Srinivas Gorur-Shandilya

NRSA Postdoctoral Fellow, Brandeis University

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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 Positions

2018-present. NRSA Postdoctoral Fellow in Eve Marder's Lab, Brandeis University, USA.

2017-2018. Postdoctoral Associate in Eve Marder's Lab, Brandeis University, USA.

2010-2017. Graduate student at Yale University, USA.

2009-2010. Research Fellow at the Max Planck Institute for Nonlinear Dynamics and Self-Organisation, Göttingen, Germany.

Professional Activities and Awards

ah-hoc reviewer, *Scientific Reports, New Journal of Physics* and *Europhysics Letters*
Fellow at the Scientific Communications Laboratory, Brandeis University

* Accepted into the Junior Scientist Workshop on Theoretical Neuroscience, Howard Hughes Medical Institute, USA (2019)
* Named Distinguished Referee by the European Physical Society (2018)
* 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)

Manuscripts

1. **Gorur-Shandilya**, Martelli, Demir and Emonet. (2019) "Controlling and measuring dynamic odorant stimuli in the laboratory " under review at the *Journal of Experimental Biology*

2. **Gorur-Shandilya**, Marder and O'Leary. (2019) "Compensation of size change coexists with sensitivity to perturbations in a model of neuronal homeostasis" preprint available on the *bioRxiv* https://www.biorxiv.org/content/10.1101/753608

Peer-reviewed publications

1. **Gorur-Shandilya†,** Hoyland† and Marder. (2018) "Xolotl: An Intuitive and Approachable Neuron and Network Simulator for Research and Teaching" *Frontiers in Neuroinformatics* 12 († = equal contribution)
2. Bronk, Kuklin, **Gorur-Shandilya**, Liu, Wiggin, Reed, Marder and Griffith. (2018) "Regulation of Eag by calcium/calmodulin controls presynaptic excitability in *Drosophila*" *Journal of Neurophysiology* 10.1152
3. **Gorur-Shandilya†**, Demir†, Long, Clark and Emonet (2017) "Olfactory receptor neurons use gain control and complementary kinetics to encode intermittent odorant stimuli" *eLife* 6 († = equal contribution)
4. Raccuglia, McCurdy, Demir, **Gorur-Shandilya**, Kunst, Emonet and Nitabach. (2016) "Temporal contrast enhancement in the *Drosophila* olfactory system regulates behavioral responses to plume-like stimuli" *eNeuro* 3(4)
5. Koh, He, **Gorur-Shandilya**, Menuz, Larter, Stewart and Carlson. (2014) "The *Drosophila* IR20a Clade of Ionotropic Receptors Are Candidate Taste and Pheromone Receptors" *Neuron* 83(4)
6. **Gorur-Shandilya** and 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

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/