

Curriculum Vitae

Simon DeDeo

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I. POSITIONS HELD

- Assistant Professor, Social and Decision Sciences, Carnegie Mellon University. 2016—.
- Assistant Professor, School of Informatics and Computing; Faculty in Cognitive Science, College of Arts & Sciences. Indiana University, 2014—2016.
- External Professor, Santa Fe Institute, Santa Fe, New Mexico, 2014—.
- External Faculty, Complexity Science Hub Vienna, Vienna, Austria, 2017—.
- Research Fellow of the Santa Fe Institute, Santa Fe, New Mexico, 2013. Omidyar Fellow, 2010–2012; Interdisciplinary research with focus on theory of computation, biological information processing, social decision-making, and collective phenomena.
- Postdoctoral Fellow of the Institute for the Physics and Mathematics of the Universe, University of Tokyo, 2009. Focus on effective theories and statistical physics.
- Postdoctoral Fellow of the Kavli Institute for Cosmological Physics, University of Chicago, 2006–2009. Focus on theoretical and observational cosmological physics.

II. GRANTS

- “Don’t read the comments”: the Perception-Action Cycle and Social Information-Processing in Complex Online Environments. Lead PI. \$994,077. In review. 2017
- “The Role of Information in Structured Conflict.” Army Research Office. Lead PI. \$350,698 over two years. In review. 2017.
- “Rank emergence through conflict.” Interacting Minds Center Seed Grant. With Dan Mønster. 100,000 DKK (\$14,584) over three months. **Awarded**; funded exploratory work for ARO above. 2015.
- “The Small-Number Limit of Biological Information Processing.” National Science Foundation, EF-1137929. Lead PI. \$339,457 over three years. **Awarded**. 2011–2014; no-cost extension 2015.
- REU Supplement for R. Hawkins. NSF SMA-1005075, “Transdisciplinary Research Through Computational Modeling.” \$12,014. **Awarded**. 2013.
- REU Supplement for R. Garduño. Amendment to NSF PHY-0706174, “A Broad Research Program in the Sciences of Complexity.” \$12,014. **Awarded**. 2012.
- “The Landscape of Multiscale Computation.” TeraGrid Resource Allocation, TG-IBN110006. 2×10^5 CPU hours over one year. 2011–2012.
- Graduate Fellow, National Science Foundation. 2000–2004.

III. EDUCATION

- Princeton University, Department of Astrophysical Sciences. Ph.D., 2006. Thesis: “Dark Energy : Theory and Observational Prospects.” David Spergel (advisor). Thesis committee: Jerry Ostriker (Princeton, Astrophysics), Paul Steinhardt (Princeton, Physics).
- Cambridge University, Department of Applied Mathematics and Theoretical Physics. Part III of Mathematical Tripos (one year taught Masters) *Distinction* grade. 2000–2001. Thesis: “Non-Gaussian Perturbations in the Cosmic Microwave Background.” Thesis Advisor: E. P. S. Shellard. King’s College Scholar, Cambridge University, 2001.
- Harvard University, Department of Astrophysics. A.B., *Magna cum laude*. 1996–2000. Thesis: “General Relativistic Constraints on Anomalous X-ray Pulsar Emission Models.” Thesis Advisor: Ramesh Narayan.

IV. PAPERS

A. Working Papers

- The Evolution of Lossy Compression Sarah Marzen & **Simon DeDeo***. arXiv:1506.06138. In review.
- Common Knowledge on Networks Torrin M. Liddell & **Simon DeDeo***. arXiv:1507.08282.

