Dustin J. Ross

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Curriculum Vitae*

Employment

- 2016 - present: Assistant Professor, San Francisco State University

- 2016 - 2017: NSF Postdoctoral Fellow, San Francisco State University

- 2014 - 2016: NSF Postdoctoral Fellow, University of Michigan

- 2013 - 2014: RTG Postdoctoral Assistant Professor, University of Michigan

- 2007 - 2013: Teaching Assistant, Colorado State University

- 2008, 2012: Research Assistant, Colorado State University

Education

- 2009 - 2013: Doctor of Philosophy, Mathematics
    Colorado State University: Fort Collins, CO
    Thesis advisor: Renzo Cavalieri

- 2007 - 2009: Master of Science, Mathematics
    Colorado State University: Fort Collins, CO
    Thesis advisor: Jeanne Duflot

- 2003 - 2007: Bachelor of Art, Mathematics
    University of Northern Iowa: Cedar Falls, IA
    Thesis advisor: Adrienne Stanley
    Magna Cum Laude

Research Interests

- I am broadly interested in algebraic geometry. More specifically, my interests lie in moduli spaces, virtual enumerative geometry, curve counting invariants, and connections with mathematical physics. I am also interested in the interplay between algebraic geometry and algebraic combinatorics.

Publications (electronically available at `online.sfsu.edu/rossd`)

1. E. Clader and D. Ross: *Sigma Models and Phase Transitions for Complete Intersections*
    International Mathematical Research Notices (to appear),
    DOI: `https://doi.org/10.1093/imrn/rnx029`

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*Last update: August 7, 2017

2. D. ROSS: *Donaldson–Thomas Theory and Resolutions of Toric Transverse A-Singularities*
   Selecta Mathematica 23 (2017), no. 1, 15-37

3. D. ROSS: *On GW/DT and Ruan's Conjecture in All Genus for Calabi-Yau 3-Orbifolds*
   Communications in Mathematical Physics 340 (2015), 851-864

4. D. ROSS AND Y. RUAN: *Wall-Crossing in Genus Zero Landau-Ginzburg Theory*
   Journal für die reine und angewandte Mathematik (to appear),
       DOI: `https://doi.org/10.1515/crelle-2015-0005`

5. D. ROSS AND Z. ZONG: *Two-Partition Cyclic Hodge Integrals and Loop Schur Functions*
   Advances in Mathematics (2015), 1448-1486

6. A. BRINI, R. CAVALIERI, AND D. ROSS: *Crepant Resolutions and Open Strings*
   Journal für die reine und angewandte Mathematik (to appear),
       DOI: `https://doi.org/10.1515/crelle-2017-0011`

7. D. ROSS AND Z. ZONG: *The Gerby Gopakumar–Mariño–Vafa Formula*
   Geometry & Topology 17 (2013), 2935-2976

8. D. ROSS: *The Loop Murnaghan–Nakayama Rule*
   Journal of Algebraic Combinatorics 39 (2014), 3-15

9. D. ROSS: *Localization and Gluing of Orbifold Amplitudes: The Gromov–Witten Orbifold Vertex*
   Transactions of the American Mathematical Society 366 (2014), 1587-1620

10. R. CAVALIERI AND D. ROSS: *Open Gromov–Witten Theory and the Crepant Resolution Conjecture*
    Michigan Mathematical Journal 61 (2012), 807-837

PREPRINTS

1. S. GUO AND D. ROSS: *Genus-One Global Mirror Symmetry for the Quintic Threefold*
       Preprint: arXiv:1703.06955

2. S. GUO AND D. ROSS: *Genus-One Mirror Symmetry in the Landau-Ginzburg Model*
       Preprint: arXiv:1611.08876

INVITED CONFERENCE TALKS

1. Conference on Mirror Symmetry and Related Subjects: Kyoto University - (December 2017)
2. American Mathematical Society Sectional Meeting: UC Riverside - (November 2017)
3. Workshop on Crossing the Walls in Enumerative Geometry: Columbia University - January 2017
4. Workshop on Global Mirror Symmetry: Chern Institute of Mathematics - June 2016
5. Workshop on Moduli Spaces, Integrable Systems, and Topological Recursions: Université de Montréal - January 2016
6. Workshop on New Developments in Moduli and Geometric Invariant Theory: University of North Carolina - November 2015

