

JON KARL SIGURDSSON

CURRICULUM VITAE

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EDUCATION

Ph.D. Mathematics	University of California, Santa Barbara	2013
	• Advisor: Paul J. Atzberger	
M.S. Mathematics	University of California, Santa Barbara	2010
B.S. Mathematics	University of Iceland, Reykjavik	2006

PUBLICATIONS

Shape matters in protein mobility within membranes, François Quemeneur, Jon K. Sigurdsson, Marianne Renner, Paul J. Atzberger, Patricia Bassereau and David Lacoste, PNAS, vol. 111 nr. 14 (2014), pp. 5083-5087.

First-Passage Kinetic Monte Carlo Methods for Reaction-Drift-Diffusion Processes, Ava J. Mauro, Jon K. Sigurdsson, Justin Shrake, Paul J. Atzberger, Samuel A. Isaacson, Journal of Computational Physics, 259 (2014), pp. 536–567.

Hybrid Continuum-Particle Method for Fluctuating Lipid Bilayer Membranes with Diffusing Protein Inclusions, Jon K. Sigurdsson, Frank L.H. Brown and Paul J. Atzberger, Journal of Computational Physics, 252 (2013), pp. 65-85.

Dynamic implicit-solvent coarse-grained models of lipid bilayer membranes : Fluctuating hydrodynamics thermostat, Yaohong Wang, Jon K. Sigurdsson, Erik Brandt, and Paul J. Atzberger, Physical Review E, 88 (2013), pp. 023301–.

TALKS

Lipid Bilayer Membranes : Numerical Methods,
Non-Equilibrium Statistical Mechanics and Soft Matter Group, Tel Aviv University, Israel 2013

Fluctuating Lipid Bilayer Membranes with Diffusing Protein Inclusions :
Hybrid Continuum-Particle Numerical Methods,
SIAM Conference on Computational Science and Engineering, Boston 2013

Fluctuating Lipid Bilayer Membranes with Diffusing Protein Inclusions : Hybrid Continuum-
Particle Numerical Methods, Mathematical Biology Seminar, University of Utah 2012

Fluctuating Lipid Bilayer Membranes With Diffusing Protein Inclusions: Hybrid
Continuum-Particle Model, APS March Meeting, Boston 2012

POSTER PRESENTATIONS

- Fluctuating Lipid Bilayer Membranes with Diffusing Protein Inclusions :
Hybrid Continuum-Particle Numerical Methods,
SIAM Conference on Computational Science and Engineering 2013
- Fluctuating Lipid Bilayer Membranes with Diffusing Protein Inclusions : Hybrid Continuum-
Particle Model, KITP workshop, Santa Barbara 2012
- Fluctuating Lipid Bilayer Membranes with Diffusing Protein Inclusions : Hybrid Continuum-
Particle Model, South California Simulations in Science Conference, Santa Barbara 2012
- Effective stiffness of lipid bilayer membranes with protein inclusions, 12th Annual UC
Systemwide Bioengineering Symposium, Santa Barbara 2011

PROFESSIONAL EXPERIENCE

- Risk Management Quant at Landsbanki 2006-2007
- Optimizing production line in the factory of the Icelandic Export Center Ltd. Summers 2002-2006
- Fishing guide at Haffjardara River Summers 2002-2006

TEACHING

Teaching Assistant at UCSB

- Head TA for Math 34B, Calculus for Social and Life Sciences Spring 2012
- Math 104B, Numerical Analysis Winter 2012
- Math 104A, Numerical Analysis Fall 2011
- Math 118C, Introduction to Real Analysis Spring 2011
- Math 118B, Introduction to Real Analysis Winter 2011
- Math 118A, Introduction to Real Analysis Fall 2010
- Math 34A, Calculus for Social and Life Sciences Winter 2010
- Math 124A, Partial Differential Equations Winter 2010
- Math 34A, Calculus for Social and Life Sciences Fall 2009
- Math 124B, Partial Differential Equations Spring 2009
- Math 34B, Calculus for Social and Life Sciences Winter 2009
- Math 34A, Calculus for Social and Life Sciences Fall 2007

Math Circle at UCSB

- Affine Geometry Winter 2011
- Mathematical Induction Fall 2010

Teaching Assistant at University of Iceland

- Calculus IIIB, Complex Analysis for Engineering Students Fall 2005
- Calculus IB, One Variable Calculus for Engineering Students Fall 2004