

**SIMON ASHER LEVIN**

*James S. McDonnell Distinguished University Professor in Ecology and Evolutionary Biology*  
 Princeton University, Department of Ecology and Evolutionary Biology  
 A413 Briger Hall, 11 Ivy Lane, Princeton, NJ 08544-1003, USA. Telephone: 609.258.6880  
 Mailing Address: A413 Briger Hall, 11 Ivy Lane, Princeton, NJ 08544-1003,  
 USA

EEB Website: <https://eeb.princeton.edu/people/simon-levin>

Levin Lab Website: <http://slevin.princeton.edu>

ORCID: <https://orcid.org/0000-0002-8216-5639>

**EDUCATION**

|   |                     |         |
|---|---------------------|---------|
| B.A. The Johns Hopkins University                           | Mathematics         | 1961    |
| Ph.D. The University of Maryland                            | Mathematics         | 1964    |
| NSF Postdoctoral Fellow, University of California, Berkeley | Operations Research | 1964-65 |

**PROFESSIONAL EXPERIENCE****Princeton University**

|           |   |
|-----------|---|
| 2016-     | James S. McDonnell Distinguished University Professor in Ecology and Evolutionary Biology       |
| 1992-2016 | George M. Moffett Professor of Biology  |
| 2001-     | Director, Center for BioComplexity, High Meadows Environmental Institute                        |
| 1993-8    | Founding Director, Princeton Environmental Institute (now High Meadows Environmental Institute) |
| 1994-     | Affiliated Faculty, Princeton Environmental Institute/High Meadows Environmental Institute      |
| 1992-     | Affiliated Faculty, Program in Applied and Computational Mathematics                            |
| 2009-     | Mentoring Faculty, Quantitative and Computational Biology Program, Princeton University         |
| 2022-     | Mentoring Faculty, Lewis-Sigler Institute, Program in Biophysics                                |
| 2012-     | Faculty Associate, Graduate Certificate in Computational and Information Science (PICSciE)      |
| 2012-     | Faculty Associate, Princeton Institute for International and Regional Studies (PIIRS)           |
| 2014-     | Affiliated Faculty, Center for Policy Research on Energy and the Environment (C-PREE)           |
| 2016-     | Associated Faculty, Program in Global Health and Health Policy, Princeton SPIA                  |
| 2017-     | Associated Faculty, Princeton University Center for Human Values                                |
| 2019-     | Associated Faculty, Andlinger Center for Energy and the Environment                             |
| 2022-     | Affiliated Faculty, Center for Health and Wellbeing   |

**Cornell University**

|         |   |
|---------|---|
| 1992-   | Adjunct Professor, Ecology and Evolutionary Biology; Center for Applied Mathematics |
| 1990-92 | Director, Program on Theoretical and Computational Biology                          |
| 1987-90 | Director, Center for Environmental Research   |
| 1985-92 | Charles A. Alexander Professor of Biological Sciences                               |
| 1980-87 | Director, Ecosystems Research Center  |
| 1977-92 | Professor of Applied Mathematics and Ecology  |
| 1974-79 | Chair, Section of Ecology and Systematics, Division of Biological Sciences          |
| 1971-77 | Associate Professor   |
| 1965-70 | Assistant Professor   |

**Visiting & Honorary Positions**

|         |   |
|---------|---|
| 2018-   | Distinguished Visiting Professor, Arizona State University  |
| 1992-   | Adjunct Professor, Ecology and Evolutionary Biology; Center for Applied Mathematics   |
| 2020-23 | Honorary Professor, Tsinghua University, Beijing, China   |
| 2010-11 | External Faculty, Santa Fe Institute  |
| 2008-09 | Pardee Visiting Professor of Future Studies, The Frederick S. Pardee Center for the Study of the Longer-Range Future, Boston University                               |
| 2008-09 | Visitor, Institute for Advanced Study, Princeton, NJ  |
| 2007-16 | Visiting Distinguished Professor, Institute for Mathematical Behavioral Sciences, and in Ecology and Evolutionary Biology (2009-16), University of California, Irvine |
| 2004-05 | Visiting Professor, University of Miami, Department of Mathematics  |
| 2003    | Visiting Miller Research Professor, University of California, Berkeley  |

|         |   |
|---------|---|
| 1999    | Visitor, Institute for Advanced Study, Princeton, NJ  |
| 1994    | Visiting Researcher, Woods Hole Oceanographic Institution, Geophysical Fluid Dynamics Program |
| 1988-93 | Quondam Fellow, All Souls College, University of Oxford                                       |
| 1988    | Visiting Fellow, All Souls College, University of Oxford (Trinity Term)                       |
| 1988    | Visiting Researcher, Stanford University, Stanford, CA  |
| 1983-84 | Visiting Researcher, University of Kyoto, Kyoto, Japan  |
| 1980    | Visiting Researcher, The Weizmann Institute, Rehovot, Israel                                  |
| 1979-80 | Visiting Researcher, The University of British Columbia, Vancouver, Canada                    |
| 1977    | Visiting Researcher, The Weizmann Institute, Rehovot, Israel                                  |
| 1973-74 | Visiting Researcher, University of Washington, Seattle  |
| 1968    | Visiting Researcher, University of Maryland, College Park                                     |

## **HONORS AND AWARDS**

### **Major International Prizes**

Sven Berggren Prize, Royal Physiographic Society, Lund, Sweden (2024)  
BBVA Foundation Frontier of Knowledge Award in Ecology and Conservation Biology (2022)  
Tyler Prize for Environmental Achievement (2014)  
Luca Pacioli Prize, Ca'Foscari University of Venice, Italy (2014)  
U.S. National Medal of Science (2014)  
Margalef Prize, Government of Catalonia (2010)  
Kyoto Prize in Basic Sciences, Inamori Foundation, Japan (2005)  
A.H. Heineken Prize for Environmental Sciences, Royal Netherlands Academy of Arts and Sciences (2004)

### **Major Honorary Societies**

Fellow, Royal Society (2026-)  
Member, Academia Europaea (2022-)  
Foreign Member, Istituto Lombardo, Milan (2014-)  
Foreign Member, Istituto Veneto di Scienze, Lettere ed Arti, Venice, Italy (2008-)  
Member, American Philosophical Society (2003-)  
Member, National Academy of Sciences (2000-)

### **Major Society Awards**

Sigma Xi Gold Key Award (2025)  
Eminent Ecologist Award, Ecological Society of America (2010)  
Distinguished Scientist Award, American Institute of Biological Sciences (2007)  
I.E. Block Community Lecture Award, Society for Industrial and Applied Mathematics (2006)  
Distinguished Landscape Ecologist Award, U.S. Regional Association of the International Association for Landscape Ecology (US-IALE) (2003)  
The First Okubo Lifetime Achievement Award, Society for Mathematical Biology and Japanese Society for Mathematical Biology (2001)  
Distinguished Service Citation of the Ecological Society of America (1998)  
Distinguished Statistical Ecologist Award, International Association for Ecology (INTECOL) (1994)  
MacArthur Award, Ecological Society of America (1988)

### **Honorary & Distinguished Fellowships**

Beijer Fellow, Beijer Institute of Ecological Economics, Sweden (2007-)  
University Fellow, Resources for the Future (2008-2023, 2026-)  
Fellow, Society for Industrial and Applied Mathematics (SIAM) (2009-)  
Fellow, Ecological Society of America (2012-)  
Distinguished Visiting Fellow, IIASA (2014-)  
Fellow, Society for Mathematical Biology (2017-)  
Lifetime Fellow, Science Board, Santa Fe Institute (2018-)  
Research Fellow, Gruter Institute for Law and Behavioral Research (2020-)  
Fellow, American Mathematical Society (AMS) (2021-)  
Distinguished Senior Fellow, Intercollegiate Biomathematics Alliance (2022-)  
Fellow of the Royal Society (2026-)  
Distinguished Fellow, Luohan Academy, Hangzhou, China (2021-Sept. 2023)

Japan Society for the Promotion of Science Fellowship, Kyoto, Japan (1983-84)  
 Guggenheim Fellow (1979-80)  
 NSF Postdoctoral Fellow, University of California, Berkeley (1964-65)  
 NSF Predoctoral Fellow, University of Maryland, College Park (1962-64)

### Honorary Degrees

Honorary Doctor of Humane Letters, Johns Hopkins University (2026)  
 Honorary Doctor of Science, University of Victoria (2019)  
 Honorary Doctor of Science, McMaster University (2015)  
 Honorary Doctor of Science, Michigan State University (2009)  
 Honorary Doctor of Humane Letters Honoris Causa, Whittier College (2004)  
 Honorary Doctor of Sciences, Eastern Michigan University (1990)

### Publication Awards

- 2025 Highly Ranked Scholar, ScholarGPS.
- 2023 Co-author of Honorable Mention (Outstanding Ecological Theory Paper Award category) from the Ecological Society of America (ESA) for: Gibbs, T., Levin, S.A., and J.M. Levine. 2023. Coexistence in diverse communities with higher-order interactions. *PNAS* 119(43): e2205063119.
- 2023 Co-author of Most Cited Paper in Population Ecology, 2021-2023, for: Pinsky, M.L., Fenichel, E., Fogarty, M., Levin, S., McCay, B., St. Martin, K., Selden, R.L., and T. Young. 2020. Fish and Fisheries in hot water: What is happening and how do we adapt?" *Population Ecology*. <https://doi.org/10.1002/1438-390X.12050>.
- 2021 Co-author of ESA Outstanding Paper Award 2021 (Theory Section) for: Goel, N., Guttal, V., Levin, S.A., and A.C. Staver. 2020. Dispersal increases the resilience of tropical and savanna and forest distributions. *The American Naturalist* 195(5): 833-850.
- 2020 Co-author of ESA Outstanding Paper Award 2020 (Theory Section) for: Tekwa, E., Fenichel, E.P., Levin, S.A., and M. Pinsky. 2019. Path-dependent institutions drive alternative stable states in conservation. *PNAS* 116(2): 689–694.
- 2020 (Theory Section) for: Tekwa, E., Fenichel, E.P., Levin, S.A., and M. Pinsky. 2019. Path-dependent institutions drive alternative stable states in conservation. *PNAS* 116(2): 689–694.
- 2018 International Consortium of Chinese Mathematicians (Beijing) Best Paper Award 2018 for: Lei, J., Levin, S.A., and Nie, Q. 2014. Mathematical model of adult stem cell regeneration with cross-talk between genetic and epigenetic regulation. *PNAS* 111(10): E880-887.
- 2018 Co-author of One of the Most-Cited 2018 *PNAS* Papers for: Klein, E.Y., Van Boeckel, T.P., Martinez, E.M., Pant, S., Gandra, S., Levin, S.A., Goossens, H., and R. Laxminarayan. 2018. Global increase and geographic convergence in antibiotic consumption between 2000 and 2015. *PNAS* 115(15): E3463-E3470.
- 2014 Co-author of President’s Award for best paper in the *American Naturalist* for: Farrior, C.E., Dybzinski, R., Levin, S. and S. Pacala. Competition for water and light in closed-canopy forests: A tractable model carbon of allocation with implications for carbon sinks. *American Naturalist* 181(3): 314-330.
- 2012 Co-author of George Mercer Award 2012 for: Staver, A.C., Archibald, S. and S. Levin. 2011. Tree cover in sub-Saharan Africa: Rainfall and fire constrain forest and savanna as alternative stable states. *Ecology* 92(5): 1063-1072
- 2010 A Most Cited Paper(s) 2005-2009, Elsevier’s *Economic and Finance Journals* for: Durrett, R. and S.A. Levin. 2005. Can stable social groups be maintained by homophilous imitation alone? *Journal of Economic Behavior and Organization* 57(3): 267-286.
- 2002 Most Cited Paper in the Field of Ecology and Environment for the 1990s (Institute for Scientific Information, Philadelphia, PA) for: Levin, S.A. 1992. The problem of pattern and scale in ecology. *Ecology* 73(6): 1943-1967.
- 2001 Outstanding Paper in the Discipline of Landscape Ecology Award for 2001 (U.S. Chapter, International Association for Landscape Ecology) for: Keymer, J.E., Marquet, P.A., Velasco-Hernandez, J.X. and S.A. Levin. 2000. Extinction thresholds and metapopulation persistence in dynamic landscapes. *American Naturalist* 156(5): 478-494.
- 1990 Best Publication in Landscape Ecology Award, U.S. Chapter, International Association for Landscape Ecology for: Andow, D.A., P.M. Kareiva, S.A. Levin, and A. Okubo. 1990 Spread of invading organisms. *Landscape Ecology* 4 (2/3): 177-188.

### Other Honors and Awards

Member, World Laureates Association (2020-)  
Terp Research Excellence Award, University of Maryland Alumni Association (2024)  
Ecology & Evolutionary Leader Award, Research.com (2024)  
Lifetime National Associate of the National Research Council of the National Academies  
Highly Cited Researcher, Web of Science Group (2019-24)  
Simon A. Levin honored with iFAST Symposium Held to Celebrate His 80th Birthday and Outstanding Contributions to Theoretical Ecology (2021)  
Lifetime Achievement Award, Who's Who (2019)  
The Mathematical, Computational and Modeling Sciences Center at Arizona State University Relunched in Honor of Simon A. Levin as The Simon A. Levin Mathematical, Computational, and Modeling Sciences Center (2014)  
Theoretical Ecology 4(2), 2011, Special Issue in Honor of Simon Levin's 70th Birthday  
Journal of Biological Dynamics 6, Supplement 2, 2012, Special Issue in Honor of Simon Levin's 70<sup>th</sup> Birthday  
Journal of Mathematical Biology, 2012, Special Issue in Honor of Simon Levin's 70th Birthday  
Honorary Scholar, IIASA, Laxenburg Austria (2012-)  
Distinguished Alumnus of the Year Award, University of Maryland, College of Computer, Mathematical and Natural Sciences (2011)  
Clay Mathematics Senior Scholar-in-Residence (2004-2005)  
Medallion of the Université de Montpellier (2004)  
World Innovation Foundation, Honorary Member (2003)  
The Honor Society of Phi Kappa Phi Biology Colloquium Award (1991)

### Named Lectures

The Distinguished Brin Lecture, Brin Mathematics Research Center, Department of Mathematics, University of Maryland (2024)  
Sven Berggren Prize Lecture, Royal Physiographic Society of Lund (2024)  
The Distinguished Brin Lecture, Brin Mathematics Research Center, Department of Mathematics, University of Maryland (2023)  
The Messenger Lectures (3 lectures), Cornell University (2023)  
The Frederic and Julia Wan Distinguished Lecture Series (Inaugural Lecture), University of California, Irvine (2023)  
The Huck Distinguished Lecture, The Pennsylvania State University (2019)  
Lawrence B. Slobodkin Lecture (2 Lectures), Stony Brook University (2018)  
Dr. Erik B. & Mrs. Joyce D.C. Young Lecture, Bioscience Day, University of Maryland, College Park (2017)  
Federico Leighton Lecture, Pontificia Universidad Católica de Chile (2017)  
McKnight-Zane Lecture, University of Miami, Florida (2017)  
John R. Raben/Sullivan & Cromwell Fellow Lecture, Yale University Law School (2017)  
Siemens Lecture, Carl Friedrich von Siemens Foundation, Munich, Germany (2016)  
The Fridtjof Nansen Lectures on Ocean Life, University of Oslo, Norway (2016)  
Milton Wing Lecture (2 lectures), University of Rochester, NY (2016)  
Moore Lecture, University of Virginia, Dept. of Environmental Sciences (2016)  
C.C. Mei Distinguished Speaker Series, Civil and Environmental Engineering, MIT (2015)  
Hugh Hanson Ecology Seminar Series, University of Arizona, Tempe (2015)  
The John H. Rassweiler Annual Science Forum on Strategic Techniques and Innovations in Land Preservation and Stewardship, D&R Greenway Land Trust, Princeton, NJ (2014)  
The Stockholm Seminars: Frontiers in Sustainability, Science and Policy, Sweden (2014)  
Tyler Prize Laureate Lecture, University of Southern California, Los Angeles (2014)  
Aisenstadt Chairs for the Pan-Canadian Thematic Program on Models and Methods in Ecology (3 Lectures), Epidemiology and Public Health Related to Mathematics of Planet Earth, Université de Montréal (2013)  
Simons Public Lecture, MPE 2013, Melbourne, Australia (2013)  
The Haldane Award Lecture, John Innes Centre, Norwich BioScience Institutes, Norwich, UK (2011)  
Roland Lamberson Lecture in Ecology, Humboldt State University, Arcata, CA (2011)  
The David Bradford Seminars in Science, Technology and Environmental Policy, The Program in Science, Technology and Environmental Policy (STEP), Princeton University (2011)  
The Haldane Lecture, John Innes Centre, Norwich BioScience Institutes, Norwich, UK (2011)  
Lansdowne Lecturer, University of Victoria, Victoria, British Columbia, Canada (2011)  
Edward L. Reiss Memorial Lectures in Applied Mathematics (2 lectures), Northwestern University (2010)  
Rachel Carson Distinguished Lecture, Center for Systems Integration and Sustainability,

