

ERIC ZASLOW

Dept. of Mathematics, Northwestern University
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Research Areas

Mathematical Physics; Mirror Symmetry.

Education

Harvard University, Ph.D., Physics, 1995.

Harvard University, M.A. (*en route*), Physics, 1990.

Dartmouth College, A.M., Physics, 1989.

Dartmouth College, A.B., Mathematics and Physics double major, 1989.

Appointments

Professor of Mathematics, **Northwestern** University, 2006—

PIMS Visiting Distinguished Professor, **PIMS-UBC**, 7-12/2008

Associate Professor of Mathematics, **Northwestern** University, 2002–2006.

Visiting Member, **The Fields Institute**, 11/2004, 5–7/2005.

Assistant Professor (math), **Northwestern** University, 1998–2002.

Postdoctoral Fellow (math), **Harvard** University, 1995–1998.

Visiting Assistant Professor of Physics, **Dartmouth** College, 1995.

Advisors and Advisees

Graduate Advisor: Cumrun Vafa (Harvard, physics)

Postdoctoral Advisor: Shing-Tung Yau (Harvard, math)

Student Advisees: Marco Aldi (Ph.D., 2007), Bohan Fang (Ph.D., 2010), Nicolo' Sibilla, Xin Jin

Postdoctoral Advisees: Sema Salur, Jiun-Cheng Chen, Cheol-Hyun Cho, Sergiy Koshkin, Gabriel Kerr, David Treumann

Honors and Awards

- ISP Faculty Service Award (Northwestern), 2010
- Co-P.I. (with E. Getzler and B. Tsygan) for NSF-DMS-0636646, “EMSW21-RTG Geometry and Physics,” \$1,300,000, 2007—
- P.I. for NSF-DMS-0707064, “Microlocalization and Mirror Symmetry,” \$186,000, 2007—
- Clay Senior Scholar, \$20,000 award, 2004–2005.
- P.I. for NSF Grant DMS-0405859, “Geometry of Mirror Symmetry,” \$116,000, 2004–2007.
- Co-P.I. for NSF-DMS-0401953, “Geometry and Topology of Mirror Symmetry,” \$30,000, 2004.
- Faculty Honor Roll (Northwestern), 2003.
- Weinberg College (Northwestern) Distinguished Teaching Award, 2001.
- Alfred P. Sloan Foundation Fellowship, \$40,000, 2000–2004
- P.I. for NSF-DMS-0072504, “Unifying Mirror Symmetry,” \$85,000, 2000–2004
- Hertz Foundation Graduate Fellowship, 1989–1995.

Service

Organized: Geometry and Topology of String Theory (Emphasis Year program and conference at Northwestern, 2004), Geometry of Lagrangian Submanifolds (IPAM, 2003), Great Lakes Geometry Conference (Northwestern, 2001), Duality Workshop (KITP, 2001).

University Committees: Tenure Committee, Curricular Policy Committee, Ad Hoc Promotion and Tenure Committee, Goldwater Scholarship Committee, ISP Committee, search committees in physics and school of education.

University Committees: Graduate Committee Chair, Budget Committee, others.

Courses Taught: Calculus, Differential Equations, Linear Algebra, Group Theory and Complex Analysis, Fourier Series, Differential Geometry, Complex Manifolds, Riemann Surfaces, Mirror Symmetry.

Other

I am active in the sport of ultimate. I have served on the Board of the Ultimate Players Association. I have written *Ultimate: Tactics and Techniques* (Human Kinetics). As a player I have won seven world or national championships.