B. Publications

- Jaimie Murdock, Colin Allen, **Simon DeDeo***. Exploration and exploitation of Victorian science in Darwin's reading notebooks. *Cognition* 159, 117-126. 2017 **Simon DeDeo**. Conflict and computation on Wikipedia: A finite-state machine analysis of editor interactions. *Future Internet* 8 (3), 31. 2016
- The Evolution of Wikipedia's Norm Network Bradi Heaberlin, **Simon DeDeo***. *Future Internet*, 8(2), 14 (2016) doi:10.3390/fi8020014 arXiv:1512.01725.
- Major Transitions in Political Order **Simon DeDeo** Chapter for *From Matter to Life: Information and Causality* (Cambridge University Press). Edited by Sara Imari Walker, Paul C.W. Davies, George Ellis. In press (2016).
- Sarah Marzen, **Simon DeDeo**. Weak universality in sensory tradeoffs. *Physical Review E* 94 (6), 060101. 2016.
- Wrong side of the tracks: Big Data and Protected Categories. **Simon DeDeo** arXiv:1412.4643. Chapter for *Big Data is Not a Monolith* (MIT Press). Edited by Cassidy R. Sugimoto, Hamid Ekbia, Michael Mattioli. In press (2016).
- Social feedback and the emergence of rank in animal society. Elizabeth Hobson & **Simon DeDeo**. *PLoS Computational Biology* 11(9): e1004411 (2015). doi:10.1371/journal.pcbi.1004411
- Group Minds and the Case of Wikipedia. **Simon DeDeo**. *Human Computation* 1:1 (2014). arXiv:1407.2210 [q-bio.NC]
- The Civilizing Process in London's Old Bailey. Sara Klingenstein, Tim Hitchcock, & **Simon DeDeo***. *Proceedings of the National Academy of Sciences* (2014). doi:10.1073/pnas.1405984111
- Optimal High-Level Descriptions of Dynamical Systems. David H Wolpert, Joshua A Grochow, Eric Libby & **Simon DeDeo**. Chapter for *From Matter to Life: Information and Causality* (Cambridge University Press). Edited by Sara Imari Walker, Paul C.W. Davies, George Ellis. In press (2015).
- Robust Compressed Sensing and Sparse Coding with the Difference Map. Will Landercker, Rick Chartrand & **Simon DeDeo**. *European Conference on Computer Vision 2014, Part III, LNCS 8691*, pp. 315329 (2014). arXiv:1311.0053 [cs.CV]
- Demystifying Information-Theoretic Clustering. Greg Ver Steeg, Aram Galstyan, Fei Sha & **Simon DeDeo**. *Proceedings of The 31st International Conference on Machine Learning (ICML), Beijing* (2014). arXiv:1310.4210 [cs.LG]
- Dynamical structure of a traditional South American social network. Paul L. Hooper*, **Simon DeDeo***, Ann E. Caldwell Hooper, Michael Gurven, Hillard S. Kaplan. *Entropy*, 15, 4932-4955 (2013).
- Estimating Functions of Distributions Defined over Spaces of Unknown Size. David Wolpert, **Simon DeDeo**. *Entropy* 15, 4668-4699 (2013).