Michigan State University (2009)  
Shih-I Pai Lecture, Institute for Physical Science and Technology, University of Maryland (2009)  
Carnegie Capital Science Evening Lecture, Washington, DC (2008)  
Pardee Distinguished Lectures (2 lectures), Boston University (2008)  
Stelson Lecturer (2 lectures), Georgia Institute of Technology, Atlanta, GA (2008)  
Distinguished Lecturer, Distinguished Ecologists Lecture Series, University of Wyoming (2007)  
Distinguished Lecturer, Workshop on the Mathematics of Global Public Health. ASU, Phoenix, AZ (2007)  
Storer Life Sciences Lecturer, University of California, Davis (2006)  
Louis Thaler Lecturer, Université Montpellier II, France (2004)  
Michael Perkins Lecturer, University of Cambridge, UK (2003)  
Okubo Distinguished Scholar Lecturer, State University of New York, Stony Brook (2003)  
Frank G. & Jean M. Chesley Lecturer, Carleton College, Northfield, MN (2002)  
Kaeser Lecturer, University of Wisconsin (2001)  
Okubo Prize Lecturer, Society for Mathematical Biology and Japanese Society for Theoretical Biology (2001)  
Per Brinck Lecturer, Lund University (1999)  
R. Kent Nagle Lecturer, University of South Florida, Tampa (1999)  
The Third Annual Stanislaw Ulam Memorial Lecturer, Santa Fe Institute, Santa Fe, NM (1996)  
Ostrom Lecturer, Washington State University, Pullman (1994)  
Commencement Speaker, Eastern Michigan University (1990)  
MacArthur Lecturer, Ecological Society of American (1989)  
H.J. Oosting Memorial Lecturer, Duke University, Durham, NC (1987)  
Distinguished Ecologist Lecture Series Colorado State University (1987)  
Grace Kimball Memorial Lecturer, Wilkes College, Wilkes-Barre, PA (1986)  
Charles A. Alexander Professorship Lecturer, Cornell University, Ithaca, NY (1985)  
CBMS Lecturer (10 Lectures), Conference on Mathematical Ecology, University of California, Davis (1985)  
Lansdowne Lecturer, University of Victoria, Victoria, British Columbia, Canada (1981)

### **Professional Societies and Organizations**

American Association for the Advancement of Science, Lifetime Member  
American Society of Naturalists  
American Institute of Biological Sciences (AIBS)  
American Mathematical Society, Lifetime Member  
American Society of Naturalists  
British Ecological Society  
Center Member, Analysis and Prediction of Pandemic Expansion (APPEX)  
Society for Modeling and Theory in Population Biology  
Ecological Society of America (ESA) (President-Elect, 1989-90; President, 1990-91; Past President, 1991-92)  
Member, Board on Mathematical Sciences and Analytics, National Research Council, The National Academies (2015-18)  
Member, Secretariat, United by Nature/ The Nature Record, (2025-6)  
Member, Board on Biology, National Research Council, The National Academies (1980s)  
Member, Commission on Life Sciences, National Research Council, The National Academies (1980s)  
Society for Conservation Biology  
Society for Industrial and Applied Mathematics (SIAM)  
Society for Mathematical Biology (President, 1987-89; Past President and Vice President, 1989-91; Nominating Committee, 1994-95), Lifetime Member

### **CURRENT PROFESSIONAL ACTIVITIES**

#### **Board of Directors**

Vice Chair (Mathematics), The Committee of Concerned Scientists (1979-)

#### **Science Advisory Boards**

Advisory Board, Institute for Medical BioMathematics, Bene Ataroth, Israel (1999-)  
Chair, Scientific Advisory Board, Quantitative Biology Group, African Institute for Mathematical Sciences (AIMS)(2014-)  
Advisory Board, UVA Global Biothreats T32 Training Program (2022-)

Science Advisory Board, Complexity Sciences Hub of Vienna, Austria (2016-)  
Advisory Board, Institute for the Mathematical Sciences of the Americas, University of Miami (2018-)  
Scientific Advisory Board, The Future of the Greater Venice: Toward Seven Transition Scenarios to a Thriving Venice 2100, Istituto Veneto di Science, Lettere ed Arti, Venice (2023-)  
Friends of IIASA Board, (2025-)

### **Advisory Committees**

Advisory Committee, National Center for the Analysis and Prediction of Pandemic Expansion, University of Tennessee, (2024-)  
Advisory Group, Complexity Science Coalition, UNESCO Management of Social Transformations (MOST) Program (2023-)

### **Other Committees**

ESA Past Presidents Committee  
Fellows Selection Committee, Schmidt Futures and Rhodes Trust, Oxford, UK (2021-)  
Scientific and Strategic Partnerships Committee, Global South Artificial Intelligence for Pandemic and Epidemic Preparedness and Response Network, University of Toronto, Canada (2022-)  
Review Committee, NAS, Board on Mathematical Sciences and Analytics  
External Review Committee, Natural Capital Project, Stanford University (2023- )

### **Editor-in-Chief/ Managing Editor**

Monographs in Population Biology (with co-editors Henry Horn and then Corina Tarnita and Rob Pringle), Princeton University Press (1992- )  
Complexity Series (with co-editor Stephen Strogatz), Princeton University Press (1997-)  
Princeton Series in Theoretical and Computational Biology, Princeton University Press (2003-)

### **Editor**

Founding Associate Editor, Collective Intelligence (2020-)

### **Honorary Editor**

Journal of Mathematical Biology (Co-Managing Ed. 1976-95; Advisory Ed., 1973-76; Honorary Ed. 1995-)  
Bulletin for Mathematical Biology (1996-)  
Theoretical Ecology (2006-)

### **Editorial Boards**

Mathematical and Computer Modelling (1979-)  
Applied Mathematics Letters (1987-)  
Mathematical Biosciences (1987-)  
Papers on Mathematical Ecology (1987-)  
International Journal of Biomathematics (Series B, English) (2006-)  
Princeton University Press, Primers in Complexity (2007-)  
Princeton University Press, Science Essential Series (2007-)  
PNAS (2011-)  
Movement Ecology (2012-)

### **Advisory Boards**

Mathematical Biosciences and Engineering (2004-)  
Journal of Biological Dynamics (2006-)  
Landscape Ecology (2006-)  
PLoS Computational Biology (2007-)  
Collective Intelligence (ACM and Sage) (2020-)  
Mathematical Biosciences (2023-)

### **Current Princeton Activities**

Executive Committee of the Sustainable Energy (SE) Program, Andlinger Center (2019-)  
Faculty Advisory Committee, High Meadows Environmental Institute (formerly Princeton Environmental Institute) (1993-)  
Coordinator, MBI- Princeton Institute Partner Program (2015- )

Faculty Advisory Board/Faculty Review Board, Princeton Undergraduate Research Journal (2016-)  
Advisory Committee, Electoral Innovation Lab, Princeton University (2021-)  
Mentor, Climate and Environmental Sciences and Engineering Graduate Fellowship Program, HMEI, Princeton  
(2023-)  
Acting Chair, Department of Ecology & Evolutionary Biology (in Chair's absence) (2023-)  
Research Community on Global Systemic Risk, PIIRS

## **PREVIOUS PROFESSIONAL ACTIVITIES**

- Scientific Advisory Committee, Multiscale Experimental Ecosystem Research Center (MEERC), University of Maryland
- Advisory Board, BioGraph: Graphical Programming for Constructing Complex Systems Understanding in Biology
- Advisory Board, Center for Social and Economic Dynamics, Brookings Institute /Johns Hopkins University
- Advisory Board, McGill University, Centre for Applied Mathematics in Bioscience and Medicine
- International Advisory Board, CABDyN Complexity Center, Oxford University
- International Science Advisory Board, JST Crest (Novel Technologies to Evaluate Multi-Scale Variations of Marine
- Community and Biodiversity Under the Influence of Kuroshio and Internal Waves in Coastal Habitats
- Advisory Council, Stockholm Resilience Centre
- Advisory Council of Fellowship Advisors, The Nature Conservancy
- Advisory Council, NCEAS II
- Advisory Panel, Brain Tumor Funder's Collaborative
- Advisory Board, SIAM Activity Group on Mathematics of Planet Earth
- Advisor, Special Initiatives Program, James S. McDonnell Foundation
- Founding Member, Science Steering Committee for PECS (Programme in Ecosystem Change and Society), Complexity Programme of Nanyang Technical University (NYU), Singapore
- Steering Group, US/NMO, IIASA's Advanced Systems Analysis (ASA) Forum for Exploratory Project
- Scientific Steering Committee, Institute for Global Change Studies, Tsinghua University
- External Reviewer of the Major Program in Quantitative Biology in the Department of Ecology & Evolutionary Biology (EEB), Faculty of Arts & Science, University of Toronto

### **Previous Princeton Activities**

- Co-Director, NSF Training Grant, PACM
- Co-Organizer of Humboldt University-Princeton University Strategic Partnership
- Co-Organizer of Social Norms Research Group, Princeton University
- Core Participant in the Rapid Switch Program
- Editor, PLoS Biology, Challenges Series
- Editorial/ Advisory Board, PLoS Biology
- Editorial/ Advisory Board, Natural Resource Modeling
- Editorial/ Advisory Board, Environmental and Ecological Statistics
- Editorial/ Advisory Board, SIAM Review
- Editorial/ Advisory Board, The Scientist
- Editorial/ Advisory Board, Ecological Complexity
- Editorial/ Advisory Board, F1000 Biology Reports (Faculty of 1000 Biology)

### **Previous Professional Activities by Year**

#### **2025**

- Co-Organizer, Participant, Speaker, Boston Consulting Group: What the Fragility of Democracy Means for Corporations, January 16
- Selection Committee for Schmidt Science Fellows, January 24
- Organizer, Participant, Expeditions Mini-Symposium: Human Behavior and the Dynamics of Epidemics, February 25
- Ecology, Economy and Society (2021-2025)
- Speaker, Participant, UNU-CPR's Global Governance Innovation initiative in collaboration with the British Academy on transnational and planetary challenges, Two Parts- Rethinking Climate Governance: Lessons and Models for the Future May 1, Reimagining Climate Governance: Reforms, Models, and Actions July 24

- Co-Organizer, Attendee, ASU Dialogues in Complexity Workshop on Climate Governance, November 20-21
- Editorial Board, Faculty of 1000, Co-Section Head, Theoretical Ecology (2004-2025)
- Academic Fellow in the BCG Henderson Institute, Boston Consulting Group (2014-2025)
- Scientific Advisory Board, Instituto Serrapilheira, Brazil (2019-2025)
- Scientific Advisory Board, Serrapilheira: Training Program in Biology and Ecology (ICTP-SAIFR (2020-2025)
- Faculty Advisory Group, Center for Jewish Life (2021-2025)
- Program at the Isaac Newton Institute for Mathematical Sciences on “The Mathematics of Movement” (2021-2025)
- Faculty Fellows Program, Butler College
- Princeton’s Chapter of EWB (Engineers Without Borders with SEADS (Sustainable Engineering and Development Scholars) Program

## 2024

- Scientific Advisory Board, Approaches to Causation in the Social and Natural Sciences and their Implications for theory Building in Sustainability Science (CauSES) Stockholm Resilience Center (2021-24)
- Innovation Fund for the Campus as a Lab, Office of the Dean of Research
- Co-Organizer, Attendee, ASU Dialogues in Complexity Workshop on Climate Governance, Washington DC, September 5-6
- Advisory Board, Specialty Lead of Theoretical Biology, H1Connect (Formerly F1000Prime, then Faculty Opinions) (2013-24)
- Panelist, MIT Conference: Building a Bigger and Better US, MIT’s Laboratory for Financial Engineering, American Exchange Project, and The Cooperation Game, September 24
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## 2023

- Science Advisory Board, Santa Fe Institute, Santa Fe, NM (1991-9; 2001-5; 2011-7; 2018-23)
- Advisor, Steering Committee for Pilot Research into Complexity Measures for Ecoacoustics, University of Sussex (2022-3)
- Co-Organizer; Participant; Speaker, Complexity and International Relations Working Group; First meeting of group held in Princeton on May 18-19
- Program Committee; LEVERS: Lessons & Experiences on Viable Epidemic Response Strategies, PREPARE (Pandemic Research for Preparedness & Resilience), University of Virginia, Charlottesville (Virtual)
- Sabin-Aspen Vaccine Science and Policy Strategy Group, The Sabin Vaccine Institute, Washington, D.C.
- Campaign Committee, Friends of IIASA Campaign: Roger Levien IIASA-RAND YSSP Fellowship
- Advisory Board, DIMACS, Rutgers University (2008-2023)
- EEB Faculty Search Committee

## 2022

- Faculty Fellows Program, Butler College (2012-22)
- Change (held February 2022) (2021-2)
- Junior Faculty Search Committee for China, Ecology, Environment, Energy Position (PIIRS) (2021-2)
- Consultant, Mekong: LIFE Project (Concert), Princeton University
- Scientific Committee of the CBMS conference “Interface of Mathematical Biology and Linear Algebra,” University of Central Florida, Orlando, FL
- Organizing Committee, ITCP Workshop on Quantitative Human Ecology
- Invited Participant in the preparation of a high-level international meeting to celebrate the 50 years of the historic Stockholm 1972 Conference: Action, Renewal and Trust “Economy and Finance for People and Planet” (participation in the writing of the science synthesis)
- Participant, SMF Complex Systems Scholars, Konstanz, Germany
- Program Advisory Committee, APC for the IIASA 50th anniversary conference “Systems Analysis for Reducing Human Footprints and Enhancing Resilience,” Austrian Academy of Science
- Organizing Committee, Julis-Rabinowitz Center for Public Policy & Finance Conference about Finance and Climate
- EEB Graduate Student Review Committee

## 2021

- International Advisory Board, Graduate Education and Research Training Program in Decision Science for a Sustainable Society of the Program for Leading Graduate School of the Japan Society for the Promotion of Science, Kyushu University (2015-21)
- Scientific Committee of ICCMB2021, Bangladesh Society for Mathematical Biology (BSMB) (2021)
- Editorial/ Advisory Board, Frontiers in Ecology and the Environment (2002-21)

- Editorial/ Advisory Board, Ecosystem Health and Sustainability (EHS) (2014-21)
- Panelist, Nobel Prize Summit 2021: Our Planet, Our Future (Virtual)

**2020**

- Jury for the Dr. A.H. Heineken Prize for Environmental Sciences (2016-20)
- Director; Organizer; Participant, Princeton University-Arizona State University Dialogues in Complexity, Arizona State University (Workshop I – Second Series: Political Polarization), Virtual (Workshop II – Second Series: Political Polarization)
- Co-Organizer, Network Resilience, Sustainable Cities, and the Global Food System Conference (Princeton University, Stockholm Resilience Centre, Potsdam Institute for Climate Impact Research) (Virtual)

**2019**

- Honorary Editor, The Scientist (2006-19)
- Science Advisory Board, Stockholm Resilience Center (2014-19)
- Science Advisory Board, EcoPotential: Improving Future Ecosystem Benefits through Earth Observations, Politecnico DiMilano, Italy (2016-2019)
- Deputy Chair, Climate for All in EEB Committee (2016-19)
- Advisory Committee, International Selection Committee for the AIMS-Canada Research Chairs in Climate Change Science (2018-19)
- Co-Chair, HMEI Postdoctoral Research Associate Search Committee (2018-2019)
- Chair, EEB Search Committee for Junior Ecologist (2018-19)
- Director, Organizer; Participant, Princeton University-Arizona State University Dialogues in Complexity Workshops, Arizona State University (Workshop I – Series I: Challenges in Cybersecurity: Lessons from Biological Defense Systems) and Princeton University (Workshop II) – Series I: Challenges in Cybersecurity: Lessons from Biological Defense Systems)
- Co-Organizer/Participant of the CoCCon Workshops (with Humboldt University) Princeton University & Humboldt University, Berlin, Germany
- Co-Organizer, Extending the Cure: Individual Behavior and Public Health Conference, Princeton University
- Co-Organizer of Political Polarization Workshop, Princeton University
- Co-Organizer of Resilience 2020 Workshop, Princeton University