7. Workshop on Moduli Spaces in Algebraic Geometry and Mathematical Physics: Chern Institute, Tianjin - September 2015
8. Western Algebraic Geometry Symposium: University of Idaho - October 2014
9. Summer School on Modern Trends in Gromov-Witten Theory: Leibniz Univsersität Hannover - September 2014
10. Workshop on Refined Invariants in Geometry, Topology, and String Theory: Banff International Research Station - June 2013
11. AMS Section Meeting, Algebraic Geometry Session: University of Colorado - April 2013
12. AMS Sectional Meeting, Algebraic Geometry Session: University of Hawaii - March 2012
13. Workshop on New Recursion Formulae and Integrablity for Calabi-Yau Spaces: Banff International Research Station - October 2011
14. Summer School on Moduli of Curves and Gromov-Witten Theory, Graduate Student Seminar: Institute Fourier-Grenoble - June 2011

Invited Seminar Talks

1. Berkeley: Algebraic Geometry and Commutative Algebra Seminar - March 2017
2. Stanford University: Algebraic Geometry Seminar - February 2017
3. University of California San Diego: Algebraic Geometry Seminar - January 2017
4. University of British Columbia: Algebraic Geometry Seminar - January 2017
5. University of Michigan: Geometry and Physics Seminar - January 2017
6. Columbia University: Mathematical Physics Seminar - February 2016
7. FRAGMENT (Joint CSU-CU-UW seminar) - February 2016
8. San Francisco State University: Colloquium - January 2016
9. University of Vermont: Colloquium - January 2016
10. ETH Zurich: Wednesday Lecture Series - November 2015
11. University of North Carolina:Algebraic Geometry Seminar - November 2015
12. University of Maryland: Algebra and Number Theory Seminar - April 2015
13. University of Utah: Algebraic Geometry Seminar - April 2015
14. Boston University: Colloquium - January 2015
15. Columbia University: Gromov–Witten seminar - November 2014
16. Harvard/MIT: Algebraic Geometry Seminar - November 2014
17. University of Michigan: Geometry and Physics Seminar - September 2014
18. University of Illinois at Urbana-Champaign: Algebraic Geometry Seminar - April 2014
19. FRAGMENT (Joint CSU-CU-UW seminar) - April 2014
20. Yale University: Algebraic Geometry Seminar - March 2014
21. Columbia University: Gromov–Witten Seminar - November 2013
22. University of Michigan: Algebraic Geometry Seminar - October 2013
23. University of Michigan: Geometry and Physics Seminar - November 2012
24. University of Michigan: Combinatorics Seminar - November 2012
25. University of Quebec: LaCIM Combinatorics Seminar - October 2012
26. Rocky Mountain Algebraic Combinatorics Seminar - October 2012
27. University of British Columbia: Algebraic Geometry Seminar - September 2012
28. FRAGMENT (Joint CSU-CU-UW seminar) - September 2012
29. Columbia University: Gromov–Witten Seminar - December 2011
30. Rocky Mountain Algebraic Combinatorics Seminar - October 2011
31. Università di Milano: Seminario di Geometria Algebrica - July 2011
32. University of Utah: Algebraic Geometry Seminar - March 2011
33. Universidad de Costa Rica: Research Seminar - February 2010

Teaching Experience

Served as primary instructor for the following courses at San Francisco State University:

- MATH 301: Explorations in Proof
    Fall 2017
- MATH 227: Calculus II
    Fall 2017
- MATH 884: Algebraic Geometry
    Spring 2017
- MATH 228: Calculus III
    Fall 2016

