

The Jacob Marschak Interdisciplinary Colloquium on Mathematics in the Behavioral Sciences at UCLA

Friday May 17, 2013

Lunch 11:45 pm – 12:45 pm UCLA Faculty Center — RSVP to marschak@ssc.ucla.edu
Talk 1-3 pm 2343 Public Affairs Building (Luskin School) — no RSVP required



Speaker: Joshua Epstein, Professor of Emergency Medicine and Director of the Center for Advanced Modeling in the Social, Behavioral, and Health Sciences, Johns Hopkins University

Host: Susanne Lohmann, Professor of Political Science and Public Policy, UCLA

Agent-Based Computational Modeling in Public Health: From Playground to Planet

Epstein will present a wide range of mathematical and agent-based computational models of infectious disease, including pandemic flu, and other important public health dynamics, drawing parallels to contagious social phenomena generally. He will discuss his efforts to include behavioral adaptation in public health models at various scales.

Joshua M. Epstein is a professor in the Department of Emergency Medicine with joint appointments in the Departments of Applied Mathematics and Statistics, Economics, International Health, Environmental Health Sciences, Biostatistics, and the Institute for Computational Medicine. He is also an external professor at the Santa Fe Institute. He holds a B.A. from Amherst College and a Ph.D. in Political Science from MIT. In 2008, he was awarded the NIH Director's Pioneer Award, and in 2010 an Honorary Doctorate of Science from Amherst College. Among numerous articles, his books include *Growing Artificial Societies: Social Science from the Bottom Up* (MIT), with coauthor Robert Axtell; *Nonlinear Dynamics, Mathematical Biology, and Social Science* (Addison-Wesley); and *Generative Social Science: Studies in Agent-Based Computational Modeling* (Princeton).

The Jacob Marschak Interdisciplinary Colloquium was founded 50 years ago by Jacob Marschak, a pioneer in the economics of information. It is directed by Susanne Lohmann (Political Science and Public Policy) in collaboration with Sally Blower (Psychiatry and Biobehavioral Sciences), Dan Blumstein (Ecology and Evolutionary Biology), Louis Gomez (Education), Martie Haselton (Communication Studies and Psychology), and Mark Kleiman (Public Policy). Michael Intriligator (Economics, Political Science, and Public Policy) is Honorary Lifetime Director.

October 5, 2012 | Barbara Natterson-Horowitz, Professor of Medicine and Director of Imaging, UCLA
Zoobiquity: Comparative Psychopathology and the Redemption of Evolutionary Psychology

October 19, 2012 | Seana Coulson, Professor of Cognitive Science, University of California, San Diego
Meaning Construction in the Embodied and Embedded Mind: Gestures and Comprehension

November 2, 2012 | Edward Slingerland, Professor of Asian Studies and Canada Research Chair in Chinese Thought and Embodied Cognition, University of British Columbia
Debunking Myths About Early China: Embodied Cognition and the Study of Culture

November 16, 2012 | Kerri Johnson, Assistant Professor of Communication Studies and Psychology, UCLA
Social Categorization at the Crossroads: Mechanisms by Which Intersecting Social Categories Bias Social Perception

November 30, 2012 | Scott E. Page, Leonid Hurwicz Collegiate Professor of Complex Systems, Political Science, and Economics, University of Michigan and external faculty member, Santa Fe Institute
Unpacking the Wisdom of Crowds

January 11, 2013 | Raffaele Vardavas, Associate Mathematician, RAND Corporation and Pardee RAND Graduate School
Modeling Influenza Vaccination Behavior via Inductive Reasoning Games

January 25, 2013 | Moshe Kress, Professor of Operations Research, Naval Postgraduate School
Modeling Insurgencies

February 8, 2013 | Carlos Castillo-Chavez, Regents Professor and Joaquin Bustoz Jr. Professor of Mathematical Biology, Arizona State University
Mathematics, Models and Public Security: From Epidemics to the Deliberate Release of Biological Pathogens and the Spread of Fanatic Behaviors

February 22, 2013 | Naomi Eisenberger, Assistant Professor of Social Psychology, UCLA
Social Pain and Pleasure: The Social Neuroscience of Rejection and Connection

March 8, 2013 | Dan Kahan, Elizabeth K. Dollard Professor of Law and Professor of Psychology, Yale University
The Tragedy of the Science-Communication Commons

April 5, 2013 | Iain Couzin, Assistant Professor of Ecology and Evolutionary Biology, Princeton University
Collective Animal Behavior

April 19, 2013 | David Buss, Professor of Psychology, University of Texas at Austin
The Evolution of Crime: From Stalking to Murder

May 3, 2013 | Todd Presner, Professor of Germanic Languages and Comparative Literature, Sady and Ludwig Kahn Director of the Center for Jewish Studies, and Chair of the Digital Humanities Program, UCLA
Digital Cultural Mapping: From Social Media Feeds to the Deep Time of Urban Pasts

May 17, 2013 | Joshua Epstein, Professor of Emergency Medicine and Director of the Center for Advanced Modeling in the Social, Behavioral, and Health Sciences, Johns Hopkins University
Agent-Based Computational Modeling in Public Health: From Playground to Planet

May 31, 2013 | Andrea Bertozzi, Professor of Mathematics and Director of Applied Mathematics, UCLA
Mathematics of Crime