**2018**

- Science Advisory Board, Gordon and Betty Moore Foundation (2006-2018)
- Search Committee for the Carnegie Global Ecology Director, Carnegie Group (2016-8)
- Climate for All in EEB Committee Member, (2016-8)
- Chair, Committee to Select the Gibbs Lecturer for 2018 and 2019, American Mathematical Society (2017-8)
- Program Committee Member, TerMARisk (GreenMAR) Workshop, Moscow State University, Russia (2017-8)
- Screening Committee, ISC, AIMS-Canada Research Chairs in Climate Change Science (2018-9)
- Member, Environmental Studies Building Committee
- Advisory Committee to the Search Committee, DIMACS, Rutgers University
- Quantitative and Statistical Thinking in the Life Sciences Committee, Burroughs Wellcome Fund
- Steering Committee, Stockholm Resilience Centre Meeting August 2018
- Conference on Evolution and Financial Markets (with Andrew Lo, M.I.T.), American Academy of Arts and Sciences, Cambridge, MA (October 2018)
- Interdisciplinary Perspectives on Complex Systems: The Promise and Limitations of Metaphor (with Stephen Kotkin, Princeton), PIIRS (Fall 2018)
- Co-Organizer/Moderator/Participant, Sackler Colloquium: Economics, Environment, and Sustainable Development, University of California, Irvine
- Co-Organizer/Moderator/Speaker/Participant (with Stephen Kotkin, History Dept.), Interdisciplinary Perspectives on Complex Systems: The Promise and Limitations of Metaphor, PIIRS, Princeton University
- Co-Chair, Chinese SMB Meeting Committee, June 15-18, 2018, in Beijing, China
- Co-Organizer/ Participant of Patterns in Biology Workshop, Princeton University
- Co-Chair, Scientific Committee, 6th ICMB, CSMB, Beijing, PR China
- Science Advisory Committee/Organizing Committee, International Conference on Mathematical Modelling and Analysis of Populations in Biological Systems (October 12-14, 2019), Arizona State University, Tempe
- Co-Organizer/Participant Food System Transformation to Improve Sustainability and Health: Integrating Social and Biophysical Dynamics, Princeton-SRC Workshop, Stockholm Resilience Center, Stockholm Sweden

**2017**

- Editorial/ Advisory Board, Ecological Research (1996-2017)
- Selection Committee, Margalef Prize (2011-7)

- Advisory Panel, Mathematical and Complex Systems Approaches for Brain Cancer Program, McDonnell Foundation (2012-7)
  - Alternate Princeton Representative to the NJ Sea Grant Consortium (2012-17)
  - John R. Raben/Sullivan & Cromwell Fellow (2016-2017)
  - Organizing Committee Member, Resilience 2017, Resilience Alliance (2016-17)
  - Co-Organizer/Moderator/Speaker/Participant, Earth in 2050: Boundaries, Obstacles, and Opportunities Conference, Princeton University
  - Co-Organizer, Understanding the Dynamics of Social Norms Workshop, Princeton University
- 2016**
- Advisory Board, National Socio-Environmental Synthesis Center (SESYNC), Annapolis, MD (2011-6)
  - Scientific Advisory Board, NorMer (Nordic Centre for the Study of Nature, Ecosystems, Society, and Economic Effects of Climate Change in Marine Ecosystems) (2013-16); Chair (2015-6)
  - Scientific Advisory Board, Antimicrobial Resistance (AMR) Project, Livestock Systems and Environment, International Livestock Research Institute, Nairobi, Kenya
  - Planning Committee, Strategic Futures Day, Stockholm Resilience Center
  - Chair, Faculty Committee for EEB 504, Dept. of Ecology and Evolutionary Biology
  - Junior Assignment Committee, Dept. of Ecology and Evolutionary Biology
  - Co-organizer with Andrew Lo (MIT) and Bill Miller (Legg Mason) of conference “New Approaches to Financial Regulation,” sponsored by the Santa Fe Institute, held in Washington DC
- 2015**
- Advisory Board, International Network of Research on Coupled Human and Natural Systems (CHANS-Net) (2009-15)
  - Executive Committee for the Graduate Program in Quantitative and Computational Biology (2011-5)
  - Peer J Editorial Board (2012-2015)
  - Steering Committee, Course Guide, Moscow Summer Academy on Economic Growth and Governance of Natural Resources 2015 (MSA 2015)
  - Co-organizer with Robert Keohane (Princeton), Evolutionary Theory and World Politics Workshop
- 2013**
- Advisory Committee, Environmental Conservation Program, Gordon and Betty Moore Foundation (2012-3)
  - Editor-in-Chief/ Managing Editor, Encyclopedia of Biodiversity, Academic Press (1997-00); Online Editor, Elsevier (2005); Second edition, (2013)
- 2012**
- Editorial/ Advisory Board, Applied Mathematics Letters (1987-2012)
  - Editorial/ Advisory Board, Ecosystems (1996-2012)
  - Advisory Council, Smart Energy, Sustainable Environment Institute, University of California, Irvine (2010-2)
  - Completed (as editor) second edition of the Encyclopedia of Biodiversity, including about 100 new articles as well as revisions of the great majority of entries from the first edition.
  - Governing Council, IIASA, Laxenburg, Chair (2003-08); Vice-Chair (January 2009-12)
  - Chair, U.S. National Committee for IIASA, The National Academies (2003-12)
  - Advisory Board of the Miller Institute for Basic Research in Science, UC Berkeley (2009-12)
- 2011**
- World Economic Forum Committee: Re-thinking Risk Management Project (2009-11)
  - Co-organizer, Research Frontiers in Sustainability Science: Bridging Disciplines and Practices Workshop, AAAS Annual Meeting, Washington, DC
- 2010**
- Chair, Section 63, National Academy of Sciences (2007-10)
  - Co-Chair Science Advisory Board, Santa Fe Institute, Santa Fe, NM (2007-10)
  - Organizer, 2nd Symposium of Mathematical Systems Biology: Collective Dynamics in Biological Systems, University of California, Irvine
  - Advisor; Chair, Public Goods: From Ecology to Economics Conference, Institute for Mathematical Behavioral Sciences, University of California, Irvine
  - Leader, DARPA Investigator Meeting on Fundamental Laws of Biology, Dana Point, CA
  - Participant, Framing an Economic Approach to Biodiversity Loss in the Context of Climate Change and Deforestation Conference, World Bank, Washington, DC
  - Participant, Taskforce on Resilience and Risk Management, New York Forum, New York, New York
- 2009**
- Editorial/ Advisory Board, Evolutionary Theory (1976-2009)
  - Editorial/ Advisory Board, Mathematical Biosciences (1987-2009)

- Editorial/ Advisory Board, Conservation Ecology (1995- 2009)
  - Editorial/ Advisory Board, Issues in Ecology (1995-2009)
  - Advisor, Studying Complex Systems Program, James S. McDonnell Foundation (2000-9)
  - Chair, Class II, Section 4, American Academy of Arts & Sciences (2006-9)
  - Abroad Advisor, Arab Healthy Water Association (2007-9)
  - Editor, Princeton Guide to Ecology, Princeton University Press (published 2009)
  - Advisor, Program on Systemic Risk in Financial Systems, World Economic Forum
  - Co-Director, A Special Year on Social Norms, Institute for Advanced Study, Princeton, NJ
  - Co-Organizer and Leader/Participant, Strategies to Predict the Antigenic Evolution of H1N1 Conference, Chauncey Conference Center Princeton, NJ
  - Co-Organizer and Leader/Participant, National Science Foundation, Towards a Science of Sustainability Conference, Airlie Conference Center, Warrenton, VA
- 2008**
- Editorial/ Advisory Board, Journal of Theoretical Biology (1977-2008)
  - Project Leader, Scientific Committee for the EUROCORES Programme, TECT, European Science Foundation
  - Associate Editor, PLoS Computational Biology (2005-8)
- 2006**
- Advisory Board, Biodiversity Science and Education Initiative (BSEI), Smithsonian Institution (2005-6)
  - Chair, PED Review Committee, Harvard
- 2005**
- Chair, Steering Committee, Models of Infectious Disease Agent Study (MIDAS), National Institutes of Health (2004-5)
- 2004**
- Editorial/ Advisory Board, Santa Fe Institute (1998-2004)
  - Recovery Science Review Panel, National Marine Fisheries Service (2000-4)
- 2003**
- Editorial/ Advisory Board, Philosophical Transactions of the Royal Society, Series B (1998-2003)
  - Editorial/ Advisory Board, Proceedings of the National Academy of Sciences (2000-3)
  - Technical Advisory Council, British Petroleum (2001-3)
  - Science Commission, Smithsonian Institute (2001-3)
- 2002**
- Working Group, Modeling the Intentional Release and Emergence of Novel Infectious Agents, NIH, Bethesda (2001-2)
  - Committee on Inquiry into Infectious Diseases in Livestock, Royal Society, UK (2001-2)
  - Committee on Science and Technology for Countering Terrorism: Biological Panel, The National Academies: Institute of Medicine
- 2001**
- Committee of Experts, The Blasker Award for Environmental Science and Engineering, San Diego Community Foundation (1996-2001)
- 2000**
- Editor-in-Chief/ Managing Editor, Series in Mathematical and Computational Biology, John Wiley & Sons (1997-2000)
  - Scientific Advisory Committee for Theoretical Biology, Institute for Advanced Study (1998-2000)
  - Co-director, Fifth Autumn Course on Mathematical Ecology, ICTP, Trieste, Italy
- 1999**
- Board of Directors, H. John Heinz III Center for Science, Economics and the Environment (1994-9)
  - Board of Directors, The Beijer International Institute of Ecological Economics, Stockholm, Sweden (1994-99; Chair, 1997-9)
  - Advisory Board, 21st Century Scientist Awards Competition—Studying Complex Systems, James S. McDonnell Foundation
- 1998**
- Program Organizer, Beijer International Institute Advanced Course: Ecological Modeling for Economists, Santa Fe Institute
  - Board of Directors, American Association for the Advancement of Science (1994-8)
- 1997**
- Board of Directors, The Nature Conservancy, New Jersey Chapter (1995-7)
- 1996**

- Co-director, Third Autumn Workshop on Mathematical Ecology, ICTP, Trieste, Italy
- 1995**
- Founding Editor, Ecological Applications (1988-95)
  - Editor-in-Chief/ Managing Editor, Lecture Notes in Biomathematics, Springer-Verlag (1973-95)
  - Editor-in-Chief/ Managing Editor, Biomathematics, Springer-Verlag (1976-95)
  - Editor-in-Chief/ Managing Editor, Journal of Mathematical Biology (1976-95)
- 1994**
- Co-director, Fourth Autumn Course and International Conference on Mathematical Ecology, ICTP, Trieste, Italy
  - U.S. National Committee for Man and the Biosphere Program (MAB) (1993-4)
  - Committee of Proponents, Center for Environmental Science and Economics (1993-4)
- 1993**
- Study Committee on Environmental Research, National Research Council, National Academy of Sciences (1991-3)
  - Steering Committee, Sustainable Biosphere Initiative, ESA, Washington, D.C. (1991-3)
- 1992**
- Co-Director, Second Autumn Workshop on Mathematical Ecology, ICTP, Trieste, Italy
  - Editorial/ Advisory Board, Landscape Ecology (1987-92)
  - Past President, ESA (1991-2)
  - Executive Committee, ESA (1991-2)
- 1991**
- Co-organizer, Patch Dynamics in Terrestrial, Marine and Freshwater Ecosystems, A Summer School at Cornell University, Ithaca, NY
  - Board of Directors, Society for Mathematical Biology (1987-91)
  - Board of Directors, Ecological Society of America (1989-91)
  - President, ESA (1990-1)
  - Commission on Ecology, International Union for Conservation of Nature and Natural Resources (IUCN) (1990-1)
- 1990**
- Co-Director, Second Autumn Course on Mathematical Ecology, ICTP, Trieste, Italy Board of Directors, New York Sea Grant Institute (1988-90)
  - Ad Hoc Committee to Establish a Research Agenda for the 1990's, ESA (1989-92)
  - President-Elect, ESA (1989-1990)
  - Past President, Society for Mathematical Biology (1989-1990)
  - Executive Committee, Finance Committee, Future Meetings Committee, ESA (1989-1990)
  - Advisory Board, Air Resources Information Clearinghouse, Center for Environmental Information, Inc., Rochester, NY (1987-90)
  - Member, Health and Environmental Research Advisory committee, Dept. of Energy (1986-90)
  - President, Society for Mathematical Biology (1987-89)
  - Board on Biology, National Research Council, National Academy of Sciences
  - Commission on Life Sciences, National Research Council, National Academy of Sciences (1983-89)
  - Chair, Scientific Advisory Committee, Genetically Designed Organisms in the Environment, SCOPE (1988-89)
- 1988**
- Co-director, First Autumn Workshop on Mathematical Ecology, ICTP, Trieste, Italy
  - Nominating Committee, ESA (1987-8)
  - Public Affairs Committee, ESA (1985-8)
  - Chair, Subcommittee on Ecology and Ecosystems, Committee on Research Opportunities in Biology, Board on Basic Biology, National Research Council, National Academy of Sciences (1986-8)
- 1987**
- Co-organizer, NSF Conference on Future Directions in Theoretical Ecology, Monterey, CA
  - Editorial/ Advisory Board, Discrete Applied Mathematics (1978-87)
  - Committee on Release of Genetically Engineered Organisms into the Environment, A Committee of Council, National Academy of Sciences (1986-7)
  - Executive Committee, Association of Ecosystem Research Centers (1986-7)
- 1986**
- Co-Director, Second Autumn Course on Mathematical Ecology, ICTP, Trieste, Italy
  - Scientific Panel, Hudson River Foundation (Chair, 1985-86; Chair, Subcommittee on Community and Ecosystem Dynamics; Member, Executive Committee, 1982-5)
- 1984**
- Editorial/ Advisory Board, Theoretical Population Biology (1976-84)
  - Associate editor (Ad Hoc), Biometrics (1984)

**1983**

- Director, American Mathematical Society Short Course, Mathematical Population Biology, Albany

**1982**

- Co-Director, First Autumn Course on Mathematical Ecology, ICTP, Trieste, Italy
- Public Affairs Committee, ESA (1981-2)

**1981**

- Editorial Committee, Annual Review of Ecology and Systematics (1977-81)

**1980**

- Advisory Committee, Environmental Sciences Division, Oak Ridge National Laboratory (1978-80)

**1979**

- Representative of Council to Board of Trustees, SIAM (1978-9)
- Executive Committee of Council, SIAM (1978-9)
- Chair, AMS/SIAM Committee on Mathematics in the Life Sciences (1973-9)
- Editor, Lectures on Mathematics in the Life Sciences: American Mathematical Society (1974-9)
- Co-managing Editor, SIAM Journal on Applied Mathematics (1975-9)
- Publications Committee, SIAM (1975-9)
- Council, SIAM (1977-9)

**1978**

- Core Panel on Mathematics in the Biological Sciences, Program Committee, International Congress of Mathematicians, Helsinki, Finland (1977-8)
- U.S. Delegation, SCOPE-MAB Symposium on Mathematical Modelling of Man-Environment Interaction, Telavi, Georgia, USSR
- Co-Convenor, Biomathematics Conference, Oberwolfach, West Germany

**1977**

- Council, ESA (1975-7)
- Editor, Ecology and Ecological Monographs/ESA (1975-7)

**1976**

- Chair, Mercer Awards Subcommittee, ESA
- Editorial/ Advisory Board, Biomathematics (1974-6)

**1975**

- Co-convenor, The Institute of Ecology (TIE) Workshop on Theory in Ecosystem Analysis, Cornell University
- Associate Editor, Ecology and Ecological Monographs/ESA (1973-5)

**1974**

- Chair, SIAM Institute for Mathematics and Society (SIMS) Conference on Ecosystems, Alta, UT

**1973**

- NAS Committee, Environmental Effects Panel, Working Conference on Principles of Protocols for Evaluating Chemicals in the Environment, San Antonio, TX

**1971**

- Chair, Gordon Research Conference on Theoretical Biology and Biomathematics, Andover, NH

**1970**

- Co-Chair, Gordon Research Conference on Biomathematics, Andover, NH

**KEYNOTE LECTURES**

Biodiversity and Finance Workshop, Imperial, London (Virtual), (2025)

Singapore Green Finance Centre (SGFC) Biodiversity & Finance Workshop, Singapore Management University (Virtual) (2025)

Celebration of collaboration with Simon Levin: 10 Ideas that Shaped his Thinking, Boston Consulting Group (2025)

A Vision for Continental-Scale Biology: Research Across Multiple Scales, National Academies (2024)

Paving the Way for Continental Scale Biology: Connecting Research Across Scales Webinar Series, National Academies, Sciences, Engineering, Medicine (2023)

Dialogue on Climate Change and Biodiversity, Shanghai Chenshan Botanical Garden, WLA Forum (2023)

Applied Math Colloquium, Department of Mathematics and Statistics, University of Maryland, Baltimore County, MD (2023)

Keynote Speaker on Ecology, Serrapilheira Institute (Virtual) (2022)

Keynote Speaker, Economy of Francesco (EoF) School: Listening to Plants for a New Economic Paradigm Conference (Virtual) (2022)

BEER (Biomathematics and Ecology Education and Research), XV International Symposium, Illinois State University (Virtual) (2022)

Ignacio Rodríguez-Iturbe (1942-2022) Memorial Symposium, Texas A&M University, College Station, TX (Virtual) (2022)

Keynote Speaker in Ecology, Serrapilheira Institute, Launching of Online Training Program (Virtual) (2021)

Keynote Speaker, Online International Conference on Computational and Mathematical Biology (ICMB 2021), Bangladesh Society for Mathematical Biology (BSMB) (Virtual) (2021)

Keynote Speech, Rapid PI Meeting, University of Virginia (Virtual) (2021)

30th Annual International Conference, Society for Chaos Theory in Psychology and Life Sciences (Fields Institute, University of Toronto (Virtual) (2020)

International Workshop on Mathematical Biology 2020, Dhaka, Bangladesh (Virtual) (2020)

