

## 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
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### 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
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### RESEARCH INTERESTS

- Algebraic geometry (moduli spaces, virtual enumerative geometry, curve counting invariants, connections with mathematical physics, and the interplay with algebraic combinatorics)
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### PUBLISHED PAPERS (electronically available at [online.sfsu.edu/rossd](http://online.sfsu.edu/rossd))

1. D. ROSS: *Localization and mirror symmetry*  
Contemporary Mathematics: Crossing the Walls in Enumerative Geometry (to appear)
2. S. GUO AND D. ROSS: *Genus-one mirror symmetry in the Landau-Ginzburg model*  
Algebraic Geometry (to appear)

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\*Last update: October 15, 2018

3. 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>
4. D. ROSS: *Donaldson–Thomas theory and resolutions of toric transverse A-singularities*  
Selecta Mathematica 23 (2017), no. 1, 15-37
5. 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
6. 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>
7. D. ROSS AND Z. ZONG: *Two-partition cyclic Hodge integrals and loop Schur functions*  
Advances in Mathematics (2015), 1448-1486
8. 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>
9. D. ROSS AND Z. ZONG: *The gerby Gopakumar–Mariño–Vafa formula*  
Geometry & Topology 17 (2013), 2935-2976
10. D. ROSS: *The loop Murnaghan–Nakayama rule*  
Journal of Algebraic Combinatorics 39 (2014), 3-15
11. D. ROSS: *Localization and gluing of orbifold amplitudes: The Gromov–Witten orbifold vertex*  
Transactions of the American Mathematical Society 366 (2014), 1587-1620
12. R. CAVALIERI AND D. ROSS: *Open Gromov–Witten theory and the crepant resolution conjecture*  
Michigan Mathematical Journal 61 (2012), 807-837

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#### PREPRINTS

1. D. CASTRO AND D. ROSS: *Topology of  $\mathbb{Z}_3$ -equivariant Hilbert schemes*  
Preprint: arXiv:1810.05750
2. E. CLADER AND D. ROSS: *Wall-crossing in genus-zero hybrid theory*  
Preprint: arXiv:1806.08442
3. S. GUO AND D. ROSS: *Genus-one global mirror symmetry for the quintic threefold*  
Preprint: arXiv:1703.06955

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#### INVITED CONFERENCE TALKS

1. Workshop on Moduli spaces; birational geometry and wall-crossing: Banff International Research Station - October 2018
2. Bay Area Discrete Math Days: Santa Clara University - April 2018

3. American Mathematical Society Sectional Meeting: Portland State - April 2018
4. Conference on Mirror Symmetry and Related Subjects: Kyoto University - December 2017
5. American Mathematical Society Sectional Meeting: UC Riverside - November 2017
6. Workshop on Crossing the Walls in Enumerative Geometry: Columbia University - January 2017
7. Workshop on Global Mirror Symmetry: Chern Institute of Mathematics - June 2016
8. Workshop on Moduli Spaces, Integrable Systems, and Topological Recursions: Université de Montréal - January 2016
9. Workshop on New Developments in Moduli and Geometric Invariant Theory: University of North Carolina - November 2015
10. Workshop on Moduli Spaces in Algebraic Geometry and Mathematical Physics: Chern Institute, Tianjin - September 2015
11. Western Algebraic Geometry Symposium: University of Idaho - October 2014
12. Summer School on Modern Trends in Gromov-Witten Theory: Leibniz Universität Hannover - September 2014
13. Workshop on Refined Invariants in Geometry, Topology, and String Theory: Banff International Research Station - June 2013
14. AMS Section Meeting, Algebraic Geometry Session: University of Colorado - April 2013
15. AMS Sectional Meeting, Algebraic Geometry Session: University of Hawaii - March 2012
16. Workshop on New Recursion Formulae and Integrability for Calabi-Yau Spaces: Banff International Research Station - October 2011
17. Summer School on Moduli of Curves and Gromov-Witten Theory, Graduate Student Seminar: Institute Fourier-Grenoble - June 2011