Publications

1. B. Fang, C.-C. Liu, D. Treumann and E. Zaslow, “A Categorification of Morelli’s Theorem,” arXiv:1007.0053, submitted.
2. B. Fang, C.-C. Liu, D. Treumann and E. Zaslow, “The Coherent-Constructible Correspondence for Toric Deligne-Mumford Stacks,” arXiv:0911.4711.
3. B. Fang, C.-C. Liu, D. Treumann and E. Zaslow, “The Coherent-Constructible Correspondence and Homological Mirror Symmetry for Toric Varieties,” arXiv:0901.4276, submitted.
4. B. Fang, C.-C. Liu, D. Treumann and E. Zaslow, “T-Duality and Equivariant Homological Mirror Symmetry for Toric Varieties,” arXiv:0811.1228, submitted.
5. D. Nadler and E. Zaslow, “Constructible Sheaves and the Fukaya Category,” *J. Amer. Math. Soc.* **22** (2009) 233–286.
6. E. Zaslow “Mirror Symmetry,” in *Princeton Companion to Mathematics*, T. Gowers, ed., Princeton University Press, Princeton, 2008.
7. E. Zaslow “Calabi-Yau Manifolds,” in *Princeton Companion to Mathematics*, T. Gowers, ed., Princeton University Press, Princeton, 2008.
8. M. Aldi and E. Zaslow, “Seidel’s Mirror Map for Abelian Varieties,” *Adv. Theor. Math. Phys.* **10** (2006) 591–602.
9. E. Zaslow, “Seidel’s Mirror Map for the Torus,” *Adv. Theor. Math. Phys.* **9** (2005) 999–1006.
10. E. Zaslow, “Phsymatics,” published on the Website of the Clay Mathematics Institute, claymath.org; physics/0506153.
11. M. Aldi and E. Zaslow, “Coisotropic Branes, Noncommutativity, and the Mirror Correspondence,” *JHEP* **2005**, no. 6, 019–032.
12. J. Loftin, S.-T. Yau, and E. Zaslow, “Affine Manifolds, SYZ Geometry, and the ‘Y’ Vertex,” *J. Differential Geom.* **71** (2005) 129–158.
13. A. Abrams, H. Landau, Z. Landau, J. Pommersheim, and E. Zaslow, “Random Multiplication Approaches Uniform Measure in Finite Groups,” *Journal of Theoretical Probability* **20** (2007) 107–118.
14. A. Abrams, H. Landau, Z. Landau, J. Pommersheim, and E. Zaslow, “Optimal Estimators for Threshold-Based Quality Measures,” submitted.
15. S. Gukov, S.-T. Yau, and E. Zaslow, “Duality and Fibrations of G_2 Manifolds,” *Turkish Journal of Mathematics* **27** (2003) 61–97.
16. T. Graber and E. Zaslow, “Open-String Gromov-Witten Invariants: Calculations and a Mirror ‘Theorem,’” in *Orbifolds in Mathematics and Physics* (Madison, WI, 2001), 107–121, *Contemp. Math.* **310**, AMS, Providence, RI, 2002.
17. *Mirror Symmetry*. Clay Mathematics Monographs, Vol. **1**, Cumrun Vafa and Eric Zaslow, eds., AMS-CMI, Providence, 2003. (This book received a featured review in Math Reviews.)
18. N.-C. Leung, S.-T. Yau, and E. Zaslow, “From Special Lagrangian to Hermitian-Yang-Mills via Real Fourier-Mukai Transform,” math.DG/0005118; in *Winter School on Mirror Symmetry, Vector Bundles and Lagrangian Submanifolds*, C. Vafa and S.-T. Yau, eds., AMS and International Press, Boston, 2001.
19. A. Abrams, H. Landau, Z. Landau, J. Pommersheim, and E. Zaslow, “An Iterated Random Function with Lipschitz Number One,” to be published in *Theory of Probability and its Applications*.

20. A. Klemm and E. Zaslow, "Local Mirror Symmetry at Higher Genus," hep-th/9906046; in *Winter School on Mirror Symmetry, Vector Bundles and Lagrangian Submanifolds*, C. Vafa and S.-T. Yau, eds., AMS and International Press, Boston, 2001.
21. A. Abrams, H. Landau, Z. Landau, J. Pommersheim, and E. Zaslow, "Evasive Random Walks and the Clairvoyant Demon," *Random Structures & Algorithms* **20** (2002) 239-248.
22. T.-M. Chiang, A. Klemm, S.-T. Yau, and E. Zaslow, "Local Mirror Symmetry: Calculations and Interpretations," hep-th/9903053; *Advances in Theoretical and Mathematical Physics* **3** (1999).
23. A. Polishchuk and E. Zaslow, "Categorical Mirror Symmetry: The Elliptic Curve," *Advances in Theoretical and Mathematical Physics* **2** (1998) 443-470; math.AG/9801119.
24. A. Strominger, S.-T. Yau, and E. Zaslow, "Mirror Symmetry is T-Duality," *Nuclear Physics* **B479** (1996) 243-259; hep-th/9606040.
25. Shing-Tung Yau and Eric Zaslow, "BPS States as Symplectic Invariants from String Theory," in *Geometry and Physics*, Proceedings of the Special Session on Geometry and Physics, Aarhus, Denmark, 1996.
26. Shing-Tung Yau and Eric Zaslow, "BPS States, String Duality, and Nodal Curves on $K3$," *Nuclear Physics* **B471** (1996), hep-th/9512121.
27. S. Sethi, M. Stern, and E. Zaslow, "Monopole and Dyon Bound States in $N=2$ Supersymmetric Yang-Mills Theories," *Nuclear Physics* **B457** (1995) 484.
28. E. Zaslow, "Solitons and Helices: The Search for a Math-Physics Bridge," *Communications in Mathematical Physics* **175** (1996) 337.
29. E. Zaslow, "Dynkin Diagrams of \mathbf{CP}^1 Orbifolds," *Nuclear Physics* **B415** (1994) 155.
30. E. Zaslow, "Topological Orbifold Models and Quantum Cohomology Rings," *Communications in Mathematical Physics* **156** (1993) 301.
31. L. Balents, R. D. Kamien, P. Le Doussal, and E. Zaslow, "On the Isotropic-Nematic Transition for Polymers in Liquid Crystals," *Journal de Physique* **2** (1992) 263.