Levin Fest: A Symposium of the Intersection of Mathematics and Biology, University of Victoria (2019)

UN High-Level Panel on Sustainable Development: SDG 15, United Nations, New York, NY (2018)

Evolution and Financial Markets Conference, Norton Woods Conference Center, American Academy of Arts and Sciences, Cambridge, MA (2018)

Arthur M. Sackler Colloquia of the National Academies of Science, Washington DC (2016)

International Council for the Exploration of the Sea (ICES) Symposium, MSEAS 2016: Understanding Marine Socio-Ecological Systems: Including the Human Dimension in Integrated Ecosystem Assessments, Brest, France (2016)

IIASA Systems Analysis Conference (2016)

Deutsche Physikalische Gesellschaft, Physics of Socio-Economic Systems Division, Spring Meeting, Berlin, Germany (2015)

Arthur M. Sackler Colloquium: In the Light of Evolution VII: Darwinian Thinking in the Social Sciences Conference, University of California, Irvine (2014)

Montclair State University, PSEG-Institute for Sustainability Studies, International Conference on Sustainable Development (2012)

Kyushu University Centenary Symposium, Japan (2011)

LATSIS Symposium on Ecohydrology 2010, Lausanne, Switzerland (2010)

World Congress of Environmental and Resource Economists, Montreal, Canada (2010)

Theoretical Models in Ecology, Evolution, and Behavior: Recent Advances and Conceptual Issues (Conference in Honor of Prof. Danny Cohen's 80th Birthday, Department of Evolution, Systematics, and Ecology, The Hebrew University of Jerusalem (2010)

International Symposium of the Korean Society for Mathematical Biology, Seoul, Korea (2006)

DARPA Fundamentals of Biology Conference, Santa Barbara, CA (2006)

Princeton Environmental Institute 10th Anniversary Celebration, Princeton University (2004)

91<sup>st</sup> Annual ESA Meeting, Memphis TN (2003)

Biocomplexity in the Environment Awardees Meeting, NSF, Arlington, VA (2003)

Biocomp2002: Topics in Biomathematics and Related Computational Problems at the Beginning of the Third Millennium, Vietri sul Mare, Italy (2002)

Beta Beta Beta Biological Honor Society, College of New Jersey (2001)

Population Biologists of New England Annual Meeting, Mount Holyoke College, MA (1992)

1984 Benthic Ecology Meeting, Goucher College, Baltimore, MD (1984)

Danish Mathematical Society, Vingsted, Denmark (1981)

## **PLENARY LECTURES**

SIAM Conference on Mathematical and Computational Issues in Geosciences (GS25), Society for Industrial and Applied Mathematics (2025)

Workshop on Differential Equations and Mathematical Biology, University of Miami, Coral Gables, 'Political Polarization, Social Behavior, and the Dynamics of Infectious Diseases (2024)

Global Development Conference on Biodiversity and Sustainable Development, Global Development Network in collaboration with Future Earth and Universidad San Francisco de Quito (2023)

BIOECON XXII, Snow King Resort, Jackson, WY (Virtual) (2021)

Annual International Conference of the Complex Systems Society (Virtual) (2020)

Workshop on Discounting and Evaluation of Environmental Policies, Istituto Veneto di Scienze, Lettere ed Arti, Venice, Italy (2014)

Spatio-Temporal Dynamics in Ecology Workshop, Lorentz Center, University of Amsterdam, The Netherlands (2014)

Workshop on Mathematical Biology and Nonlinear Analysis, University of Miami, Coral Gables, FL (2014)

Biocomp 2012: Mathematical Modeling and Computational Topics in Biosciences (dedicated to Luigi M. Ricciardi), Vietri sul Mare, Italy (2012)

EcoSummit, The Ohio State University, Columbus, OH (2012)

Symposium on Systems and Control – A Tribute to Three Masters: Guido Guardabassi, Arturo Locatelli, Sergio Rinaldi, Politecnico di Milano, Milan, Italy (2010)  
25th US International Association of Landscape Ecologists (IALE) Symposium, University of Georgia, Athens (2010)  
Annual Meeting of Taiwan Mathematical Society (2008)  
IUBS Meeting, Complex Systems and the Challenge of Ecosystem Services, Washington, DC (2007)  
SWARMS meeting, Collective Behavior, Philadelphia, PA (2007)  
Symposium on Biodiversity in the Anthropocene: Perspectives on the Human Appropriation of the Natural World, Radcliffe Institute for Advanced Study, Harvard University, Cambridge, MA (2006)  
NRC, Federal Reserve Conference on New Directions for Understanding Systemic Risk, (sponsored by the NAS), New York, NY (2006)  
Workshop on Spatial Ecology: The Interplay Between Theory and Data, University of Miami (2005)  
Plenary Speaker and Discussion Panelist, 2004 Annual Meeting of the Society for Mathematical Biology (SMB) and International Conference for Mathematics in Biology and Medicine, Ann Arbor, MI (2004)  
52nd Annual AIBS Meeting – From Biodiversity to Biocomplexity: A Multidisciplinary Step Toward Understanding Our Environment (2001)  
American Mathematical Society Meeting, “Mathematical Challenges of the 21st Century,” Los Angeles, CA (2000)  
Woodrow Wilson National Fellowship Foundation, Leadership Program for Teachers, Princeton, NJ (2000)  
Symposium “When are Species Expendable?” Festschrift to honor R.T. Paine, Leavenworth, WA (1999)  
Alcalá 1st International Conference on Mathematical Ecology, Alcalá de Henares, Spain (1998)  
2nd Conference on The Mathematical Biology of Pattern and Process, University of Bath (1998)  
National Center for Ecological Analysis and Synthesis (NCEAS), Symposium on Synthesis in Ecology: Applications, Opportunities and Challenges, Santa Barbara, CA (1996)  
Conference on Biotechnology, Brookings Institution, Washington, D.C. (1985)  
2<sup>nd</sup> Pacific Coast Conference on Mathematical Modelling of Renewable Resources, University of Victoria, Canada (1983)  
International Symposium on Mathematics in Biology and Medicine, Bari, Italy (1983)  
Population Biologists of New England Meeting, University of Massachusetts, Amherst, MA (1983)  
XIth International Biometric Conference, Toulouse, France (1982)  
International Conference on Population Biology, Edmonton, Alberta, Canada (2 lectures) (1982)  
Conference on Differential Equations and Applications to Ecology, Epidemics, and Population Problems, Claremont, CA (1981)

## **OTHER INVITED LECTURES, ADDRESSES, ETC.**

2025

- SMTPB Podcast: Reflections on the history of modeling and Theory, Society for Modeling and Theory in Population Biology (Virtual)
- Institute for Basic Science (IBS) Biomedical Mathematics Online & Public Colloquium, Korea Biomedical Math Research Center (Virtual)
- University of California Irvine Honoring Don Saari’s on his 85<sup>th</sup> Birthday, Solving Mysteries: From Voting to the Universe (Virtual)
- PCI Symposium, “Public goods and democratic governance”, Princeton, NJ
- Natural Philosophy Symposium, “The Mathematics of Consilience,” Natural Philosophy Forum at Johns Hopkins
- Quantitative Research for the Life and Social Sciences Program (QRLSSP) New Cohort Kickoff, Arizona State University, (Virtual)
- Fall 2025 Notestein Seminar Series | Princeton University OPR, “From life history theory to dynasty theory and back,” Princeton office of Population Research
- Defense Advanced Research Projects Agency (DARPA) Complexity Series, “Consilience and complexity,” (Virtual)
- Interview with Americal Scientist, Tracking Patterns in Science, (Virtual)

2024

- Climate Resilience Webinar Series (Virtual)
- AI/Tech Meeting, Complexity and International Relations Series, Rockefeller Offices, NY, NY
- Quantitative Research in the Life and Social Sciences Program Lecture (Virtual)
- Serraphilheira Annual Meeting (Virtual)
- Stockholm Resilience Center International Scientific Advisory Council Address (Virtual)
- MIT Conference Panel, 'Understanding the Divide from Various Perspectives,' Building a Bigger and Better US.

- Complexity Science Hub, Science Advisory Board Meeting (Virtual)
  - Beijer Younger Scholars Modeling Summit (Virtual)
  - Santa Fe Institute Symposium, Political Risk in the Era of Uncertainty Series, Lecture: ‘Public Goods, Social Externalities, and Political Polarization’
  - DIMACS Tribute to the Many Facets of Fred Roberts, Talk: ‘Fred Roberts, Infectious Diseases, and African Science’
  - PIIRS Lecture, Global Existential Challenges, Designing Mechanisms for Addressing Political Polarization in Voter Behavior.
  - Canadian Association for Security and Intelligence Studies West Coast Security Conference (Virtual)
  - The Abdus Salam International Centre for Theoretical Physics (ICTP)/LQS Workshop on Limits to Collective Agency, Trieste, Italy (Virtual)
  - MIT Workshop on Biodiversity, Finance, and Policy (Virtual)
  - UNESCO Inclusive Policy Lab Podcast (Virtual)
  - Quantitative Research in the Life and Social Sciences Program Symposium, Arizona State University, Tempe, AZ
- 2023
- With Nicholas Silitch, Global Health Challenges: Vaccine Hesitancy and Global Warming, Princeton Pulse Podcast, Princeton University
  - Panel, Santa Fe Institute Working Group: Is There a Cross-Scale Theory of Regeneration and Failure for Complex Adaptive Systems, Santa Fe Institute
  - Opening Remarks, Critical Transitions Workshop, Earth Resilience and Sustainability Initiative, Princeton University
  - Workshop on Mathematical Social Science, University of Pennsylvania
  - Human Behavior and Disease Dynamics Workshop, Brin Mathematics Research Center, Department of Mathematics, University of Maryland
  - Opening Remarks, Complexity and International Relations Workshop, Princeton, NJ
  - Lighting Talk and Discussion Leader, GPCE Spring Meeting: Research Innovation, University of Virginia, Charlottesville
  - Democracy Reforms and To Do Simulations Workshop, Electoral Innovation Lab, Princeton University
  - Opening Speech, Digital Economy as Complex Systems, Luohan Annual Summit Sub-Forum: Exploring Complexity in the Digital Age of Uncertainty (Virtual)
  - International Zoom Seminar on Theoretical Ecology, International Initiative for Theoretical Ecology, Eötvös University, Hungary (Virtual)
  - Quantitative Research in the Life and Social Sciences, Arizona State University (Virtual)
  - Mathematical Physics Seminar, Center for Mathematical Sciences Research, Rutgers University (Virtual)• McGill University Seminar Series in Quantitative Life Sciences and Medicine, McGill University, followed by a discussion with students (Virtual)
  - Discussant (with Janet Currie and Ramanan Laxminarayan), following the screening of the film *Silent Pandemic: The Global Fight Against Antimicrobial Resistance*, by Michael Wee
  - Invited Lecture, “Modeling the End of Civilization,” with David Wolpert, Raissa D’Souza, and Lord John Alderdic, 2023 SFI ACTioN and Board and Trustees Symposium on *The Complexity of Civilization*, Santa Fe Institute, Santa Fe, NM
- 2022
- “The Dynamics of Political Polarization,” with Olivia Chu, Counterbalance Seminar Series (Virtual)
  - Moderator, “How Do We Reach the 2050 Targets Panel,” Evidence to Action: Achieving the Net-Zero 2050 Targets: Julis-Rabinowitz Center for Public Policy & Finance Eleventh Annual Conference, Princeton University (Virtual)
  - “Ecological and Evolutionary Perspectives on Systemic Risk,” Lecture given to Behavioral Finance Class at MIT, with a Fireside Chat and Q&A (Virtual)
  - “Complex Systems and Governance,” Princeton Forum on Diplomacy and Statecraft, Princeton University (Virtual)
  - “Rates and Transitions in Social and Economic Systems,” Banff International Research Station for Mathematical Innovation and Discovery (BIRS) Conference: Rate-Induced Transitions in Networked Systems, University of British Columbia, Vancouver, Canada (Virtual)
  - Discussant, Prevention, Early Detection and Response to Antimicrobial Resistance Pandemics Conference, Center for Health and Wellbeing & the High Meadows Environmental Institute, Princeton University
  - Festschrift in Honor of Professors Nikolaos Christodoulakis and Anastasios Xepapadeas, Athens University of Economics and Business, Greece (Virtual)

- “Complex Systems, Polarization, and Governance,” FedGov Complexity Monthly (Virtual)
  - “Mathematical Challenges in Dealing with Climate Change,” Scientific and Mathematical Approaches to Climate and Ecology Conference, Year of Climate Action, Brandeis University (Virtual)
  - Introduction, NSF PREPARE Workshop Series: Vaccine Preventable Diseases in a Post-COVID World (Virtual)
  - Introduction, Critical Transitions Workshop, ERSI, Princeton University (Virtual)
  - Acceptance Speech, BBVA Foundation Frontiers of Knowledge in Ecology and Conservation Biology Award Presentation, Bilbao, Spain
  - “The Relationship Between Diversity and the Resilience of Organizations,” Frontier Dialogue: The Value of Diversity for Organizations and Society, Luohan Academy (Virtual)
  - “Ecosystems and the Biosphere as Complex Adaptive Systems: Scaling, Collective Phenomena and Governance,” EcoTalks (China) (Virtual)
  - “COVID-19 and Challenges to the Classical Theory of Epidemics,” REU Colloquium Series, Arizona State University (Virtual)
  - “COVID-19 and Challenges to the Classical Theory of Epidemics,” Department of Quantitative and Computational Biology Seminar, University of Southern California (Virtual)
  - Invited Commentator, Identifying Positive Tipping Points Plenary Session, Tipping Points: From Climate Crisis to Positive Transformation Conference, University of Exeter, UK (Virtual)
  - Invited Speaker, Launch Event for Collective Intelligence Journal (Virtual)
  - “A Cross-Disciplinary Perspective on Complex Adaptive Systems,” Fung Internal Seminar (Virtual)
  - “New Challenges and New Potential for the Theory of Epidemics,” NSF Review of Expeditions Project, UVA Biocomplexity Institute, Charlottesville, VA (Virtual)
  - Introduction, “Mekong: LIFE,” Concert by Van-Anh Vo, The Blood Moon Orchestra with the Cambodian Ballet Master Charya Burt,” Princeton University
  - Panelist, The 5<sup>th</sup> WLA Zero Carbon Forum: Panel 1: “Carbon Strategy” – Global Collaboration on Climate Governance, Shanghai, China (Virtual)
  - “The Economics of Nature: An Ecologist’s Perspective,” The Forum of Nature and the Nature of Economics Conference, London School of Economics, London, UK (Virtual)
- 2021
- Introduction, Political Polarization Workshop for Special Issue of *PNAS* (2021) (Virtual)
  - Introduction to Speakers, Evnin 2021 Lecture: *Calling Bullsh\*t: The Art of Skepticism in a Data-Driven World*, Virtual Webinar, Princeton University
  - Math Fun, Amherst-Pelham Regional High School, Amherst, MA (Virtual)
  - Welcome, Earth Resilience and Sustainability Initiative, Princeton University (Virtual)
  - Public Goods: From Biofilms to Societies, Science Week, College of Science, University of Texas, Arlington (Virtual)
  - Panelist, Nobel Prize Summit 2021: Our Planet, Our Future (Virtual)
  - Science Before the Storm (Podcast), PREPARE (Virtual)
  - International Conference on Dynamics in Systems and Synthetic Biology (Ecological Systems), Centre de Recerca Matemàtica, Barcelona, Spain (Virtual)
  - Current Issues in Climate Research Conference, Accademia Nazionale dei Lincei (Virtual)
  - AI for Health in India, Google Research, India (Virtual)
  - Theoretical Updates Section, NSF Site Visit/Review Meeting for the Expeditions Team (Expeditions: Collaborative Research: Global Pervasive Computational Epidemiology grant), The University of Virginia (Virtual)
  - Institute of Arctic and Alpine Research, University of Colorado, Boulder, CO (Virtual)
  - Simon A. Levin Mathematical, Computational and Modeling Sciences Center, Arizona State University (Virtual)
  - MathBio Seminar, School of Mathematical and Statistical Sciences, Arizona State University
  - World Laureates Forum (WLA), Moderator & Panelist for Möbius Forum; Panelist: WLA Carbon 2021 Series: Climate Change and Biodiversity) (Virtual)
  - Global Pervasive Computational Epidemiology (GPCE) Seminar Series, the University of Virginia (Virtual)
  - Fung Global Fellows Program, PIIRS (Virtual)
  - Luohan Academy Frontier Dialogue #7: Boosting Shared Prosperity: Technology and Equality in the Digital Era, Luohan Academy (Virtual)
- 2020
- Widely Applied Maths Seminar Series, Applied Maths Dept., Harvard University
  - NAE Convocation of Professional Engineering Societies (Virtual)