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#### INVITED SEMINAR TALKS

1. Santa Clara University: Colloquium - November 2018
2. San Quentin State Prison: Math Circle - October 2018
3. San Jose State University: Colloquium - September 2018
4. MSRI: Enumerative Geometry Beyond Numbers Seminar - April 2018
5. Berkeley: Algebraic Geometry and Commutative Algebra Seminar - March 2017
6. Stanford University: Algebraic Geometry Seminar - February 2017
7. University of California San Diego: Algebraic Geometry Seminar - January 2017
8. University of British Columbia: Algebraic Geometry Seminar - January 2017
9. University of Michigan: Geometry and Physics Seminar - January 2017
10. Columbia University: Mathematical Physics Seminar - February 2016
11. FRAGMENT (Joint CSU-CU-UW seminar) - February 2016
12. San Francisco State University: Colloquium - January 2016
13. University of Vermont: Colloquium - January 2016
14. ETH Zurich: Wednesday Lecture Series - November 2015
15. University of North Carolina: Algebraic Geometry Seminar - November 2015
16. University of Maryland: Algebra and Number Theory Seminar - April 2015
17. University of Utah: Algebraic Geometry Seminar - April 2015
18. Boston University: Colloquium - January 2015
19. Columbia University: Gromov–Witten seminar - November 2014
20. Harvard/MIT: Algebraic Geometry Seminar - November 2014
21. University of Michigan: Geometry and Physics Seminar - September 2014
22. University of Illinois at Urbana-Champaign: Algebraic Geometry Seminar - April 2014
23. FRAGMENT (Joint CSU-CU-UW seminar) - April 2014
24. Yale University: Algebraic Geometry Seminar - March 2014
25. Columbia University: Gromov–Witten Seminar - November 2013

26. University of Michigan: Algebraic Geometry Seminar - October 2013
27. University of Michigan: Geometry and Physics Seminar - November 2012
28. University of Michigan: Combinatorics Seminar - November 2012
29. University of Quebec: LaCIM Combinatorics Seminar - October 2012
30. Rocky Mountain Algebraic Combinatorics Seminar - October 2012
31. University of British Columbia: Algebraic Geometry Seminar - September 2012
32. FRAGMENT (Joint CSU-CU-UW seminar) - September 2012
33. Columbia University: Gromov–Witten Seminar - December 2011
34. Rocky Mountain Algebraic Combinatorics Seminar - October 2011
35. Università di Milano: Seminario di Geometria Algebrica - July 2011
36. University of Utah: Algebraic Geometry Seminar - March 2011
37. Universidad de Costa Rica: Research Seminar - February 2010

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#### MINI-COURSES

1. Taught five-hour graduate student course on localization and mirror theorems at Snowbird workshop: Crossing the Walls in Enumerative Geometry - May 2018
2. Taught ten-hour graduate student workshop in toric geometry at Peking University - September 2015
3. Co-taught two-week mini-course in Hurwitz theory at Universidad de Costa Rica - August 2012
4. Co-taught two-week mini-course in algebraic topology at Universidad de Costa Rica - February 2010

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#### TEACHING EXPERIENCE

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

- MATH 435/735: Modern Algebra II  
Fall 2018
- MATH 301: Exploration and Proof  
Fall 2017, Spring 2018, Fall 2018
- 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
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#### ADVISING

1. Master's thesis advisor: Elzbieta Polak, California State University, East Bay - expected 2019
  2. Master's thesis advisor: Rose Johnson-Leiva, San Francisco State University - expected 2019
  3. Master's thesis advisor: Joel Gallegos, San Francisco State University - 2018
  4. Master's thesis advisor: Deborah Castro, San Francisco State University - 2018
  5. Member of master's committee: Kyla Quinn, San Francisco State University - 2018
  6. Member of master's committee: John Guo, San Francisco State University - 2017
  7. Member of preliminary committee: Ming Zhang, University of Michigan - 2015
  8. Member of PhD committee: Zhengyu Zong, Columbia University - 2014
  9. Member of preliminary committee: Robert Silversmith, University of Michigan - 2014
  10. External reader for undergraduate thesis: Olivia Beckwith, Harvey Mudd College - 2013
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#### ORGANIZATIONAL ACTIVITIES

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

- Served as referee for Algebraic Geometry, Annals of Combinatorics, International Mathematical Research Notices, Inventiones Mathematicae, Geometry and Topology, Journal für die reine und angewandte Mathematik, Journal of the American Mathematical Society, Memoirs of the American Mathematical Society, Michigan Mathematical Journal, Science China Mathematics,

Selecta Mathematica, Strings Math (conference proceedings), Workshop on Non-Abelian Gauged Linear Sigma Model (conference proceedings)