- Collective Phenomena and Non-Finite State Computation in a Human Social System. **Simon DeDeo**. *PLoS ONE* 8(10): e75818. doi:10.1371/journal.pone.0075818 (2013). arXiv:1212.0018 [cs.SI]
- Bootstrap Methods for the Empirical Study of Decision-Making and Information Flows in Social Systems. **Simon DeDeo**, Robert Hawkins, Sara Klingenstein & Tim Hitchcock. *Entropy*, 15(6), 2246-2276 (2013). arXiv:1302.0907 [cs.IT]
- Dynamics and Processing in Finite Self-Similar Networks. **Simon DeDeo** & David Krakauer. *Journal of the Royal Society Interface* 9(74), 2131-2144 (2012).
- Evidence of strategic periodicities in collective conflict dynamics. **Simon DeDeo**, David Krakauer, Jessica Flack. *Journal of the Royal Society Interface* 8(62):1260 (2011).
- Effective Theories for Circuits and Automata. **Simon DeDeo**. *Chaos* 21, 037106 (2011)
- Parallel Complexity of Random Boolean Circuits. Jon Machta, **Simon DeDeo**, Stephan Mertens & Cris Moore. *Journal of Statistical Mechanics* 4: P04015 (2011).
- Inductive Game Theory and the Dynamics of Animal Conflict. **Simon DeDeo**, David Krakauer & Jessica Flack. *PLoS Computational Biology* 6(5): e1000782 (2010).
- Intelligent Data Analysis of Intelligent Systems. David Krakauer, Jessica Flack, **Simon DeDeo**, Doyne Farmer & Daniel Rockmore. *Advances in Intelligent Data Analysis IX*. 8-17 (2010).
- Neutron Stars in $f(R)$ Gravity with Perturbative Constraints. Alan Cooney, **Simon DeDeo** & Dimitrios Psaltis. *Physical Review D* 82 064033 (2010).
- Gravity with Perturbative Constraints: Dark Energy Without New Degrees of Freedom. Alan Cooney, **Simon DeDeo** & Dimitrios Psaltis. *Physical Review D* 79 044033 (2009).
- Finding the Missing Baryons Using the CMB as a Backlight. Shirley Ho, **Simon DeDeo** & David Spergel arXiv:0903.2845 (2009).
- Macroscopic Objects in Theories with Energy-dependent Speeds of Light. **Simon DeDeo** & Chanda Prescod-Weinstein. arXiv:0811.1999 (2008).
- Stable, Accelerating Universes in Modified Gravity. **Simon DeDeo** & Dimitrios Psaltis. *Physical Review D* 78 064013 (2008)
- Cluster Mass Estimators from CMB Temperature and Polarization Lensing. Wayne Hu, **Simon DeDeo** & Chris Vale. *New Journal of Physics* 9(12) 441 (2007).
- Particle Dark Energy. **Simon DeDeo**. *Physical Review D* 73 043520 (2006)
- CH₃CN Observations toward Southern Massive Star-forming Regions. Esteban Araya, Peter Hofner, Stan Kurtz, Leonardo Bronfman & **Simon DeDeo**. *Astrophysical Journal Supplement* 157(2) (2005).

- The kinetic Sunyaev-Zel'dovitch effect as a dark energy probe. **Simon DeDeo**, David N. Spergel & Hy Trac. *astro-ph/0511060* (2005).
- Testing Strong-field Gravity with Quasi-Periodic Oscillations. **Simon DeDeo** & Dimitrios Psaltis. *astro-ph/0405067* (2004).
- Towards New Tests of Strong-field Gravity with Measurements of Surface Atomic Line Redshifts from Neutron Stars. **Simon DeDeo** & Dimitrios Psaltis. *Physical Review Letters* 90 141101 (2003).
- Effects of the Sound Speed of Quintessence on the Microwave Background and Large Scale Structure. **Simon DeDeo**, R. R. Caldwell & Paul J. Steinhardt *Physical Review D* 67 103509 (2003).
- Eternal time machine in (2+1)-dimensional anti-de Sitter space. **Simon DeDeo**, J. Richard Gott. *Physical Review D* 66 084020 (2002).
- General Relativistic Constraints on Emission Models of Anomalous X-Ray Pulsars. **Simon DeDeo**, Dimitrios Psaltis, Ramesh Narayan. *Astrophysical Journal* 559 346 (2001).
- Photon Propagation around Compact Objects and the Inferred Properties of Thermally Emitting Neutron Stars. Dimitrios Psaltis, Feryal Özel, **Simon DeDeo**. *Astrophysical Journal* 544 390 (2000).
- Improved frequency stability of the dual-noble-gas maser. D. Bear, T. E. Chupp, K. Cooper, S. DeDeo, M. Rosenberry, R. E. Stoner, & R. L. Walsworth. *Physical Review A* 57 5006 (1998).