- Social Externalities: A Workshop on Concepts and Applications; Panel: Conceptualizing Social Externalities Across the Disciplines, Princeton University (Virtual)
  - Don't Waste the Covid-19 Crisis: Reflections on Resilience and the Commons Revealed by Covid-19, A Webinar Panel Series, Hosted by the Center for Behavior, Institutions and the Environment, and the International Association for the Study of the Commons at ASU, and the Resilience Alliance (Virtual)
  - Virtual Town Hall with President Julio Frenk of the University of Miami on Mathematical Modeling of Pandemics, COVID-19, and Social Consequences Across the Americas
  - Global Pervasive Computational Epidemiology Seminar Series, with Dylan H. Morris, Fernando W. Rossine, and Joshua B. Plotkin, University of Virginia (Virtual)
  - Introduction Discussant, and Concluding Remarks, Evolutionary Models of Financial Markets, MIT Laboratory for Financial Engineering (Virtual)
  - Special Guest, Coarse Graining in Ecology, Andrew Hein's Zoom Reading Group on Course Graining in Ecology, NOAA Southwest Fisheries Science Center, USCS Institute of Marine Sciences (Virtual)
  - SSE-CERN webinar on "Masks, Public Goods and Social Norms," with Stefani Crabtree and Luojun Yang
  - Complex Adaptive Systems Meeting, Greater Philadelphia Futures Group, Delaware Valley Regional Planning Commission (Virtual)
  - International Forum on Advanced Environmental Sciences and Technology (iFAST), (Virtual)
  - Institutions and Cooperation Section, The Evolution of Cooperation, Gruter Institute for Law and Behavioral Research Virtual Squaw Valley Conference
  - Google Virtual COVID-19 Modeling + Data Virtual Roundtable Discussion
  - Department of Biological Sciences, Simon Fraser University (Virtual)
  - What Can We Learn from the Anti-Vaccination controversy? Council on Science and Technology, Living at the Intersection Symposium 2020: Truth and Evidence Conference (Virtual)
  - 3rd World Laureates Forum, Summit Series 3: What Next? Climate Change and the Fate of Humanity (Virtual)
  - SFI Working Group, Ecological Complexity and the 6th Extinction (Virtual)
  - Historical Collapse Webinar, Princeton University (Virtual)
  - Winter School on Quantitative Systems Biology: Quantitative Approaches in Ecosystem Ecology, Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy (Virtual)
  - Panelist, A Celebration of the Life of Bob May 1936-2020, BES Symposium (Virtual)
- 2019
- Climate “How”: How to Engage Society and Deploy Decarbonization Conference, Venice International University, Italy
  - Annual Dinner, Princeton Alumni Association of Palm Beach, FL
  - Historical Systemic Collapse Workshop, Princeton University
  - Climate Change Perspectives Seminar Series, Cornell University
  - Atkinson Center, Cornell University
  - EEB Special Seminar, Cornell University
  - Climate Change, Decarbonization and Financial Markets Roundtable, Norges Bank Investment Management, New York, NY
  - University of Washington Microbiology Seminar Series, University of Washington, Seattle
  - Public Lecture, University of Victoria
  - Princeton-Humboldt Cooperation and Collective Cognition Network Meeting, Humboldt University of Berlin, Germany (with Mari Kawakatsu and Corina Tarnita)
  - Ecological Society of American Annual Meeting, Louisville, KY
  - Three Decades of DIMACS: The Journey Continues Conference, Rutgers University
  - Dreams and Nightmares: Decarbonization in a Complex System Conference, Princeton University
  - DYSoC and NIMBioS, The University of Tennessee, Knoxville
- 2018
- Sackler Colloquium: Economics, Environment, and Sustainable Development, University of California, Irvine
  - Exxon-Mobile-Princeton Climate Change Policy Form, Andlinger Center, Princeton University
  - The BCG Henderson Institute and the Institute for New Economic Thinking, New York, NY
  - MPE 2018: Workshop on Mathematics of Planet Earth – The Future, Rutgers University, New Brunswick, NJ
  - Collective Behavior, social media, and Systemic Risk Conference, Princeton University
  - Santa Fe Institute Population and the Environment Working Group and Short Course, Santa Fe, Santa Fe Institute, Santa Fe, NM
  - Utrecht University, The Netherlands (2 lectures)

- 2017
- What is Blue Growth? Conceptualizing Sustainable Development of Marine Environments, AAAS Annual Meeting, Boston, MA
  - Mathematics Department, University of Miami
  - Movement Ecology of Animals Gordon Research Conference, Ventura, CA
  - Princeton Environmental Institute, Faculty Seminar Series
  - Conference on Theory and Biology, Simons Foundation, New York, NY
  - Data Big and Small, TTI Vanguard Conference, Boston, MA
  - Sir Roy Anderson's 70<sup>th</sup> Birthday Research Symposium, The Royal Society, London, UK
  - Humboldt University-Princeton University Strategic Partnership Workshop, Princeton University
  - CANDy Workshop. Andlinger Center for Energy and the Environment, Princeton University
  - Simons Foundation MMLS Workshop: A New Framework for Ecological Kinetics in Heterogeneous Environments, Princeton University
  - Coastal SEES Meeting, Rutgers University
  - Joint ICGEB-ICTP-APCTP Workshop on Systems Biology and Molecular Economy of Microbial Communities, Trieste, Italy
  - Research Experiences for Undergraduates Summer Program, DIMACS, Rutgers University
  - Resilience 2017: Resilience Frontiers for Global Sustainability Conference, Stockholm Resilience Centre, Sweden
  - Institute of Mathematical and Computing Engineering of the Pontificia Universidad Católica de Chile
  - Math Colloquium, University of Maryland, College Park
  - Earth in 2050: Boundaries, Obstacles, and Opportunities Conference, Princeton University
  - School of Life Sciences and School of Sustainability, Arizona State University
  - Pioneer a Brighter Future, Today Conference, Envision, Princeton University
  - Water Solutions for Mathematical Problems Lecture Series, Princeton University
- 2016
- EEB Career Conversations, Princeton University
  - Mathematical Methods for Water Problems, Princeton University
  - Molecular Co-Evolution Lessons from Pathogen-Immune System Interactions Conference, Princeton Center for Theoretical Science, Princeton University
  - University of Virginia, Charlottesville, Dept. of Environmental Studies
  - Immersion Workshop, SESYNC, Annapolis, MD
  - Nassau Club, Princeton, NJ
  - Modelling and Predicting Ecological Transitions Symposium, Collège de France
  - Ecopotential General Assembly, Amsterdam, The Netherlands
  - Critical Transitions in Marine Ecosystems Conference, Princeton University
  - South African Centre for Systems Analysis
  - Beijer Institute 25, Annual Meeting, Askö Sweden
  - Inaugural Speaker, MBI National Webcast Colloquium
  - Mathematical Methods for Water Problems Lunch Seminars, PACM, Princeton University
  - Beijing International Center for Mathematical Research, Peking University, China
  - The Center for Human-Environmental System Sustainability (CHESS), State Key Laboratory of Earth Surface Processes and Resource Ecology (ESPRE), Beijing Normal University, (BNU) China
  - Fudan University, Shanghai
  - International Workshop Sustainability of Local Commons with a Global value: Venice and Its Lagoon, San Giorgio Maggiore, Italy
- 2015
- Task Force on the Natural Sciences, Princeton University
  - Validation: What Is It? Conference, Institute for Mathematical and Behavioral Sciences, UC, Irvine
  - Institute for Mathematical Behavioral Sciences Colloquium, UC, Irvine
  - MASpread /RAPID Trade Meeting, University of Arizona, Tempe
  - Luca Pacioli Prize Acceptance Lecture, Ca'Foscari University of Venice, Italy
  - IGB Colloquium, Leibniz Institute of Freshwater Ecology and Inland Fisheries, Berlin, Germany
  - Business Strategy Interfaces and Frontiers, PRISM Foundation, New York, NY
  - NetSci – International School of Conference on Complex Networks, La Herradura, Spain
  - Ecology, Conservation and Human Well-Being: Improving Outcomes for Nature and People Symposium, ESA Annual Meeting and 100<sup>th</sup> Anniversary
  - Reinventing the Investment Industry, Business Network Topical Meeting, London, England

- Unlocking the Microbiome, Wellcome Trust, London, England
  - EEB Seminar Series, Yale University
  - Weekend of Learning, Class of 1968, Princeton University
  - Bottom-Up Evolution of Cooperation: Linking Local and Global Environmental Commons, London School of Economics and Political Science, London, England
  - IIASA Systems Analysis Conference, Laxenburg, Austria
  - Commencement Address (on receiving Honorary Doctorate of Science), McMaster University
  - Mathematical Biology Research Seminar, McMaster University
  - Mathematics and the Quest for Fundamental Principles of Biology Conference, University of Utah, Salt Lake City
- 2014
- Institute for Mathematical Behavioral Sciences Colloquium, UC, Irvine
  - Mathematics Education Program, UC, Irvine
  - Distinguished Lecturer, ICTP South American Institute for Fundamental Research, San Paolo State University, San Paolo, Brazil (three lectures)
  - Department of Ecology, Evolution and Environmental Biology Seminar Series, Columbia University
  - Workshop on Climate Change and Public Goods, Fondazione Eni Enrico Mattei, Venice, Italy
  - Nurturing Ideas and Scientists in Ecology: Symposium in Honor of Bill Robertson, ESA Annual Conference, Sacramento, CA
  - Symposium in Honor of Alan Hastings, University of California, Davis
  - Advances in the Plankton Ecosystem Model and the Evaluation of Biodiversity, Tokyo University of Marine Science and Technology, Japan
  - IIASA-Austrian Academy Lecture Series, Laxenburg, Austria
  - Program in Science, Technology, and Environmental Policy (STEP) Lecture Series, Woodrow Wilson School, Princeton University
- 2013
- Department of Physics and Astronomy Colloquium, UC Irvine
  - Institute for Mathematical Behavioral Sciences Colloquium, UC Irvine
  - Mathematics of Planet Earth Lecture Series 2013, Australian Mathematical Sciences Institute, University of Melbourne (2 lectures), Australia
  - AAAS Symposium: Getting to Global Ecological Sustainability: Climate and Small-Planet Ethics, AAAS Annual Meeting, Boston, MA
  - A Crude Look at the Whole Conference, Complexity Program, Nanyang Technological University (NTU); co-sponsored by the Institute for Advanced Studies (IAS) at NTU, Singapore
  - Mathematics Department Colloquium, Tulane University
  - Natural Algorithms and the Sciences Workshop, Center for Computational Intractability, Princeton, NJ
  - Steklov Mathematical Institute, Russian Academy of Sciences, Moscow, Russia
  - Atelier de Réflexion Prospective: Mathématiques en Interactions pour la Terre, Institute Henri Poincaré, Paris, France
  - Collège de France, Paris, France
  - Atlantic Association for Research in the Mathematical Sciences (AARMS) Mathematical Biology Workshop, Memorial University, St. John's, Newfoundland
  - ESA Annual Meeting, Minneapolis
  - Special Session: Managing the World's Forests as Complex Adaptive Systems – Sustainable Pathways for a Changing World, ESA Annual Meeting, Minneapolis, MN
  - Ecology: Into the Next 100 Years, International Association for Ecology (INTECOL) 2013, London, UK
  - Gateways to Emergent Behavior in Science and Society Workshop, Santa Fe Institute, Santa Fe, NM
  - NorMER Annual Meeting, Reykjavik, Iceland
  - Math Across Campus Colloquium Series, University of Washington, Seattle
- 2012
- Evolution of Religious and Social Norms Conference, IMBS Conference, UC Irvine
  - Emergent Issues in Ecology Lecture Series, NEAT, ORU, and Peter A. Rock Thermochemistry Laboratory, UC Davis
  - High Table Dinner, Graduate College, Princeton University
  - The Social Biology of Microbial Communities, Institute of Medicine of the National Academies, Forum on Microbial Threats, Washington, D.C.
  - Critical Transitions in Complex Systems Workshop, Imperial College, London
  - Boston Consulting Group, New York, NY

- Spatial Models of Micro and Macro Systems Workshop, Mathematical Biosciences Institute, The Ohio State University, Columbus, Ohio
  - NSF/ARL Locomotion Systems Science Meeting/Workshop, Arlington, VA
  - SIAM Annual Meeting, Minneapolis, MN
  - Gordon Research Conference (Metabolic Basis of Ecology and Evolution in a Changing World), University of New England, Biddeford, Maine
  - Math Biology: Looking at the Future, MPI 10<sup>th</sup> Anniversary Meeting, The Ohio State University, Columbus, OH
  - NoMER Annual Meeting, Helsinki, Finland
  - IIASA 40<sup>th</sup> Anniversary Conference, Laxenburg, Austria
  - NIMBIOS Interdisciplinary Seminar, University of Tennessee, Knoxville
  - ATP Group, Centro de Matemática e Aplicações Fundamentais, Universidade de Lisboa, Portugal
- 2011
- Systems Biology Seminar Series, The Center for Complex Biological Systems and The Mathematical, Computational and Systems Biology Graduate Program, UC Irvine
  - International Seafood Sustainability Foundation, Allocation Workshop, Theoretical Approaches to Allocation of Common Property Resources, Yountville (Napa Valley), CA
  - IBMS Colloquium, UC Irvine
  - Research Frontiers in Sustainability Science: Bridging Disciplines and Practices Workshop, AAAS Annual Meeting, Washington, DC
  - Sustainability Seminar Series, Network for Emerging Leaders in Sustainability, NAS, Washington DC
  - Universiteit van Amsterdam, Institute for Biodiversity and Ecosystem Dynamics, Amsterdam, The Netherlands
  - Utrecht University, Utrecht, The Netherlands
  - Mathematical Biology Workshop and IGTC Summit, University of Victoria, Victoria, British Columbia, Canada
  - Mathematical Models in Ecology and Evolution Conference, University of Groningen, The Netherlands
  - Honorary Lecture, Math and Theoretical Ecology (MATE), University of Essex, UK
  - Mathematical Ecology Workshop, Kyushu University, Japan
  - Humboldt State University, Arcata, CA
- 2010
- 2<sup>nd</sup> Symposium of Mathematical Systems Biology: Collective Dynamics in Biological Systems, University of California, Irvine
  - Institute for Mathematical Behavioral Biosciences Colloquium, University of California, Irvine.
  - Public Goods: From Ecology to Economics Conference, Institute for Mathematical Behavioral Sciences, University of California, Irvine
  - Environmental Affairs Forum, Princeton University
  - “Ecological, Evolutionary and Economic Perspectives on Biodiversity” (course), University of Puerto Rico-Rio Piedras, San Juan
  - NSF Lecture Series (co-sponsor NSF Directorate for Biological Sciences)
  - Evolution, Ethics, and Environment: Biological Perspectives on Achieving a Sustainable Future Symposium (In Honor of the Inamori Foundation and Kyoto Prize Laureates B. Rosemary Grant, Peter R. Grant, Simon A. Levin, and Daniel H. Janzen, Princeton University)
  - Lecturer/Discussant, Development Challenges in a Post-Crisis World (Environmental Commons and the Green Economy), Annual Bank Conference on Development Economics, Stockholm, Sweden
  - Life Sciences Institute Seminar, The Hebrew University of Jerusalem
  - Cornell University, Department of Ecology and Evolutionary Biology
  - Margalef Prize Lecture, Barcelona, Spain
  - SFI Business Network Topical Meeting: Uncertainty, Risk and Vulnerability, New York, NY
  - Advanced School on Complexity, Adaptation, and Emergence in Marine in Marine Ecosystems, Trieste, Italy
  - International Symposium on Sustainability Science, Institute for Sustainability Studies, Montclair State University
  - World Bank, Development Economics (DEC), Operations and Strategy, Washington, DC
  - Resources for the Future, Washington DC
  - Disease in Motion Conference, Princeton University
  - MIT, Civil and Environmental Engineering, Environmental Fluid Mechanics, Hydrology Seminar Series
- 2009
- Institute for Mathematical Behavioral Sciences Meeting, University of California, Irvine

