ROHAN MEHTA

2700 E College Ave, Apt 319, Decatur GA 30030
(949)293-5566 ⋄ rohan_sushrut_mehta@emory.edu

EDUCATION

Stanford University 09/2014-01/2019
PhD in Biology (Advisor: Noah Rosenberg)
Thesis: Mathematical modeling of genetic and cultural traits
University of California, San Diego 09/2009-06/2013
B.S. in Biology Honors
B.S. in Mathematics
Visiting Researcher, University of Canterbury (with Mike Steel) 09/2018-11/2018
Complex Systems Summer School, Santa Fe Institute 06/2014-07/2014

GRANTS AND FELLOWSHIPS

Graduate Fellowship, Center for Computational, Evolutionary, and Human Genomics, Stanford University 09/2017 - 09/2018
Eco-Evo Travel Grant, Department of Biology, Stanford University 2017, 2018
David and Lucile Packard Foundation Fellowship 09/2014 - 09/2017
EDGE (Educating and Developing Workers for the Green Economy) Internship Spring 2012
Regents Scholarship, University of California, San Diego 09/2009-06/2013

HONORS AND ACHIEVEMENTS

Samuel Karlin Prize in Mathematical Biology, Stanford University 06/2019
Best Video, Complexity Challenge, Santa Fe Institute Spring 2018
Honorable Mention, Complexity Challenge, Santa Fe Institute Fall 2017, Spring 2018
Excellence in Teaching Award, Department of Biology, Stanford University Spring 2015
Honorable Mention, Graduate Research Fellowship Program, National Science Foundation 02/2014
Phi Beta Kappa, University of California, San Diego 06/2012

UNDERGRADUATE RESEARCH

Developed techniques for measuring bacterial cell fluorescence from images of bacterial colonies (Advisor: Lin Chao) 2012-2013
Performed experiments and collected diversity data for algal competition studies (Advisor: Jonathan Shurin) 2011-2012
Analyzed stable isotope data of rat diets in the Aleutian islands (Advisor: Carolyn Kurle) 2011

PRESENTATIONS

Poster for Evolution of Complex Life, Georgia Institute of Technology: *Local context and the evolution of cooperation* 05/2019
Talk for Phylomania, University of Tasmania : *The probability of monophyly of a sample of gene lineages on a species tree.* 11/2018
Poster for Society for Molecular Biology and Evolution, Yokohama: *Properties of haplotype-based Fst computed as a function of haplotype length* 07/2018
Poster for Feldmania II Symposium, Stanford University : *Modeling anti-vaccine sentiment as a cultural parasite.* 11/2017
Talk for Evolution, Portland: *The probability of monophyly of a sample of gene lineages on a species tree.* 06/2017

Talk for Mathematical and Computational Evolutionary Biology, Hyeres: *The probability of monophyly of a sample of gene lineages on a species tree.* 06/2017
Poster for Society for Molecular Biology and Evolution, Gold Coast: *The probability of monophyly of a sample of gene lineages given a species tree: an application to maize domestication.* 07/2016
Poster for Biological Sciences Research Showcase, University of California, San Diego: *Using CellProfiler as an alternative to other methods in collecting data related to the study of bacterial aging* 06/2013

PUBLICATIONS

1. RS Mehta, D Bryant, and NA Rosenberg. "The probability of monophyly of a sample of gene lineages on a species tree." Proc Natl Acad Sci USA 113.29 (2016): 8002-8009.
2. RS Mehta and NA Rosenberg. "The probability of reciprocal monophyly of gene lineages in three and four species." Theor Popul Biol in press.
3. DE LaScala-Gruenewald, RS Mehta, Y Liu, and MW Denny. "Sensory perception plays a larger role in foraging efficiency than heavy-tailed movement strategies." Ecol Mod 404 (2019): 69-82.
4. RS Mehta, AF Feder, SM Boca, and NA Rosenberg. "The relationship between haplotype-based F_{ST} and haplotype length." Under review.
5. RS Mehta and NA Rosenberg. "Modeling anti-vaccine sentiment as a cultural pathogen." In prep.

TEACHING

Undergraduate Teaching Assistant for BILD 3 at the University of California, San Diego. Instructors: Carolyn Kurle, Krystal Rypien Fall 2012, Spring 2013
Graduate Teaching Assistant for BIO 143 at Stanford University. Instructors: Noah Rosenberg, Dmitri Petrov Spring 2015
Graduate Teaching Assistant for BIO 43 at Stanford University. Instructors: Hunter Fraser, Mary Beth Mudgett, Peter Vitousek, Waheeda Khalfan. Spring 2016
Instructor for Stanford SPLASH:

1. Introduction to Sabermetrics Spring, Fall 2014; Spring 2015; Spring, Fall 2017
2. A Brief Introduction to Population Genetics (with Alison Feder, Jonathan Kang) Spring 2015
3. Mathemagical Puzzles (with Ilana Arbisser, Alison Feder, Jonathan Kang) Fall 2015
4. Continued Fractions Fall 2015
5. Sneaky Statistics, Perplexing Probability (with Alison Feder, Jonathan Kang) Spring, Fall 2016
6. Evolutionary Game Theory Spring 2016
7. The $3n + 1$ Problem Spring 2018

Mentor for Figure Workshops, BIO 499R, at Emory University. Instructor: Nicole Gerardo. Fall 2019

OUTREACH

Stanford Speaker Panel, Monta Vista High School (with Jonathan Kang, Jessica Ribado, Alice Popejoy, Jaehee Kim) 05/2018
Judge, Synopsys Silicon Valley Science and Technology Championship 2017, 2018
Volunteer, Sea Lion Bowl, Stanford University 2015, 2016

NON-ACADEMIC PUBLICATIONS

The Dish on Science (online science magazine produced by Stanford affiliates)

1. Quantifying the Effects of Anti-vaccine Sentiment on the Spread of Disease. 03/2016

2. Linguistic Whodunits 11/2017

3. The Supreme Court Through the Eyes of Statistical Mechanics 03/2019