V. MENTORSHIP

- Bradi Heaberlin (Indiana University). Santa Fe REU Advisor (Summer 2015); Undergraduate research advisor, REU Mentor, Fall 2015– (COGS Q395). *Norms that Govern: the Case of Wikipedia*.
- Jenny Huang (Indiana University). Undergraduate research advisor, Fall 2015–. *Predictive Politics in the French Revolution*.
- Jaimie Murdoch (Indiana University). Dissertation advisor, Fall 2014—. *The Dynamics of Expert Learning and Semantic Structure of Charles Darwin's Library* (with Colin Allen, Cognitive Science Program).
- Alexander Barron (Indiana University). Graduate research advisor, Fall 2014—. *Signaling and Information in the U.S. Congressional Record*.
- Jonathan Hawkins (Indiana University). Undergraduate research advisor, Fall 2014—Spring 2015. *Gasoline Prices and Learning out of Equilibrium*. Now Yale University, Economics, Ph.D..
- David Chartash (Indiana University). Graduate research advisor, Fall 2014. *Medical Practice and the Long-Term Evolution of Fibromyalgia Diagnosis*.

- Torrin Liddell (Indiana University). Graduate research advisor, Spring 2014–Summer 2015. *Common Knowledge on Complex Networks*.
- Elizabeth Hobson (New Mexico State University; NIMBioS starting Summer 2014). Postdoctoral mentor, Spring 2014. *The Behavior-Knowledge Loop and the Local Construction of Global Power in Animal Society*. Now Postdoctoral Fellow, National Institute for Mathematical and Biological Synthesis (NIMBioS).
- Will Landecker (Portland State University). SFI Graduate Fellowship advisor, Fall 2013. *Sparse Coding, Compressed Sensing & the Difference Map*.
- Sara Klingenstein (University of Colorado, Boulder & St. John’s College, Linguistics and Mathematics, graduate student). Research mentor, Winter 2011–Summer 2012. SFI Graduate Fellowship advisor, Fall 2012–Summer 2013. *Institution Formation, Semantic Phenomena, and Three Hundred Years of the British Criminal Court System*. Now Harvard University, Department for the Study of Religion, Ph.D.
- Ronnie Garduño (University of New Mexico, Computer Science, undergraduate). Research Mentor, Winter 2011–Spring 2012. REU mentor, Summer 2012. Research advisor, Fall 2012–August 2013. *Phase Transitions and Critical Phenomena in Boolean Circuit Ensembles*. Now University of New Mexico, Mathematics, Ph.D..
- Galen Harrison (Reed College, Mathematics, Undergraduate). REU mentor, Summer 2013. *Punishment and Gender in London’s Old Bailey*.
- Robert Hawkins (Indiana University, Cognitive Science, Undergraduate). REU mentor, Summer 2012; Summer 2013. *The Emergence of Insurgency in Afghanistan: an Information Theoretic Analysis*. Now Stanford University, Psychology, Ph.D..
- Laura Florescu (Los Alamos National Labs). Research Supervisor, Winter 2011–Spring 2012. *Random Circuits and the Parity Problem*. Now NYU Courant Institute (Mathematics), Ph.D..
- Kristin Harringer (University of New Mexico, Mathematics, Undergraduate). Joint mentor in science and mathematics education with Irene Lee (SFI and Guts y Girls program). Summer 2012. Now University of New Mexico, Mathematics, Ph.D..
- Jay Garlapati (University of Chicago, Mathematics, Undergraduate). REU mentor, jointly with with John Miller (CMU, Chair of Social and Decision Sciences). Summer 2011. *The Krohn-Rhodes Theorem and the Evolution of Computation*.

VI. INVITED TALKS AND MEETINGS

- Invited speaker and discussant. “Messier Life”. Carnegie Institute, Washington, DC. Workshop on the Origins of Life. 9–13 November 2015.
- Invited speaker. “Major Transitions in Social Order”. Carnegie Mellon University. 27 October 2015.

