## AWARDS and FELLOWSHIPS:

Summer Graduate Teaching Fellowship, University of California, San Diego, 2011

Teaching Assistant Excellence Award, University of California, San Diego, 2010

Mary Gates Research Fellowship, University of Washington, 2006

National Merit Scholar, 2003

## TEACHING:

Instructor, University of Arizona

- Math 215 Linear Algebra, Fall 2013

- Math 432 Topology, Spring 2013

- Math 125 Calculus, Fall 2012

Associate Instructor, UCSD

- Math 20F Linear Algebra, Summer 2011

Graduate Qualifying Exam Review Instructor, UCSD, Summer 2010

Matlab Course Assistant, UCSD, Summer 2009

Teaching Assistant, UCSD

- Math 20C Calculus, Fall 2011, Winter 2012

- Math 142B Introduction to Analysis, Spring 2011

- Math 140A Real Analysis, Fall 2010

- Math 31CH Honors Calculus, Spring 2010

- Math 20E Vector Calculus, Winter 2010

- Math 31BH Honors Calculus, Winter 2010

- Math 31AH Honors Calculus, Fall 2009

- Math 20F Linear Algebra, Spring 2009, Summer 2009, Spring 2012

- Math 20B Calculus, Winter 2009, Winter 2011

- Math 109 Mathematical Reasoning, Fall 2008

- Math 10C Calculus, Spring 2008

- Math 10B Calculus, Winter 2008

- Math 10A Calculus, Fall 2007

**PUBLICATIONS:**

*Virtual invariants on Quot schemes over Fano surfaces*, Ph.D. thesis.

*Polygonal chain sequences in the space of compact sets*, with Lisa Morales and Steven Schlicker, *Journal of Integer Sequences* 12 (2009), Article 09.1.7.

**TALKS:**

Algebraic Geometry Seminar, University of Wisconsin, Madison, October 2013

AMS Western Section Meeting, special session on algebraic geometry, University of Colorado at Boulder, April 2013

University of Arizona Algebraic Geometry Seminar, multiple talks

AMS Central Section Meeting, special session on geometry of moduli spaces of sheaves, University of Kansas, April 2012

Student Algebraic Geometry Seminar, University of Michigan, March 2011

Graduate Geometry Seminar, UCSD, multiple talks

Food for Thought Seminar, UCSD, January 2010

**CONFERENCES ATTENDED:**

Recent Advances in Algebraic Geometry (Robfest), University of Michigan, May 2013

Graduate Student Workshop on Bridgeland Stability, University of Illinois at Chicago, March 2013

Derived Algebraic Geometry Workshop, University of Michigan, May 2012

Southern California Algebraic Geometry Seminar, March 2012, November 2011, March 2011, October 2010, April 2010, November 2009

Moduli Spaces and Moduli Stacks, Columbia University, May 2011

Western Algebraic Geometry Symposium, November 2013, February 2013, October 2012, April 2012, April 2011, May 2010, October 2009

Wall-crossing in Mathematics and Physics, University of Illinois at Urbana-Champaign, May 2010

Conference on Tropical Geometry and Mirror Symmetry, UCSD, February 2010

**SERVICE:**

Active member of community math and science outreach programs Arizona Mathematics Roadshow/Physics Factory

Co-organized University of Arizona Algebraic Geometry Seminar, 2012-ongoing

Organized UCSD Graduate Geometry Seminar, 2010-2011

Assisted redesign of Matlab curriculum in undergraduate courses at UCSD, 2009

**CITIZENSHIP:**

United States