- IMBS Meeting, University of California, Irvine
  - Department of Ecology and Evolution, State University of New York, Stony Brook
  - Pardee Center Faculty Seminar on Sustainability, Boston University
  - The Center for Quantitative Biology, Inaugural Workshop, University of Utah
  - Graduate Student Invited Speaker, The School of Aquatic and Fishery Sciences, University of Washington, Seattle
  - Science, Democracy, and Global Environmental Regulation Workshop, Princeton University
  - Oster-Inspired Research Conference, University of California, Berkeley
  - Lecturer on Sustainability, IIASA, Laxenburg, Austria
  - Conference on Evolution of Cooperation, Models, and Theories, IIASA, Laxenburg, Austria
  - Santa Fe Institute Systemic Risk Initiative Meeting and Working Group, New York
  - Socio-Economic Strategies and Resource Dynamics Conference, Fondazione Giorgio Cini, San Giorgio Maggiore Island, Venice Italy
  - Graduate Student Nominated Speaker, Department of Biology, Organismal Seminar Series, McGill University
  - Centre for Applied Mathematics in Bioscience and Medicine (CAMBAM), The CAMBAM Seminar Series, McGill University
  - Graduate Student Invited Lecturer, Dynamical Systems and Mathematical Modeling, (Graduate Student Organized Course), Princeton University
  - DIMACS 20<sup>th</sup> Birthday Conference: Looking Back: Looking Forward, Rutgers University, New Brunswick, NJ
- 2008
- Institute for Theoretical and Mathematical Ecology Colloquium, University of Miami, Miami, FL
  - Institute for Mathematical and Behavioral Sciences Conference, Luce and Raiffa After 50 Years: What is Next?, Irvine, California
  - Applied Math and Computer Science Colloquium, University of Pennsylvania, Philadelphia, PA
  - Planning for Resilience Conference, Stony Brook-Millstone Watershed Association, Pennington, NJ
  - Cornell Probability Summer School, Cornell University, Ithaca, NY
  - European Summer School in Resource and Environmental Economics (“Space in Unified Models of Economy and Ecology”), Venice International University, Venice, Italy
  - BIRS (Banff International Station for Mathematical Innovation and Discovery) Workshop, Canada
  - Santa Fe Institute, SFI Workshop: Complexity and Foreign Policy: First Steps to an Emerging Paradigm
  - 16th Askö Meeting, Multiple Shocks and the Challenges of the Global Economy, The Beijer Institute
  - Economics-Sociology Fall Workshop Series, Depts. of Economics and Sociology, Princeton University
  - Sustaining the Global Commons: An Experimental Approach, PIIRS Conference, Princeton University
  - Festschrift to Honor Burton Singer, Princeton University
  - National Science Foundation, Advisory Committee for Environmental Research and Education, Washington, DC
  - Graduate Student Invited Lecturer, Dynamical Systems and Mathematical Modeling, (Graduate Student Organized Course), Princeton University
  - Applied Mathematics Seminar, Taida Institute of Mathematics, National Taiwan University
- 2007
- Distinguished Lecturer, Department of Mathematics, UCI, Irvine, CA
  - Summer School on Environmental Dynamics: Pathways to Ecological Sustainability, Istituto Veneto di Scienze Lettere ed Arti, Venice, Italy
  - AAAS Meeting, San Francisco
  - Panel, Resources for the Future, Frontiers of Environmental Economics Conference, Washington DC
  - Resources for the Future Conference on Extending the Cure, Washington, DC
  - Santa Fe Institute Board Symposium, Sustainability and Complex Adaptive Systems
  - IIASA/Young Scientists Summer Program Lecture (YSSP), Learning to Live in a Global Commons: Socioeconomic Challenges for a Sustainable Environment, Vienna, Austria (available as IIASA podcast)
  - Workshop on Infectious Diseases, Stellenbosch, South Africa
  - Santa Fe Institute President’s Circle, Conservation, Robustness and Biodiversity
- 2006
- Institute for Mathematical Behavioral Sciences, University of California, Irvine, CA
  - Institute for Social and Economic Research and Policy, Columbia University, New York, NY
  - Rotary Club, San Diego, California
  - Workshop on Climate Change, Upwelling, Fisheries, and Coastal Communities, ICTP/IIASA, Trieste, Italy
  - Science Colloquium, The College of New Jersey, Ewing, NJ

- Kyoto Laureate Symposium, University of California, San Diego, CA
  - Workshop on Stochastic Models in Biological Sciences, European Science Foundation, Stefan Banach International Mathematical Center, Warsaw, Poland
  - New Directions for Understanding Systemic Risks in the Financial Sector, NRC/BMSA and Federal Reserve Bank of New York, NY
- 2005
- Alpine Summer School: “Water-Vegetation Interactions and Biodiversity in Changing Environments,” Aosta Valley, Italy (2 lectures)
  - Bucks County Audubon Society, New Hope, PA
  - Clay Senior Scholar for the Park City Mathematics Institute 2005 Program on Mathematical Biology, Salt Lake City, UT (3 Lectures)
  - Conference on Linking Economic and Ecological Models for Environmental Policy Analysis: Challenges and Research Strategies, Santa Fe, NM, Sponsored by North Carolina State University
  - Conservation and Science Program Workshop, David and Lucile Packard Foundation, Los Altos, Ca
  - Departments of Ecology & Evolutionary Biology and Mathematics, Environmental Semester Colloquium, University of Tennessee, Knoxville
  - Department of Mathematics, University of Miami, Coral Gables (2 lectures)
  - Dialogues in Nature, Science and Religion (Lecture Series), University of California, Santa Barbara
  - Implementing Marine Ecosystem-Based Management: A Workshop on Applying Resilience Theory to Improve Ocean Management, Resilience Alliance (funded by the Packard Foundation) Princeton, NJ
  - Institute of Mathematical Behavioral Sciences Colloquia, UC Irvine
  - Investigator Symposium, Gordon and Betty Moore Foundation, San Francisco, CA
  - Marschak Interdisciplinary Colloquium Lecture, Anderson School of Management, UC Los Angeles
  - Workshop on Collectives Formation and Specialization in Biological and Social Systems, Santa Fe, NM, Sponsored by Los Alamos National Laboratory
  - Workshop on Infectious Disease: Theoretical, Ecological and Economic Approaches, ICTP, Trieste, Italy
  - Workshop on Social Norms and Social Networks, Boston, MA, Sponsored by Santa Fe Institute
- 2004
- Advisory Committee and Session Co-organizer, Friday Harbor Laboratory (FHL) Symposium, Managing for Resilience: An Integrated Approach to Coastal Marine Science and Conservation, FHL, WA
  - Department of Mathematics, University of Miami, Coral Gables, FL (2 lectures)
  - Center for Stock Assessment Research (CSTAR), University of California, Santa Cruz
  - Evolutionary Game Theory Conference, University of California, Irvine
  - Special Associated Faculty Seminar Series, Princeton Environmental Institute, Princeton University
  - Summer School on Environmental Dynamics, Istituto Veneto di Scienze, Lettere ed Arti, Venice, Italy (4 lectures)
  - Joint Conference on Computational and Mathematical Population, 7th Mathematical Population Dynamics (MPD) and the 3rd Conference on Deterministic and Stochastic Models for Biological Interactions (DeStoBio). Trento, Italy
  - Discussant, Forum on the Environment: Bush and Kerry on Environmental Policy, Princeton University
  - Department of Mathematical Sciences and Center for Applied Mathematics and Statistics, New Jersey Institute of Technology
  - Heineken Prize Lecturer, Royal Netherlands Academy of Arts and Sciences
  - Presentation to NSF-STC Site Visit Review Team, California Institute of Technology
- 2003
- 6<sup>th</sup> International Temperate Reef Symposium, Christchurch, New Zealand
  - Conference on Theoretical Topics in Ecological Economics, First School on Ecological and Environmental Economics, Trieste, Italy; co-sponsored by International Centre for Theoretical Physics (ICTP), Fondazione Eni Enrico Mattei (FEEM), The Beijer Institute
  - Energy Resources Group Colloquium, University of California, Berkeley
  - Integrative Biology Departmental Seminar, University of California, Berkeley
  - Department of Biology, McGill University, Montreal, Canada
  - Department of Mathematics, University of Maryland, College Park, MD
  - Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs, CT
  - Conference on Application of Discrete Mathematics and Theoretical Computer Science: A Celebration in Honor of the Contributions of Fred S. Roberts on the Occasion of his 60th Birthday, DIMACS Center, Rutgers University
  - Marine Science Research Center, State University of New York, Stony Brook (2 lectures)

- Chemical Engineering, Princeton University
  - School of Engineering and Applied Science (SEAS), Princeton University
  - Workshop on Future Directions in the Study of Collective Animal Behavior, University of Oxford, UK
  - Michael Perkins Lecturer, Department of Zoology, University of Cambridge, UK
  - Workshop on Ecosystem Evolution and Evolution in Ecosystems, European Science Foundation, Fen, Sweden
- 2002
- Mathematics and Molecular Biology VII: Modeling Across the Scales—Atoms to Organisms, Program in Mathematics and Molecular Biology (PMMB), Santa Fe, NM
  - Distinguished Lecture Series for 2002, Mercer County Community College, East Windsor, NJ
  - DIMACS Working Group on Mathematical Sciences Methods for the Study of Deliberate Releases of Biological Agents and Their Consequences, Rutgers University, Piscataway, NJ
  - Earth System Initiative Seminar, MIT, Cambridge, MA
  - INRA Centre at Versailles, Paris, France
  - Current Themes in Ecology Symposium “Spatial Ecology,” Universities of Wageningen and Nijmegen, and the Netherlands Institute of Ecology, Wageningen, The Netherlands
  - International Symposium on Intervention and Adaptation in Complex Systems, Santa Fe Institute and Institute of Systems Sciences, Beijing, China
  - Center for the Study of Institutions, Population, and Environmental Change, University of Indiana, Bloomington
- 2001
- Okubo Award Lecturer, SMB and JAMB Annual Meeting, Hilo, HI
  - Environmental Research and Education Distinguished Lecturer, NSF
  - Advisory Council meeting on Modeling Approaches to Bioterrorism, National Institutes of Health
  - Self-Healing Networked Information Systems Meeting, Defense Advanced Research Projects Agency (DARPA)
  - Department of Biological Sciences, Stanford University
  - Institute of Ecology, University of Georgia
  - Victor Rothschild Memorial Symposia, 12<sup>th</sup> Jerusalem Summer School in Economic Theory, The Institute for Advanced Studies at the Hebrew University (4 lectures)
  - Mathematics Institute, Warwick University, UK
  - Department of Biology, Arizona State University
  - Center for Environmental Research and Conservation and the Nonlinear Systems Group, Columbia University
  - Northwest Indian College, Bellingham, WA
- 2000
- XIII International Congress on Mathematical Physics, Imperial College, London, UK
  - Symposium on Simplicity and Complexity—A Global Perspective, Santa Fe Institute, Santa Fe, NM
  - International Conference on Complex Systems, New England Complex Systems Institute, Nashua, NH
  - U.S. Department of the Interior Staff Retreat, Shepherdstown, W VA
  - Biology Initiative Review Committee Meeting, Institute for Advanced Study, Princeton, NJ
  - Real World Colloquium, Massachusetts Institute of Technology, Cambridge, MA
  - Danish Institute for Fisheries Research, Workshop on Scaling from Individuals to Populations, Charlottenlund Castle, Denmark (2 lectures)
- 1999
- International School of Ethology 6th Course: Fondazione Eni Enrico Mattei (FEEM), Seminar on Biodiversity: An Economic and Naturalistic Integrated Approach, Erice, Italy (2 lectures)
  - Distinguished Lecturer on the Global Environment, Columbia University, NY
  - 81<sup>st</sup> Statistical Mechanics Conference, Rutgers University, NJ
  - NSF Symposium on Environmental Research, Education and Assessment, Los Angeles, CA
  - NATO Advanced Studies Institute: Problems Arising from Biology, Fields Institute, Toronto, Canada (2 lectures)
- 1998
- INTECOL VII International Congress of Ecology, Florence, Italy (2 lectures)
  - Society for Advancement of Chicanos and Native Americans in Science (SACNAS), Washington, DC
  - The University of British Columbia, Crisis Points Group of the Wall Institute of Advanced Study Vancouver, BC (3 lectures)

- The Joseph H. McLain Program in Environmental Studies, Washington College, Chestertown, MD
- Hard Problems in Oceanography Lecture Series, Woods Hole Oceanographic Institution, Woods Hole
- Integrative Themes Workshop, Santa Fe Institute, NM
- Resilience Network for Economic/Ecological Modeling, Malta
- 1997 • Third Joint Meeting of the Sociedad Matemática Mexicana and American Mathematical Society, Oaxaca, Mexico
- Workshop on Biodiversity and Ecological Complexity, Kyoto University, Japan
- International Conference on Differential Equations with Applications to Biology, Dalhousie University, Halifax, Nova Scotia
- International Conference on Mathematical Biology (ICMB)'97, Hangzhou, China (Program Committee)
- New York Academy of Sciences, Mathematics Section, NY
  
- 1996 • Woods Hole Oceanographic Institution, Department of Biology, Woods Hole, MA
- Summer Intern Program on Probability and Stochastic Processes, University of Wisconsin, Madison (4 lectures)
- Kyoto Conference on Mathematical Biology '96, Kyoto, Japan, (Advisory Board, 1995-96).
- Workshop on Ecomachines and Spatial Modeling in Ecology and Biology, Santa Fe Institute, NM
- Workshop/Conference on Spatial Ecology: The Role of Space in Population Dynamics and Interspecific Interactions, National Center for Ecological Analysis and Synthesis (NCEAS), Santa Barbara, CA
- Third Autumn Workshop on Mathematical Ecology, ICTP, Trieste, Italy (3 lectures)
  
- 1995 • International Workshop on Applications of Dynamical Systems to Biology, Technion - Israel Institute of Technology, Haifa, Israel
- An Interdisciplinary Symposium on Complex Systems, University of Michigan, Ann Arbor, MI
- Annual Meeting of the Society for Mathematical Biology, Oaxtepec, Morelos, Mexico (2 lectures)
- Pacific Northwest Workshop on Mathematical Biology, University of British Columbia, Vancouver, BC, Canada
- 80th Anniversary Meeting of the ESA; Symposium on What can Theoretical Ecology do for Applied Ecology; Panelist, "Developing the Connection Between Population Pressures and Biodiversity," Snowbird, UT
- Eminent Ecologists and Biologists Seminar Series, Michigan State University, Kellogg Biological Station, Hickory Corners, MI (2 lectures)
- 16th Annual Midwest Conference on Population Biology, Keynote Speaker, Iowa State University, Ames, IA
- Special Year in Mathematical Biology, Principal Lecturer, University of Utah, Salt Lake City, UT
  
- 1994 • The 9th Annual U.S. Landscape Ecology Symposium, University of Arizona, Tucson, AZ
- Pacific Northwest Workshop on Mathematical Biology, Washington State University, Pullman, WA
- Symposium on Nonlinear Systems in Medicine and Biology, Indiana University—Purdue University, Indianapolis, IN
- Spatial Stochastic Models in Biology, University of Colorado and the National Science Foundation, Colorado Springs, CO
- International Conference on Differential Equations and Applications to Biology and to Industry, Harvey Mudd College, Claremont, CA
- Canadian Applied Mathematical Society, University of Montreal
- Mathematical Models for Infectious Diseases, Mathematisches Forschungsinstitut Oberwolfach, Germany
  
- 1993 • International Symposium on Ecological Perspective of Biodiversity, Kyoto, Japan
- Center for Ecological Research, Kyoto University, Kyoto, Japan
- Mathematical Sciences Symposium: Spatial Processes in Biology, Departments of Mathematics and Zoology, University of Wisconsin, Madison, WI
- Ecotoxicology Conference, University of California Ecotoxicology Program, co-host-UC Davis' USEP Center for Ecology Health and Research Department of Wildlife and Fisheries Biology, Sacramento, CA
- Generalizing Across Marine and Terrestrial Ecology, The Royal Society, London, UK
- Ciba Foundation/Royal Society Discussion Meeting on The Organization of Ecological Research, London
- CRM-UBC Summer School on Mathematical Biology (3 lectures), Canada
- Models of Ocean Physical/Ecological Processes, ONR URIP, Woods Hole Oceanographic Institution, MA
- A NATO Advanced Research Workshop on Epidemic Models: Their Structure and relation to data, Isaac Newton Institute, Cambridge, UK