- Invited discussant and speaker. “Birds in the Matrix”. David Wolpert, Jen Dunne & James O’Dwyer. Santa Fe Institute Working Group on Schrodinger’s paradox. 21–23 October 2015.
- Invited speaker. “Information Theory, Big History, and the Minds of Others”. MIT Media Lab. 16 October 2015.
- Invited speaker. “Cognitive Science of Political Order”. MIT Media Lab. 15 October 2015.
- Invited speaker. “Cognitive Science of Political Order”. Colloquium, Department of Cognitive Science, University of Colorado. 9 October 2015.
- Invited speaker. “Information Theory, Big History, and the Minds of Others”. Digital Humanities Series, Department of History, University of Colorado. 8 October 2015.
- Plenary speaker. “Major Transitions in Political Order”. Conference on Complex Systems. Arizona State University. 29 September 2015.
- Tutorial Leader. Information Theory and Maximum Entropy Methods. Conference on Complex Systems. Arizona State University. 27 September 2015.
- Invited speaker. “Information Processing and Political Order”. Global Brain Institute Seminar Series, Vrije Universiteit Brussel, Brussels, Belgium. 6–10 May 2015.
- Invited speaker. “Information Theory, Big History, and the Minds of Others”. Complex Systems, University of Vermont. 10 April 2015.
- Invited speaker. “Information Theory, Big History, and the Minds of Others”. Department of History, Harvard University. 9 April 2015.
- Invited speaker. “Social Feedback”. Two Sigma Investments (Quantitative Hedge Fund). New York City. 26 February 2015.
- Invited speaker. “Big History”. James Evans, Knowledge Lab, Department of Sociology, University of Chicago. 20 February 2015.
- Invited discussant. “Emergence of Inequality and Hierarchy”. Sam Bowles & Monique Borgerhoff Mulder. Santa Fe Institute Working Group. 29 January–2 February 2015.
- Colloquium, “State-Space Compression, Coarse-Graining, and the Averaging of Life and Mind”. Perimeter Institute for Theoretical Physics. Waterloo, Ontario. 17 December 2014.
- Invited discussant, “Workshop on the Causal Factors of Robustness and Plasticity in Living Systems”. Panel on Physiology and Metabolic Closure. Indiana University, 5 December 2014.
- Invited speaker, “The Civilising Process in London’s Old Bailey”. University of Oxford, All Souls’ College, Economic History Group, Oxford, UK, 18 November 2014.

- Speaker, “Must we mean what we say? Inferential Self-Awareness and the Social Effects of Machine Learning”. University of Oxford, Future of Humanity Institute, Oxford Martin Programme on the Impacts of Future Technology, Faculty of Philosophy, Oxford, UK, 17 November 2014.
- Invited participant, “Information Theory, Ecosystems, and Schrodinger’s Paradox” (Santa Fe Institute Working Group, David Wolpert organizer). 14 November 2014.
- Invited speaker, Eleanor Ostrom Colloquium. Indiana University. 3 November 2014.
- Invited speaker and discussant, Information and Predictability in Social Interactions. University of Aarhus, Denmark, 22 October 2014.
- Invited discussant. “Information, Causality & the Origin of Life”. ASU Beyond Center Workshop, 30 September–2 October 2014.
- “What are patterns?” Interdisciplinary workshop of humanists and scientists. Conference organizer (with Dan Rockmore, Dartmouth College). Neukom Institute, Dartmouth College, Hanover, NH. 11–13 August 2014.
- Visiting Research Scholar, City University of New York Initiative for the Theoretical Sciences. 21 July–10 August 2014.
- Invited speaker, 2014 Cognitive Science Institute Summer School on Web Science and the Mind, Montreal, Canada. 7–18 July 2014.
- Invited speaker and participant, “Statistical Mechanics Foundations of Complexity—where do we stand now?” (Santa Fe Institute workshop on the twelfth anniversary of the Gell-Mann–Tsallis meeting). 8 May 2014.
- Speaker, “Bootstrapping Possible Worlds”. Logic Seminar (organizer Larry Moss). 7 May 2014.
- Organizer (with Richard Niemeyer), and speaker, “Special Session on Modeling Complex Social Processes Within and Across Levels of Analysis,” American Mathematical Society, Western Spring Sectional Meeting, 5 April 2014.
- Invited speaker, “Is Wikipedia Alive?” ASU Beyond Center Workshop on the Physics of Living Matter, 25 February 2014.
- Working Group Co-Organizer, with Ben Althouse and Sam Scarpino, Santa Fe Institute. “From Co-Infection to Cultural Dissonance: New Challenges for Biological and Cultural Evolution,” September–October 2013.
- Invited speaker, “Memory, Cooperation and the Secret History of Micronorms in Wikipedia.” (Santa Fe Institute Behavior Discussion Group, Sam Bowles organizer). 11 July 2013.
- Colloquium speaker, “Reductionism, Naturalism, and Undecidability.” St. John’s College Lecture Series, 19 June 2013.

