

Douglas S. Martin

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Education

- 1997 - 2003 University of Texas at Austin
Ph.D. in Physics, Thesis Advisors: Josef Käs; Harry Swinney
- 1993 - 1997 Pomona College
B.A. in Physics and Mathematics, *cum laude*

Professional Appointments

- 2007 - Assistant Professor of Physics, Lawrence University
- 2003 - 2007 Postdoctoral Fellow, Brandeis University
- 2005 Adjunct Professor, Simmons College
- 2001-2002 Graduate Teaching Assistant, University of Texas

Grants, Awards, and Fellowships

- 2009 Research Corporation for Scientific Advancement CCSA Grant, "Measuring the bending stiffness of microtubules with varying protofilament number," \$39,574.
- 2005 NIH NRSA Individual Postdoctoral Fellowship, "Biophysics of kinesin motion by single-pair FRET"
- 2004 NIH NRSA Institutional Postdoctoral Fellowship
- 1998 NSF IGERT Fellowship
- 1997 University of Texas Research Internship
- 1996 SIAM and MAA winner of the Mathematical Contest in Modeling

Publications (underlining indicates undergraduate research student)

Journal Articles

- Forstner, M. B., Martin, D. S., Selle, C., Kas, J. A. "Attractive membrane domains control lateral diffusion," *Phys Rev E* **77** 151906 (2008).
- Selle, C., Ruckerl, F., Martin, D. S., Forstner, M. B., Kas, J. A., "Measurement of diffusion in Langmuir monolayers by single-particle tracking," *Phys Chem Chem Phys* **6(24)**: 5535 (2004).
- Forstner, M. B., Martin, D. S., Navar, A. M., Kas J. A., "Simultaneous Single Particle Tracking and Visualization of Domain Structure on Lipid Monolayers," *Langmuir* **19(12)**: 4876 (2003).
- Martin, D. S., Forstner, M. B., Kas J. A., "Apparent Subdiffusion Inherent to Single Particle Tracking," *Biophys J*, **83**: 2109 (2002).
- Forstner, M. B., Kas, J., Martin, D., "Single Lipid Diffusion in Langmuir Monolayers," *Langmuir*, **17(3)**: 567 (2001).
- Martin, D., Moody, R., Wong, W., "The Submarine Detection Problem: Gone Fishin'," *UMAP J*, **17**: 207 (1996).

Colloquia, Conference Presentations, and Abstracts

Martin D. S., "A fluorescent look at kinesin: Using biological physics to study a nanometer scale engine," Marquette University Physics Colloquium March, 2008.

Martin D. S., Mitchison, T. J., Gelles J., "Kinesin Neck Orientation Determined by Neck-Microtubule Fluorescence Resonance Energy Transfer," *Biophysical Journal* 498A Supplement S (2007).

Martin D. S., "Structure and function of kinesin: a fluorescent look at a molecular motor," Williams College Physics Colloquium October, 2006.

Martin D. S., "Speed and Propagation of Diffusive Signals in Spatially Inhomogeneous Membranes," Brandeis University Condensed Matter Seminar March 17, 2004.

Martin D. S., Ruckerl F., Forstner M. B., Bordag N., Käs J. A., Selle C., "Single-Particle Diffusion in Monolayers as Biomimetic Membranes," *Biophysical Journal* **86(1)** 369A Part 2 (2004).

Martin D., Forstner M. B., Navar A. M., Käs J., "Edge Crawling of Single Particles in Inhomogeneous Membranes," *Biophysical Journal* **84(2)**: 375A Part 2 (2003).

Martin D., Forstner M., Käs J., "Motion of Single Lipids in a Langmuir Monolayer," *Biophysical Journal*, **78(1)**: 273A Part 2 (2000).

Martin D., Forstner M., Käs J., "Single Particle Tracking: Brownian and Subdiffusive Motion in the Fluid-Crystalline Coexistence Phase of Langmuir Monolayers," *Bulletin of the American Physical Society*, **44(1)**: 1935 Part II (1999).

Professional Memberships

American Physical Society, Biophysical Society, Sigma Xi