Srinivas Gorur-Shandilya

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(updated November 2018)

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Education

Ph.D.	2017	Yale University, USA. Thesis advisor: Thierry Emonet.
M.Sc.	2010	University of Göttingen, Germany.
B.Sc.	2008	St. Stephen's College, University of Delhi, India.

Research Experience

Aug. 2017 - present	Post-doctoral researcher with Eve Marder at the Volen Center for Complex Systems, Brandeis University.
Jan. 2011 - Jul. 2017	Ph.D. research, Yale University. I worked with Thierry Emonet, and discovered novel features of adaptation in *Drosophila* olfactory sensory neurons.
Sep. 2009 - Aug. 2010	Research Assistant, Max Planck Institute for Nonlinear Dynamics and Self-Organisation, Göttingen, Germany. Working with Marc Timme, I developed a method for reconstructing networks from observations of their dynamics.

Professional Activities and Awards

ah-hoc reviewer, *Scientific Reports, New Journal of Physics* and *Europhysics Letters*

* Presenters' Travel Grant, Cosyne, USA (2016)
* Conference Travel Fellowship, Graduate Student Assembly, Yale University, USA (2015)
* Anne S. And William H. Macmillian Fellowship, Yale University, USA (2011-2013)
* Editor's selection in "Highlights of 2011" for first-author paper in *New Journal of Physics*
* Research Fellowship, Max Plank Society, Germany (2009-2010)
* Fellowship from the Excellence Foundation for the Promotion of the Max Planck Society, Max Plank Society, Germany (2008-2009)
* KVPY Fellowship, The Department of Science and Technology, India (2005-2008)

Peer-reviewed publications

1. **S Gorur-Shandilya**[1]**,** A Hoyland[1], Eve Marder. (2018) "Xolotl: An Intuitive and Approachable Neuron and Network Simulator for Research and Teaching" *Frontiers in Neuroinformatics* 12 ([1] = equal contribution)

2. P Bronk, EA Kuklin, **S Gorur-Shandilya**, C Liu, TD Wiggin, ML Reed, E Marder, LC Griffith. (2018) "Regulation of Eag by calcium/calmodulin controls presynaptic excitability in *Drosophila*" *Journal of Neurophysiology* 10.1152

3. **S Gorur-Shandilya**[1], M Demir[1], J Long, DA Clark and T Emonet (2017) "Olfactory receptor neurons use gain control and complementary kinetics to encode intermittent odorant stimuli" *eLife* 6 ([1] = equal contribution)

4. D Raccuglia, LY McCurdy, M Demir, **S Gorur-Shandilya**, M Kunst, T Emonet, and M Nitabach. (2016) "Temporal contrast enhancement in the *Drosophila* olfactory system regulates behavioral responses to plume-like stimuli" *eNeuro* 3(4)

5. T-W Koh, Z He, **S Gorur-Shandilya**, K Menuz, NK Larter, S Stewart and JR Carlson. (2014) "The *Drosophila* IR20a Clade of Ionotropic Receptors Are Candidate Taste and Pheromone Receptors" *Neuron* 83(4)

6. **S Gorur-Shandilya** and M Timme. (2011) "Inferring Network Topology from Complex Dynamics" *The New Journal of Physics* 13(1)

Public Talks

"Sequential gain control in *Drosophila* olfactory receptor neurons." Accepted talk at Sense2Synapse, New York, USA. (2016)

"Topology Predicts Dynamics; Dynamics Constrain Topology." Invited talk at SIAM Conference on Applications of Dynamical Systems (DS15), Snowbird, USA. (2015)

"Why is anything the way it is?" Accepted lightning talk at the 30th Chaos Communication Congress (30C3), Hamburg, Germany. (2013)

Teaching

Teaching Fellow for Dynamical Systems in Biology (MCDB 361) at Yale University, taught by Profs. Thierry Emonet, Damon Clark and Jonathan Howard (2014)

Teaching Fellow for Neurobiology (MCDB 320a) at Yale University, taught by Profs. Haig Keshishian and Paul Forscher. (2010)

Projects & Code

xolotl, a fast, flexible and interactive neuron and network simulator written in C++. Free software, available at https://github.com/sg-s/xolotl

kontroller, a MATLAB toolbox for data acquisition and control of experiments. Free software, available at https://github.com/sg-s/kontroller

crabsort, a general-purpose multi-channel extracellular spike sorter with machine learning. Free software, available at https://github.com/sg-s/crabsort

Other projects and code available at https://github.com/sg-s/