- Invited speaker, “Sequence Alignment, Social Systems, and Diachronic Bioinformatics.” Shared Horizons Symposium: Data, Biomedicine and the Digital Humanities, sponsored by the National Institutes of Health, Research Councils UK, and National Endowment for the Humanities, Office of Digital Humanities. Washington, DC, 10 April 2013.
- Invited speaker, Dynamical Systems, Department of Physics, University of Maryland, 4 April 2013.
- Colloquium speaker, “Reductionism, Naturalism, and Undecidability.” Department of Logic and Philosophy of Science, UC Irvine, 8 February 2013.
- Discussant and speaker (with Jerry Coyne, Terry Deacon, Richard Dawkins, Dan Dennett, Owen Flanagan, Rebecca Goldstein, Jana Levin, Massimo Pigliucci, David Poepel, Alex Rosenberg, Don Ross and Steven Weinberg). *Moving Naturalism Forward*. Stockbridge, MA. 25–28 October 2012. Video at <http://preposterousuniverse.com/naturalism2012/video.html>.
- Invited speaker, “Information Theory, Coarse-Graining, and Social Complexity.” IGERT Program in Evolutionary Modeling, Washington State University, 11 October 2012.
- Co-organizer, Speaker and Summary Presentation. Workshop on Combining Information Theory and Game Theory. 13–16 August 2012.
- Invited speaker, “Phase Transitions, Circuit Complexity, and Sampling.” Los Alamos National Lab (LANL). Center for Non-Linear Sciences, 12 July 2012.
- Speaker and discussant, SFI-LANL Collaboration Workshop, 21 May 2012.
- Colloquium speaker. “Renormalization, Coarse-Graining, and the Fragile Individual.” University of Pittsburgh, Center for Philosophy of Science, 17 April 2012.
- Invited speaker. “Computation in Biological Systems.” University of New Mexico, Program in Interdisciplinary Biological and Biomedical Sciences, 15 February 2012.
- Invited speaker. “Symmetry Breaking and Social Phenomena.” University of Michigan, 14 October 2011.
- Invited speaker. “Computation in Natural Systems”, and Satellite Presentation on the Krohn-Rhodes Theorem. European Complex Systems Society annual meeting, Vienna, Austria. 12 September 2011.
- Invited speaker. “Computation in Natural Systems”, University Pompeu Fabra, Barcelona, Department of Synthetic Biology. 9 September 2011.
- Visiting speaker. “Pattern and Computation in an Animal Social System”, University of Edinburgh, Language Evolution and Computation Research Unit (Simon Kirby). 23 August 2011.

- Visiting speaker. “Pattern and Computation in an Animal Social System”, Brown University, Ecology and Evolutionary Biology and Center for Computational Molecular Biology (Dan Weinreich). 13 July 2011.
- Visiting speaker. “Computation in Natural Systems”, Albert Einstein College of Medicine, Systems Biology group (Aviv Bergman). 7 July 2011.
- Invited talk. “Inductive Game Theory.” Computational Social Sciences Summer School (John Miller and Scott Page). 23 June 2011
- Invited speaker. “Cultural Evolution and Computer Language Choice in the Open Source Movement.” Computational Cultural Evolution workshop. 21–23 March 2011.
- Invited speaker. “Information Theoretics of the Afghanistan Conflict.” Frontiers of Data Analysis in Afghanistan workshop (Organizer: Bill Frej, Diplomat in Residence). 23–25 February 2011.
- Discussant. Complexity Workshop, Santa Fe Institute (Organizer: Jim Crutchfield). 10 January 2011.
- Visiting speaker. “Information Theory and Historical Processes.” Harvard Quantitative History group (Dan Smail). 15 October 2010.
- Speaker and Discussant. Computational Linguistics Workshop, Santa Fe Institute (Organizer: David Krakauer). 14-16 June 2010.
- Co-organizer of “Life Beyond the Gaussian” conference on new statistical tools in cosmological physics. University of Chicago, 2007.