Served as primary instructor for the following courses at University of Michigan:

- MATH 433: Differential Geometry of Curves and Surfaces
    Winter 2015
- MATH 215: Calculus III
    Winter 2014, Fall 2014
- MATH 115: Calculus I
    Fall 2013

Served as primary instructor for the following courses at Colorado State University:

- MATH229: Matrices and Linear Algebra
    Spring 2013
- MATH340: Introduction to Ordinary Differential Equations
    Fall 2012
- MATH141: Calculus for the Management Sciences
    Summer 2011, Summer 2012
- MATH261: Calculus III for the Physical Sciences
    Spring 2012
- MATH161: Calculus II for the Physical Sciences
    Fall 2010, Spring 2011
- MATH255: Calculus II for the Biological Sciences
    Fall 2009, Spring 2010
- MATH317: Advanced Calculus of One Variable
    Summer 2009
- MATH160: Calculus I for the Physical Sciences
    Fall 2008, Spring 2009
- MATH155: Calculus I for the Biological Sciences
    Fall 2007, Spring 2008

Honors and Awards

1. Mathematical Sciences Postdoctoral Research Fellowship
    National Science Foundation, 2014 - 2017
2. Best contributed talk by a young scientist
    Workshop on Moduli Spaces in Algebraic Geometry and Physics, September 2015
3. Outstanding GTA Award
    Colorado State University, 2012

4. Graduate Teaching Assistantship
       Colorado State University, August 2007 - May 2013
5. Graduate Research Assistantship
       Colorado State University, May - August 2008
6. Presidential Scholarship
       University of Northern Iowa, August 2003 - May 2007
7. Purple and Old Gold Award for Excellence in Mathematics
       University of Northern Iowa, May 2007

Organizational Activities

1. Geometry and Topology Seminar: San Francisco State University - 2016 – present
2. Western Algebraic Geometry Symposium: San Francisco State University - (Spring 2018)
3. Conference for Young Researchers in Mirror Symmetry: University of Michigan - May 2017
4. Workshop on Global Mirror Symmetry: Chern Institute of Mathematics - June 2016
5. Summer School in Gromov-Witten Theory: Colorado State University, Pingree Park Campus - June/July 2014
6. Workshop on B-Model Aspects of Gromov-Witten Theory: University of Michigan - March 2014
7. Western Algebraic Geometry Symposium: Colorado State University - October 2011

Service

1. Served as referee for Algebraic Geometry, Annals of Combinatorics, International Mathematical Research Notices, Geometry and Topology, Journal für die reine und angewandte Mathematik, Journal of the American Mathematical Society, Memoirs of the American Mathematical Society, Science China Mathematics, Selecta Mathematica, Strings Math (conference proceedings), Workshop on Non-Abelian Gauged Linear Sigma Model (conference proceedings)
2. Served on jobs panel for finishing graduate students, University of Michigan - October 2014
3. Served as mentor to first year graduate teaching assistants, Colorado State University - August 2011
4. Volunteered at CSU Math Day for Colorado high school students, 2007-2011

Advising

1. Master's Thesis Advisor for Joel Gallegos, San Francisco State University - (2018)
2. Member of Master's Committee for John Guo, San Francisco State University - 2017
3. Member of Preliminary Committee for Ming Zhang, University of Michigan - 2015
4. Member of PhD Committee for Zhengyu Zong, Columbia University - 2014
5. Member of Preliminary Committee for Robert Silversmith, University of Michigan - 2014
6. External reader for undergraduate thesis of Olivia Beckwith, Harvey Mudd College - 2013

Outreach

1. Taught ten-hour graduate student workshop in toric geometry at Peking University - September 2015
2. Co-taught two-week mini-course in Hurwitz theory at Universidad de Costa Rica - August 2012
3. Guest lecturer at University of Northern Colorado Math Club - October 2011
4. Co-taught two-week mini-course in algebraic topology at Universidad de Costa Rica - February 2010