- Summer School of Nonlinear Systems in Evolutionary and Population Biology, The Netherlands
  - G.J. Butler Workshop in Mathematical Ecology at the Applied Mathematics Institute, Waterloo, Canada
- 1992
- Workshop on Monitoring the Health of Large Marine Ecosystems, Cornell University, Ithaca, NY
  - Presidential Lecture, Annual Meeting, ESA, Honolulu, HI
  - International Conference on the Definition and Measurement of Sustainability: The Biophysical Foundations, Washington, DC
  - Environmental Address, Annual Meeting of the American Mathematical Society/Mathematical Association of America, Baltimore, MD
  - Second Autumn Workshop on Mathematical Ecology, ICTP, Trieste, Italy
- 1991
- Review course (5 lectures), Conference on Mathematical Problems in Environmental Protection and Ecology, Trento, Italy
  - Dedication Ceremony, Gilbert Biological Sciences Building, Stanford University, Stanford, CA
  - 52nd Annual Biological Colloquium, Oregon State University, Corvallis, OR
  - Symposium on Theoretical Approaches for Predicting Spatial Effects in Ecological Systems, Annual Meeting, ESA, San Antonio, TX
  - Pacific Northwest Mathematical Biology Meeting, University of British Columbia, Vancouver, BC, Canada
- 1990
- International Conference on The Large Marine Ecosystem (LME) Concept and Its Application to Regional Marine Resource Management, Monaco
  - Workshop on Populations, Community, and Ecosystems: An Individual Perspective, Knoxville, TN
  - International Conference on Differential Equations and Applications to Biology & Population Dynamics, Claremont, CA
  - Third Autumn Course on Mathematical Ecology, ICTP, Trieste, Italy
  - 5th International Congress of Ecology (INTECOL 1990), Yokohama, Japan (2 lectures)
  - Fukuoka Symposium of Theoretical Biology, Kyushu University, Fukuoka, Japan (2 lectures)
- 1989
- Latin American Workshop on Mathematical Ecology, Rio de Janeiro, Brazil (3 lectures)
  - Conference on Grand Challenges to Computational Science, Molokai, HI
  - The Institute for Advanced Study, Princeton, NJ (2 lectures)
  - University of Tennessee, Oak Ridge National Laboratory Distinguished Lecturer Series in the Life Sciences
  - Conference on The Genetic Revolution: Scientific Prospects and Public Perceptions, American Academy of Arts and Sciences, Cambridge, MA
  - Davis Conference on Population Structure, University of California, Davis
- 1988
- First Autumn Workshop on Mathematical Ecology, ICTP, Trieste, Italy
  - SCOPE Conference on Ecosystem Experiments and Global Environmental Problems, Mitwitz, Germany
  - VIIth General Assembly of SCOPE (Scientific Committee on Problems of the Environment), Budapest, Hungary
  - Annual Conference of the Mathematical Association, University of Birmingham, England
  - Conference on Mathematical Modelling of Fate, Transport, and Effects of Pollutants in the Environment, Cornell University, Ithaca, NY
- 1987
- Symposium on Theory and Management of Large Marine Ecosystems, AAAS meeting, Boston, MA
  - Symposium on Hazards of Biotechnology: Real or Imaginary, University College and Middlesex School of Medicine, London, England
  - Workshop on Regulatory Considerations for the Testing and Use of Genetically Engineered Plants, Boyce Thompson Institute for Plant Research at Cornell University, Ithaca, NY
  - International Symposium on Mathematical Approaches to Environmental and Ecological Problems, Cornell University, Ithaca, NY
  - Conference on Genetically Designed Organisms in the Environment, Scientific Committee on Problems of the Environment and the Committee on Genetic Experimentation, Bellagio, Italy
  - NATO Advanced Study Institute Seminar on Mathematical and Statistical Developments of Evolutionary Theory, University of Montreal, Canada (6 lectures)
  - Distinguished Visitor Program in Applications of Mathematics, Emory University, Atlanta, GA (4 lectures)
- 1986
- The Interface of Mathematics and Population Biology, University of California, Riverside (4 lectures)
  - Fourth International Congress of Ecology, Syracuse, NY (2 lectures)

- Workshop on Array and Parallel Processing and Landscape Dynamics, Colorado State U, Pingree Park, CO
- Second Autumn Course on Mathematical Ecology, ICTP, Trieste, Italy (4 lectures)
  
- U.S. Environmental Protection Agency, Office of Pesticides and Toxic Substances Seminar Series, Washington, D.C.
- International Symposium on Mathematical Biology, Kyoto, Japan
- The 1986 Washington International Conference on Biotechnology (CEEM), Alexandria, VA
  
- 1985
  - Annual Meeting, Western Society of Naturalists, Monterey, CA
  - Annual Meeting, American Society of Zoologists, Baltimore, MD
  - Annual joint meeting of Ecological Society of America/American Society of Limnology and Oceanography; 4 Symposium Lectures, Minneapolis, MN
  - Cary Conference on the Status and Future of Ecosystem Science, Institute of Ecosystem Studies of The New York Botanical Garden, Millbrook, NY
  
- 1984
  - Distinguished Visiting Scholar, Marine Sciences Research Center, State University of New York at Stony Brook (3 lectures)
  - Joint meeting of Ecological Society of America/American Institute of Biological Sciences, Fort Collins, CO (2 Symposium Lectures)
  - Eminent Ecologists and Biologists Seminar Series, Michigan State University, Kellogg Biological Station, Hickory Corners, MI (2 lectures)
  
- 1982
  - Spring Systematics Symposium, Field Museum of Natural History, Chicago, IL
  - Annual Meeting of Society for Environmental Toxicology and Chemistry, Arlington, VA
  
- 1980
  - American Society of Zoologists Symposium on Theoretical Ecology, Seattle, WA
  - IMS Conference: The Mathematical Theory of the Dynamics of Biological Populations, Oxford, England
  
- 1979
  - International Conference on Synergetics, Schloss Elmau, Germany
  - Gordon Research Conference on Theoretical Biology and Biomathematics, Tilton, NH
  - International Symposium in Honor of Vito Volterra: Mathematical Models in Biology, Accademia Lincei, Rome, Italy
  - Regional meeting of Joint Ecology Groups, University of Washington and University of British Columbia at Vancouver, BC, Canada
  
- 1978
  - Symposium on Mathematical Modeling of Man-Environment Interactions, Telavi, Georgia, Russia. Soviet National Committee for SCOPE and U.S. International Environmental Problems Committee
  - Seminar on Collective Phenomena, Moscow, Russia
  - Second International Congress of Ecology, Jerusalem, Israel (2 lectures)
  - Biomathematics Conference, Oberwolfach, West Germany
  
- 1977
  - Taos Biomathematics Conference, Taos, NM (2 lectures)
  - NATO School of Marine Ecology, Erice, Sicily
  - Special Session on Mathematical Biology, American Mathematical Society annual meeting, St. Louis, MO
  - Symposium on the Role of Mathematics in Biology, AAAS meeting, Denver, CO
  - Symposium on Ecology and Genetics: The Interface. Annual Meeting: Society for the Study of Evolution, Ithaca, NY
  
- 1976
  - Gordon Research Conference on Theoretical Biology and Biomathematics, Tilton, NH
  - First Annual Northeast Regional Day of Applied Mathematics, Rensselaer Polytechnic Institute, Troy, NY
  - SIAM National Meeting, Chicago, IL010
  
- 1975
  - Symposium on Some Mathematical Questions in Biology, AAAS Annual Meeting, New York
  
- 1974
  - Conference Board on Mathematical Sciences (at annual meeting of AMS), San Francisco, CA
  - Distinguished Lecture Series, University of Maryland, College Park, MD (6 lectures)
  - University of California, Berkeley, CA (5 lectures)

- 1973 • SIAM Institute for Mathematics and Society Conference on Mathematics and Societal Problems, Sterling Forest

## FORMER PH.D. STUDENTS

### Cornell University

| Ph.D. | Name                        | Department/Program               | Current Position   |
|-------|-----------------------------|----------------------------------|--|
| 1971  | Wohl, Philip, R.*           | Applied Mathematics              | Deceased 1996  |
| 1973  | Udovic, J. Daniel*          | Entomology                       | Professor Emeritus, Dept of Biology and Environmental Studies, U Oregon  |
| 1974  | Sastre, Antonio             | Applied Mathematics              | Principal, Sastre Consulting, LLC  |
| 1977  | Hastings, Alan M.           | Applied Mathematics              | Professor; Chair, Environmental Studies, UC Davis  |
| 1979  | Gross, Louis, J.            | Applied Mathematics              | Professor, Mathematics, U Tennessee  |
| 1979  | Runkle, James, R.           | Ecology and Evolutionary Biology | Professor, Dept of Biology, Wright State U   |
| 1980  | White III, George N.        | Applied Mathematics              | Biomathematician, Bedford Institute of Oceanography  |
| 1981  | Kareiva, Peter M.*          | Ecology and Evolutionary Biology | President and CEO, The Aquarium of the Pacific   |
| 1981  | Nedelman, Jerry R.*         | Applied Mathematics              | Senior Director, TB Alliance, NY   |
| 1982  | Ellner, Stephen P.          | Applied Mathematics              | Professor, Dept Ecology and Evolutionary Biology, Cornell U  |
| 1984  | Castro Ospina, Jose Mildred | Applied Mathematics              | Deceased 2017  |
| 1985  | Craig, Catherine L.         | Ecology and Evolutionary Biology | Founder; Director, Conservation through Poverty Alleviation (CPALI)  |
| 1987  | Liu, Wei-min                | Applied Mathematics              | Biostatistician, Roche Molecular Systems, Inc. (RMI)   |
| 1988  | Andreasen, Viggo A.         | Applied Mathematics              | Professor, Dept of Science, Roskilde U, Denmark  |
| 1988  | Braner, Moshe               | Ecology and Evolutionary Biology | Statistical Analyst, Public Health Surveillance, VT Dept of Health   |
| 1989  | Cain, Michael L.            | Ecology and Evolutionary Biology | Research Associate, Dept of Biology and Mathematics, Bowdoin College   |
| 1991  | Adler, Frederick R.         | Applied Mathematics              | Professor, Dept of Mathematics and Biology, U Utah   |
| 1991  | Nuernberger, Beate D.       | Ecology and Evolutionary Biology | Evolutionary Biologist, Institute of Vertebrate Biology, Czech Academy of Sciences   |
| 1992  | Grünbaum, Daniel            | Ecology and Evolutionary Biology | Professor, U Washington  |
| 1994  | Limburg, Karin E.           | Ecology and Evolutionary Biology | Professor, Dept of Environmental Science and Forest Biology, SUNY, College of Environmental Science and Forestry, Syracuse |
| 1996  | Deutschman, Douglas         | Ecology and Evolutionary Biology | Professor, San Diego State U   |
| 1998  | Grevstad, Fritzi S.*        | Ecology and Evolutionary Biology | Biological Control Specialist, Olympic Natural Resources Center, U of Washington   |

### Princeton University

|      |                          |                                       |  |
|------|--------------------------|---------------------------------------|--|
| 1996 | Gandhi, Amar*            | Applied and Computational Mathematics | Group Project Manager, Google, Inc.  |
| 1996 | Palsson, Eirikur*        | Applied and Computational Mathematics | Associate Professor, Dept of Biology, Simon Fraser U   |
| 1997 | Dushoff, Jonathan        | Ecology and Evolutionary Biology      | Professor, Dept of Biology; Faculty of Science Research Chair, McMaster U, Canada  |
| 1998 | Smith, David L.          | Ecology and Evolutionary Biology      | Professor, Inst for Health Metrics & Evaluation, Dept of Global Health, U of Washington, Seattle   |
| 1999 | Solorzano, Luis A.       | Ecology and Evolutionary Biology      | Director of Conservation Science and Strategy, Tompkins Conservation, US   |
| 2001 | Muller-Landau, Helene C. | Ecology and Evolutionary Biology      | Staff Scientist, Smithsonian Tropical Research Institute   |
| 2002 | Ma, Junling              | Applied and Computational Mathematics | Associate Professor, Dept of Mathematics and Statistics, U of Victoria, Canada   |
| 2002 | Malvadkar, Urmila        | Quantitative Analyst                  | Structured Credit International Corp. (SCIC)   |
| 2003 | Chan, Kai, M.A.          | Ecology and Evolutionary Biology      | Canada Research Chair; Professor, Inst for Resources, Environment and Sustainability, University of British Columbia                                   |
| 2003 | Cline, Jon C.            | Ecology and Evolutionary Biology      | Lead Information Systems Engineer,   |
| 2003 | Keymer, Juan E.          | Ecology and Evolutionary Biology      | Faculty, University of Aysen, Chile  |
| 2003 | Plotkin, Joshua          | Applied and Computational Mathematics | Professor, Dept of Biology (SAS); Computer Information and Science (SEAS); Martin Meyerson Assistant Professor of Interdisciplinary Studies, U of Penn |
| 2003 | Worden, Lee              | Applied and Computational Mathematics | Epidemiologist, Proctor Foundation, UCSF   |

- 2003 Zea-Cabrera, Eduardo | Ecology and Evolutionary Biology | Asesor Gerencia General en Empresa De Acueducto, Alcantarillado y Aseo de Bogotá ESP, EAB-ESP
- 2004 Jolles, Anna E.\* | Ecology and Evolutionary Biology | Professor of Epidemiology, College of Veterinary Medicine, Oregon State U
- 2005 Leslie, Nandi | Applied and Computational Mathematics | Engineering Fellow, Raytheon Technologies
- 2006 Marissa Baskett | Ecology and Evolutionary Biology | Professor, Dept of Environmental Science and Policy, UC Davis
- 2006 Adi Livnat\* | Ecology and Evolutionary Biology | Associate Professor, Dept of Evolutionary and Environmental Biology and Institute of Evolution, University of Haifa, Israel
- 2007 Georgii Bazykin | Ecology and Evolutionary Biology | Visiting Scientist, Harvard Medical School, Longwood campus
- 2007 Strauss, Ben | Ecology and Evolutionary Biology | President, CEO, and Chief Scientist, Climate Control, Princeton, NJ
- 2007 Sergey Kryazhinskiy | Applied and Computational Mathematics | Associate Professor, University of California, San Diego
- 2007 Juliet Pulliam\* | Ecology and Evolutionary Biology | Branch Chief, Real-Time Monitoring, Center for Forecasting and Outbreak Activities (CFA) at the CDC
- 2007 Jeremy Lichstein\* | Ecology and Evolutionary Biology | Associate Professor, Dept of Biology, University of Florida
- 2008 Duncan Menge\* | Ecology and Evolutionary Biology | Associate Professor, Dept of Ecology, Evolution and Environmental Biology, Columbia University
- 2009 Wilfred Ndifon | Ecology and Evolutionary Biology | Chief Scientific Officer, AIMS Global Network
- 2010 Ryan Chisholm | Ecology and Evolutionary Biology | Associate Professor, Dept of Biological Sciences, National University of Singapore
- 2010 Adrian de Froment | Ecology and Evolutionary Biology | Barrister, Serle Court, London, England
- 2011 Carey Nadell\* | Ecology and Evolutionary Biology | Associate Professor, Dartmouth College
- 2012 Carla Staver\* | Ecology and Evolutionary Biology | Associate Professor, Dept of Ecology & Evolutionary Biology, Yale University
- 2012 Eili Klein | Ecology and Evolutionary Biology | Associate Professor, Center for Advanced Modeling in the Social, Behavioral and Health Sciences, Dept of Emergency Medicine, Johns Hopkins University
- 2012 Allison Shaw\* | Ecology and Evolutionary Biology | Associate Professor, Dept of Ecology, Evolution and Behavior, University of Minnesota
- 2012 Caroline Farrior\* | Ecology and Evolutionary Biology | Assistant Professor, Dept of Integrative Biology, University of Texas, Austin
- 2012 Liliana Salvador\* | University of Lisbon | Assistant Professor, University of Arizona
- 2014 Andrew Berdahl\* | Ecology and Evolutionary Biology | Assistant Professor, University of Washington, Seattle
- 2015 Alex Washburne | Applied and Computational Mathematics | Scientist, Sandia National Labs, NM
- 2015 Eleanor (Brush) Harris | Applied and Computational Mathematics | Managing Director, The Clifton Institute, Warrenton, VA; Research Assistant Professor in Residence, Dept. of Environmental Science, American University; Affiliate Professor, Environment Science and Policy Dept., George Mason University
- 2016 Emma Fuller | Ecology and Evolutionary Biology | Director of Sustainability; Science Lead for Carbon and Ecosystem Services Global Portfolio, Corteva Agriscience
- 2017 Charlotte Chang | Ecology and Evolutionary Biology | Assistant Professor, Dept. of Biology and Environmental Analysis, Pomona College
- 2017 Lisa McManus | Ecology and Evolutionary Biology | Assistant Research Professor, University of Hawaii, Manoa
- 2017 Andrew Tilman | Ecology and Evolutionary Biology | Research Economist, USDA Forest Service, Northern Research Station
- 2018 Simon Leblanc\* | Applied and Computational Mathematics | Software Engineer, Blend, San Francisco, CA
- 2019 Bernat Guillén Pegueroles\* | Applied and Computational Mathematics | Data Scientist, Google, Inc. (Trust & Safety), Zurich, Switzerland; Founding Software Engineer, OPTIML
- 2019 Sarah Drohan | Applied and Computational Mathematics | Epidemiologist/Biostatistician, Public Health Agency of Canada
- 2020 Daniel Cooney | Applied and Computational Mathematics | Assistant Professor, University of Illinois (beginning 09/23)
- 2020 Edward Schrom\* | Ecology & Evolutionary Biology | Data Scientist, CDC Center for Forecasting and Outbreak Analysis (CFA)

|      |  |
|------|--|
| 2020 | Wenyng Liao*   Ecology & Evolutionary Biology   Research Officer, Evidence and Learning Team, Sequoia Climate Foundation       |
| 2020 | Laura Elsler*   Stockholm Resilience Centre   Research Associate, UN, Bali, Indonesia & Duke University                        |
| 2020 | Dylan Morris   Ecology & Evolutionary Biology   Postdoctoral Fellow, U.C.L.A.  |
| 2021 | Samuel Cho   Quantitative and Computational Biology   Researcher, PCL  |
| 2021 | Elise Myers*   Columbia University   Climate Strategy Consultant, Boston Consulting Group, Washington, D.C.                    |
| 2022 | Chadi Saad-Roy*   Quantitative and Computational Biology   Postdoctoral Research Fellow, University of California, Berkeley    |
| 2022 | Mari Kawakatsu*   Applied and Computational Mathematics   Postdoctoral Research Fellow, University of Pennsylvania             |
| 2022 | Luojun Yang*   Ecology & Evolutionary Biology   ABD; Researcher, Gates Foundation  |
| 2022 | Nicolas Choquette-Levy*   STEP   Postdoctoral Research Fellow, Brown University  |
| 2023 | Mayank Sarika   STEP   ABD; Princeton University   |
| 2023 | Georgios Artavanis   Ecology & Evolutionary Biology   ABD; Researcher, Princeton Research Computing, Princeton University      |
| 2024 | Maximilian Nguyen   Quantitative and Computational Biology   Emory U Medical School  |
| 2025 | Ari Freedman   Ecology and Evolutionary Biology   Postdoc at University of Vermont   |
| 2025 | Theo Gibbs*   Quantitative and Computational Biology   Schmidt Science Fellow and Postdoctoral Researcher, New York University |
| 2025 | Anna Jacobson*   Quantitative and Computational Biology  |