VII. SANTA FE INSTITUTE COMPLEX SYSTEM SUMMER SCHOOL

- Lecturer. Information Theory, Cultural Evolution, Social Minds, Emergence (four lectures). 2015 Santa Fe Institute Complex Systems Winter School. 17–19 December 2015.
- Lecturer, “Social Minds” (two lectures), and Panelist. 2015 Santa Fe Institute Complex Systems Summer School. 19–23 June 2015.
- Lecturer, “Emergence in Nature and Society” (two lectures), and Panelist. 2014 Santa Fe Institute Complex Systems Summer School. 23–27 June 2014.
- Module Co-organizer (with James O’Dwyer) and Lecturer. Complex Systems Summer School. Two day module on Emergence: “Information processing and Coarse Graining in Computational Processes”; “Universality in equilibrium and non-equilibrium systems”; “Contrasting emergence in Physical, Biological and Social Systems”. Santa Fe Institute Complex Systems Summer School 18–19 June 2013.
- Module Organizer and Lecturer. Seven lectures. Two day module on Emergence (Effective Theories, Emergent Computation in Human Systems, Symmetry Breaking and Phase Transitions in Social and Biological Systems.) Two day module on Statistics and Stochastic Processes (Null Models and Bootstrap Estimation; Bayesian Inference

and MCMC Sampling of Posterior Spaces; Model Selection.) Lecture on Computation in Natural Systems. Full bibliography and edited video at <http://www.santafe.edu/~simon/page6/page6.html>. Santa Fe Institute Complex Systems Summer School. 8–26 June 2012.

- Module Co-organizer (with James O’Dwyer) and Lecturer. Two day module on Emergence (Effective Theories, Symmetry Breaking and Phase Transitions in Social and Biological Systems). Santa Fe Institute Complex Systems Summer School, 27–28 June 2011.
- Lecturer. Two “Physics of Reasoning” lectures (thermodynamics and information theory). Santa Fe Institute Complex Systems Summer School. 22 June 2010.

VIII. EXTRAMURAL SERVICE AND OUTREACH

- Executive Council, Complex Systems Society. 2015—2019. Vice-President Secretary (candidate); Executive Committee (candidate). 2015.
- Referee for *Physical Review E*, *Physical Review D* and *Physical Review Letters* (6/year); *PLoS Computational Biology*, *PLoS ONE*, *Proceedings of the Royal Society Interface*, *Complexity*, *Entropy*, *Axioms*, *Chaos*, *Theory in Biosciences*, *Advances in Complex Systems* and *Journal of Theoretical Biology* (1/year); *Columbia University Press* (Life Sciences book division); *Princeton University Press* (Complexity Sciences program).
- Board Member, Princeton University Press *Primers in Complexity Series*. 2013–.
- Assessor, Australian Research Council. 2013–.
- Committee for Recommended Scientific Uses of the SFI Tesuque Campus. Santa Fe Institute. Spring 2013.
- Internal talks organizer: Princeton Tunch, 2002–2003; Chicago Tunch, 2008; Tokyo Tubemasu, 2009; Santa Fe Reckless Ideas, 2010–2013.
- Popular writing, interviews in radio, video, and print, and significant press coverage (≈ 7 /year over last four years) including New York Times, New Scientist, National Public Radio and CNN. Also Birder’s World. Text and video for many appearances at <http://tuvalu.santafe.edu/~simon/page4/page4.html>.
- Radio interviews on KSFR (Santa Fe public radio) on human and biological social systems, 2010, 2012, 2013.
- Public lectures on science: “Science on the Screen”, lectures on the science behind films, jointly with Center for Contemporary Arts. 2012 (*Wargames*); 2013 (*Sneakers*).