Saurabh Mogre

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Summary

Education

2015– **Ph.D. in Physics,** *University of California, San Diego.*
Biological Physics of Intracellular Transport. with Prof. Elena Koslover.

2014–2015 **M.Tech. in Physics,** *Indian Institute of Technology Bombay.*
Thesis: "Contractile Forces due to Membrane Proteins." Advisor: Prof. Anirban Sain.

2010–2014 **B.Tech. in Physics,** *Indian Institute of Technology Bombay.*
Minor in Biological Sciences and Bioengineering.
Summer research on cosmic ray detection with Prof. Pradeep Sarin.

Awards and fellowships

2019 Chairs Challenge Travel Award, *Department of Physics, UCSD.*

2018– Pre-doctoral Fellowship, *Visible Molecular Cell Consortium (VMCC) and Center for Trans-Scale Biology and Biophysics (CTSBB)*

2015–2016 Physics Excellence Fellowship, *Department of Physics, UCSD*

2015 Travel Award for the Kyoto Winter School of Statistical Physics, *Yukawa Institute for Theoretical Physics.*

2011–2014 Heritage Fund Scholarship, *Indian Institute of Technology Bombay.*

Publications

2019 Hitching a Ride: Mechanics of transport initation through linker mediated hitchhiking.
S.S. Mogre, J.R. Christensen, S.L. Reck-Peterson, and E.F. Koslover. *submitted to Biophys. J.*

2018 Multimodal transport and dispersion of organelles in narrow tubular cells.
S. Mogre and E.F. Koslover. *Phys. Rev. E* 97, 042402

2014 Diffusion coefficients in leaflets of bilayer membranes.
K. Seki, **S. Mogre** and S. Komura. *Phys. Rev. E* 89, 022713

Talks and posters

2019 Non-canonical interactions in intracellular transport: Investigating the physical mechanisms of hitchhiking and tethering.
Poster at the 2019 ASCB|EMBO *Meeting, Washington, DC.*

2018 Characterizing active runs, tethering, and hitchhiking in intracellular transport
Poster at the 2018 ASCB|EMBO *Meeting, San Diego.*

2018 The Interplay of Diffusion, Motor-Driven Walks, and Tethering in Intracellular Transport.
Platform talk at the Biophysical Society Annual Meeting 2018, San Francisco.

Teaching Experience

University of California, San Diego

2018	Teaching Assistant, PHYS 130A, *Quantum Physics 1* with Prof. Cliff Surko.
2017	Teaching Assistant, PHYS 1A, *Mechanics* with Prof. Elena Koslover.
2017	Teaching Assistant, PHYS 2D, *Relativity and Quantum Physics* with Prof. Jorge Hirsch.
2016	Teaching Assistant, PHYS 100A, *Electromagnetism 1* with Prof. Elizabeth Jenkins.
2016	Grader, PHYS 175/275, *Introduction to Biological Physics* with Prof. Olga Dudko.
2016	Teaching Assistant, PHYS 2B, *Electricity and Magnetism* with Prof. Alex Groisman.
2016	Teaching Assistant, PHYS 2D, *Relativity and Quantum Physics* with Prof. Jorge Hirsch.

Indian Institute of Technology Bombay

2015	Teaching Assistant, *Digital Electronics Lab* with Prof. Pradeep Sarin.
2014	Teaching Assistant, *Electricity and Magnetism* with Prof. Uma Sankar.
2014	Teaching Assistant, *Introduction to Biophysics* with Prof. Ranjith Padinhateeri.

Advising Experience

2018	Research Scholars Summer Project, *University of California, San Diego.* Advisee: James Ni. Project: "Analysis and Characterization of Organelle Trajectories in the Cytoplasm."
2017	Research facilitator for the Advanced Research Training Course: "Physical Biology of the Cell" at the *Marine Biological Laboratory, Woods Hole.* Advisees: Jamie Hibbard and Kim Vendel.

Volunteering Experience

2018	Volunteer for the Tech Trek summer camp, *University of Californa, San Diego.*
2014–2015	Institute Student Mentor, *Indian Institute of Technology Bombay.*

Workshops

2019	Cell Modeling Hackathon, *University of California, San Francisco.*
2018	Commmunicating Science Convention, San Diego (ComSciCon-SD), *University of California, San Diego.*
2015	Kyoto Winter School for Statistical Physics, *Yukawa Institute for Theoretical Physics.*