## CURRENT PH.D. STUDENTS

| Name                | Department/Program                     |
|---------------------|--|
| Matthew Cheung      | Applied and Computational Mathematics  |
| Jacob Chisausky*    | Ecology and Evolutionary Biology       |
| Shloka V. Janapaty* | Ecology and Evolutionary Biology       |
| Yimei Li*           | Quantitative and Computational Biology |
| Jaiyu Li            | Applied and Computational Mathematics  |
| Victor V. Odouard   | Applied and Computational Mathematics  |
| Marcela Ordorica*   | Mechanical and Aerospace Engineering   |

\*Co-Advisor

## POSTDOCTORAL FELLOWS AND ASSOCIATES

| Cornell University             | Current Position        |   |
|--------------------------------|-------------------------|---|
| 1981-82                        | Kimball, Kenneth        | Director of Research, Appalachian Mountain Club, Gorham, NH   |
| 1981-82                        | McDowell, William       | Professor, Natural Resources and the Environment, U of New Hampshire  |
| 1981-82                        | Grover, Herbert         | Professor, Dept of Biology, Wayland Baptist U   |
| 1981-87                        | Bedford, Barbara        | Senior Research Associate, Dept of Natural Resources, Cornell U   |
| 1981-87                        | Harwell, Mark           | Ecosystems Ecologist and Partner, Harwell Gentile Associates, FL  |
| 1981-87                        | Weinstein, David        | Senior Research Associate, Boyce Thompson Institute, Cornell U  |
| 1981-87                        | Kelly, John             | Branch Chief, Ecosystem Assessment Research, U.S. EPA, Office of Research & Development, National Health & Environmental Research Lab, Mid-Continent Ecology Division, Duluth, MN |
| 1983-84                        | Ford, Jesse             | Retired – Formerly Associate Professor; Senior Researcher, Oregon State U   |
| 1983-84                        | Iwasa, Yoh              | Professor of Theoretical Biology, Kwansei-Gakuin University, Japan  |
| 1983-86                        | Birk, Elaine            | Managing Director, Elaine Birk, Ltd., Auckland, New Zealand   |
| 1983-87                        | Levine, Suzanne         | Retired – Formerly Professor, Rubenstein School of Environment and Natural Resources, U of Vermont  |
| 1985-88                        | Castillo-Chavez, Carlos | Retired, Formerly Regents Professor, School of Human Evolution & Social Change, ASU   |
| 1986-87                        | Andow, David            | Distinguished McKnight University Professor, Entomology, U of Minnesota, St. Paul   |
| 1986-92                        | Moloney, Kirk           | Professor Emeritus, Ecology, Evolution and Organismal Biology, Iowa State U   |
| 1988                           | Morin, Antoine          | Deceased 2018 – Formerly Professor, Dept of Biology, U of Ottawa, Ontario   |
| Cornell & Princeton University |                         |   |
| 1991-93                        | Gueron, Shay            | Professor, Dept of Mathematics, U of Haifa, Israel  |

|                             |                         |  |
|-----------------------------|-------------------------|--|
| 1991-93                     | Wu, Jianguo             | Deans' Distinguished Professor of Sustainability, Arizona State U  |
| 1991-93                     | Lobo, Agustín           | Environmental Scientist, Instituto de Ciencias de la Tierra "Jaume Almera" (CSIC), Barcelona, Spain  |
| 1992-95                     | Saponara, John          | Senior Software Developer, Bloomberg LP, Princeton, NJ   |
| <b>Princeton University</b> |                         |  |
| 1993-95                     | Molofsky, Jane          | Professor, Dept of Botany, U Vermont, Burlington   |
| 1993-96                     | Overton, Jacob          | Researcher, Landcare Research, Hamilton, New Zealand and Panthera, Kafue National Park, Zambia   |
| 1994-95                     | De Leo, Giulio*         | Professor of Biology, Hopkins Marine Station, Stanford U   |
| 1994-98                     | Kinzig, Ann             | Professor, Dept of Biology; Senior Sustainability Scientist, Global Inst of Sustainability, Arizona State University                           |
| 1994-98                     | Bolker, Ben*            | Professor, Depts of Mathematics & Statistics and Biology, McMaster U   |
| 1995-98                     | Hartvigsen, Gregg       | Professor of Quantitative Ecology, Dept of Biology, SUNY, Geneseo  |
| 1995-97                     | Pascual, Mercedes       | Professor, Dept of Ecology & Evolution, University of Chicago  |
| 1996                        | Gandhi, Amar            | Group Project Manager, Google, Inc.  |
| 1996-97                     | Deutschman, Douglas     | Associate Vice President and Dean, Wilfred Laurier U, Waterloo, Ontario  |
| 1999                        | Earn, David             | Professor, Dept of Mathematics and Statistics, McMaster University   |
| 2000                        | Casagrandi, Renato      | Associate Professor, Dept di Elettronica e Informazione, Politecnico di Milano, Italy  |
| 2000                        | Liu, Canran             | Senior Scientist, Arthur Rylah Institute for Environmental Research, Dept of Environment, Land, Water, and Planning, Victoria, Australia       |
| 1999-00                     | Norberg, Jon            | Professor; Research Fellow, Complex Adaptive Systems, Stockholm Resilience Centre, Sweden  |
| 1999-01                     | Nathan, Ran             | Professor, Head of Dept Evolution, Systematics and Ecology; Chairman, Alexander Silberman Inst of Life Sciences, Hebrew U of Jerusalem, Israel |
| 1999-01                     | Chave, Jérôme           | Director of Research, CNRS, Toulouse, France   |
| 1999-01                     | Wiegand, Kerstin        | Professor, Ecosystems Modelling, U of Goettingen, Germany  |
| 1999-02                     | Guichard, Frédéric      | Professor of Biology, McGill U, Montreal, Canada   |
| 2000-07                     | Dushoff, Jonathan       | Professor, Dept of Biology; Faculty of Science Research Chair, McMaster U, Canada  |
| 2000-04                     | Rozdilsky, Ian          | Foreign Service Officer (Diplomat), State Department, Washington, DC   |
| 2001-02                     | Klausmeier, Christopher | MSU Foundation Professor of Plant Biology, W.K. Kellogg Biological Station, Michigan State University  |
| 2001-03                     | Loladze, Iralki         | Associate Professor, Byran College of Health Sciences, Lincoln, Nebraska   |
| 2001 & 2004                 | Muller-Landau, Helene   | Staff Scientist, Smithsonian Tropical Research Institute, Panama   |
| 2001-02                     | Palsson, Eirikur*       | Associate Professor, Dept of Biology, Simon Fraser U, Burnaby, BC  |
| 2001-03                     | Webb, Colleen           | Associate Dean, Graduate School; Professor, Dept of Biology, Colorado State U, Fort Collins  |
| 2003-04                     | De Leenheer, Patrick*   | Professor, Dept of Mathematics, Oregon State University  |
| 2003-04                     | Scanlon, Todd           | Associate Professor, Dept of Environmental Sciences, U of Virginia   |
| 2004-05                     | Berger-Wolf, Tanya*     | Faculty Director, Translational Data Analytics Inst; Professor, Ohio State U   |
| 2005                        | Rauch, Erik             | Deceased July 2005   |
| 2001-06                     | Pratt, Stephen*         | Professor, School of Life Sciences, ASU  |
| 2002-05                     | Couzin, Iain*           | Director, Dept of Collective Behavior, Max Planck Inst for Ornithology, Konstanz, Germany  |
| 2003-06                     | Girvan, Michelle*       | Professor, Dept of Physics, University of Maryland   |
| 2003-06                     | Ogle, Kiona*            | Professor, Informatics & Computing Program, Northern Arizona U   |
| 2004-06                     | Annette Ostling         | Associate Professor, Ecology & Evolutionary Biology, U of Michigan, Ann Arbor  |
| 2004-06                     | Nikolay Strigul         | Associate Professor; Mathematics Program Leader, Washington State U, WA  |
| 2005-06                     | Jinhu Liu               | Professor, Chinese Academy of Sciences   |
| 2003-06                     | Weitz, Joshua           | Professor of Biology, Georgia Inst of Technology   |
| 2005-07                     | Satake, Akiko           | Associate Professor, Hokkaido University, Japan  |
| 2006-07                     | Gross Thilo*            | Professor, Computer Science, University of CA, Davis   |
| 2004-07                     | Leslie, Heather         | Director, Darling Marine Center, U of Maine; Associate Professor, School of Marine Sciences, U of Maine, Orono                                 |
| 2006-07                     | Varkonyi, Peter         | Associate Professor, Dept of Mechanics, Materials, and Structures, Budapest U of Technology & Economics, Hungary                               |

|         |                       |   |
|---------|-----------------------|---|
| 2006-07 | Flaxman, Sam          | Associate Professor, Dept of Ecology & Evolutionary Biology, U of Colorado, Boulder   |
| 2006-07 | Menden-Deuer, Susanne | Professor, Oceanography, U of Rhode Island  |
| 2006-07 | Charles Stock*        | Research Oceanographer, NOAA/Geophysical Fluid Dynamics Laboratory, Princeton, NJ   |
| 2007-08 | Boni, Maciej          | Associate Professor, Center for Infectious Disease Dynamics, Dept of Biology, Penn State University   |
| 2006-08 | Ballantyne, Ford      | Associate Professor, Odum School of Ecology, University of Georgia  |
| 2007-08 | Giuggioli, Luca       | Associate Professor, Dept of Engineering Mathematics and School of Biological Sciences, U of Bristol, UK; Senior Lecturer in Complexity Sciences, Bristol Centre of Complexity Sciences, UK |
| 2006-08 | Bartumeus, Frederic   | Head of Continental Ecology Dept, Centre D'Estudis Avançats de Blanes (CEAB), Spain Research Professor, Catalan Inst for Research and Advanced Studies (ICREA), Spain                       |
| 2006-09 | Schlüter, Maja        | Associate Professor, Stockholm Resilience Centre, Stockholm U, Sweden   |
| 2005-10 | Michael Raghib        | Principle Engineer, Idoba-Perenti, Perth, Western Australia   |
| 2009-11 | Fortuna, Miguel       | Research Scientist, Spanish National Research Council (CSIC): Ronin Institute   |
| 2010-11 | Guy Ziv               | Professor, Socio-Environmental Systems, School of Geography, U of Leeds, UK   |
| 2010-11 | Charles Yackulic*     | Research Statistician, Grand Canyon Monitoring & Research Center, U.S. Geological Survey, Flagstaff, Arizona  |
| 2011-12 | Emmanuel Schertzer    | University Professor; Chair, Dynamical Systems in Biomathematics, U of Vienna, Austria  |
| 2012-13 | Anne Maria Eikeset    | Researcher, Norges Bank Investment Management, Norway   |
| 2010-13 | Ricky Der             | Investment, runs a quantitative fund (machine learning based), NY, NY   |
| 2011-13 | Malin Pinsky          | Associate Professor, U of California, Santa Cruz  |
| 2011-13 | Erol Akçay            | Associate Professor, Dept of Biology, University of Pennsylvania  |
| 2011-13 | James Watson          | Associate Professor, Oregon State University  |
| 2012-13 | Colin Torney*         | Professor, U of Glasgow, School of Mathematics & Statistics, Mathematical Ecology, Scotland   |
| 2012-13 | Anne Maria Eikeset    | Lead Researcher, Norges Bank Investment Management  |
| 2009-14 | Juan Bonachela        | Associate Professor, Ecology, Evolution & Natural Resources, Rutgers U.   |
| 2012-14 | James Waters          | Associate Professor, Dept of Biology, Providence College, RI  |
| 2013-15 | Thomas Van Boeckel*   | Assistant Professor, ETH, Zürich, Switzerland   |
| 2012-14 | Efrat Sheffer*        | Associate Professor, Hebrew U University, Jerusalem, Israel   |
| 2013-15 | Neil Carter           | Associate Professor, U University of Michigan   |
| 2014-15 | Pawel Romanczuk*      | Professor, Humboldt U, Berlin, Germany  |
| 2014-16 | Emily Klein           | Officer, Aquatic Sciences Officer, Pew Charitable Trusts  |
| 2014-16 | Frants Jensen*        | Research Assistant Professor, Syracuse University   |
| 2012-16 | Ben Morin*            | Assistant Professor, Mathematics & Statistics Dept., Vassar University  |
| 2014-16 | Matthieu Barbier      | Researcher, Plant Health Institute, Montpellier, France   |
| 2013-16 | Andrew Hein*          | Assistant Professor, Cornell University   |
| 2014-16 | Dane Klinger          | Director of Biology, Forever Oceans Corporation   |
| 2014-17 | George Hagstrom       | Doctoral Lecturer, CUNY   |
| 2015-17 | Karla Kvaternik*      | Engineer, GE Global Research, Schenectady, NY   |
| 2016-17 | Flavia Marquitti      | Postdoctoral Research Associate, Universidade Estadual de Campinas (Unicamp), São Paulo, Brazil   |
| 2016-17 | Juan Rocha Gordo      | Researcher, Stockholm Resilience Centre, Sweden   |
| 2015-17 | Anieke Van Leeuwen    | Senior Scientist, Netherlands Institute for Sea Research  |
| 2016-19 | Talia Young           | Visiting Assistant Professor, Haverford College; Founder and Director, Fishadelphia, Philadelphia, PA   |
| 2016-19 | Liliana Salvador      | Assistant Professor, University of Arizona  |
| 2017-19 | Theresa Ong           | Assistant Professor, Dartmouth University   |
| 2017-19 | Jude Kong*            | Assistant Professor, York University, Toronto, Canada   |
| 2016-20 | Chai Molina           | Chief Computational Officer, BioCraft, Vienna   |
| 2016-20 | Eden Tekwa*           | Research Associate, McGill University   |
| 2017-21 | Vitor Vasconcelos     | Assistant Professor, University of Amsterdam  |

|         |                    |  |
|---------|--------------------|--|
| 2019-21 | Andrew Carlson*    | Assistant Professor University of Florida, Gainesville           |
| 2018-21 | Fernando Santos    | Assistant Professor, University of Amsterdam                     |
| 2019-21 | Arnald Puy         | Associate Professor, University of Birmingham, UK                |
| 2019-21 | Elisabeth Krueger  | Assistant Professor, University of Amsterdam                     |
| 2020-23 | Benjamin Schaffer  | Self-employed  |
| 2020-23 | Denis Patterson    | Assistant Professor, University of Durham, UK                    |
| 2021-24 | Woi Sok Oh*        | Postdoctoral Research Associate, Ohio State University           |
| 2021-24 | Victoria Junquera* | Postdoctoral Research Associate, University of Bern, Switzerland |

**Current**

|       |                    |                                 |
|-------|--------------------|---------------------------------|
| 2022- | Anne Stephenson    | Postdoctoral Research Associate |
| 2022- | Guillaume Falmagne | Postdoctoral Research Associate |
| 2022- | Giuseppe Ferro     | Postdoctoral Research Fellow    |
| 2023- | Emma Zajdela*      | Postdoctoral Research Associate |
| 2023- | Talia Borofsky*    | Postdoctoral Research Associate |
| 2023- | Nusrat Molla*      | Postdoctoral Research Associate |
| 2024- | Emerson Arehart*   | Postdoctoral Research Associate |
| 2024- | Abigail Croker     | Postdoctoral Research Associate |
| 2024- | Harman Jaggi*      | Postdoctoral Research Associate |
| 2024- | Xander Huggins*    | Postdoctoral Research Associate |
| 2024- | Aanjaneya Kumar*   | Postdoctoral Research Associate |
| 2025- | Adam Wiechman      | Postdoctoral Research Associate |

\* Co-advisor

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- V. Junquera, JL Hormaza, DL Rubenstein, **SA Levin**, I Vellido Perez, P Jimenez Gavilan. Severe water crisis in southern Spain under expanding irrigated agriculture: A multidimensional drought analysis - *PNAS* 2025 Vol. 122 No.39 e2508055122, <https://www.pnas.org/doi/10.1073/pnas.2508055122>
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Kathleen Segerson, Stephen Polasky, Marten Scheffer, U. Rashid Sumaila, Juan Camilo Cárdenas, Karine Nyborg, Eli P. Fenichel, John M. Anderies, Scott Barrett, Elena M. Bennett, Stephen R. Carpenter, Beatrice Crona, Gretchen Daily, Aart de Zeeuw, Joern Fischer, Carl Folke, Nils Kautsky, Claire Kremen, **Simon A. Levin**, Therese Lindahl, Malin L. Pinsky, Alessandro Tavoni, Brian Walker, Elke U. Weber. A cautious

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