

RESEARCH I develop novel mathematical and computational methods for modelling the effects of anthropogenic change on species interactions and ecosystem services

EDUCATION **DPhil Doctorate in Condensed Matter Physics** University of Oxford
2007–2010 Department of Physics and Wolfson College
Thesis title: Structure, dynamics, and robustness of ecological networks
Examiners: Sir Professor Charles Godfray and Professor Roger Guimerà
Supervisors: Professor Felix Reed-Tsochas, Dr Nick S. Jones, Professor Neil F. Johnson
All conditions satisfied in 2011, degree awarded in 2013

2003–2007 **MPhys Undergraduate Master of Physics** University of Oxford
First Class Honours, St. Anne’s College

POSITIONS **Assistant Professor** Department of Biology City University of New York (CUNY)
2019–PRESENT Brooklyn College and The Graduate Center, PhD Subprogram in Ecology, Evolutionary Biology, and Behavior (EEB); Affiliated Faculty at the Science and Resilience Institute at Jamaica Bay (since 2022)

2016–2018 **Research Fellow** Social-Ecological Networks University of Maryland, College Park
National Socio-Environmental Synthesis Center, with Professor Margaret Palmer

2016 **Postdoctoral Researcher** Microbial invasion University of Maryland, College Park
Department of Biology, with Professor Bill Fagan

2013–2015 **Research Fellow** Environmental Risk University College London
Centre for Biodiversity and Environment Research, with Dame Professor Georgina Mace

2013 **Consultant Scientist** Urban Pollinators Project University of Bristol
School of Biological Sciences, with Professor Jane Memmott

2011–2013 **Postdoctoral Researcher** Ecological Networks University of Chicago
Department of Ecology & Evolution, with Professor Stefano Allesina

PUBLICATIONS 24. Anderson, C.R., Curtsdotter, A.R.K., **Staniczenko, P.P.A.**, Valdovinos, F.S. & Brosi, B.J. (2024). The interplay of binary and quantitative structure on the stability of mutualistic networks. [Integrative and Comparative Biology](#), 64, 827–840

MENTORED
STUDENTS
‡LAB MEMBER 2023 23. **Staniczenko, P.P.A.** & Panja, D. (2023). Temporal origin of nestedness in interaction networks. [PNAS Nexus](#), 2, pgad412

22. French, C.M., Bertola, L.D., Carnaval, A.C., Economo, E.P., Kass, J.M., Lohman, D.J., Marske, K.A., Meier, R., Overcast, I., Rominger, A.J., **Staniczenko, P.P.A.** & Hickerson, M.J. (2023). Global determinants of insect mitochondrial genetic diversity. [Nature Communications](#), 14, 5276

21. Graham, N.R., Krehenwinkel, H., Lim, J.Y., **Staniczenko, P.P.A.**, Callaghan, J., Andersen, J.C., Gruner, D.S. & Gillespie, R.G. (2023). Ecological network structure in response to community assembly processes over evolutionary time. [Molecular Ecology](#), 32, 6489–6506

20. Lue‡, C.-H., Abram, P.K., Hrcek, J., Buffington, M.L. & **Staniczenko, P.P.A.** (2023). Metabarcoding and applied ecology with hyper-diverse organisms: recommendations for biological control research. [Molecular Ecology](#), 32, 6461–6473

- 2022 19. Fagan, W.F., Swain, A., Banerjee, A., Ranade, H., Thompson, P.R., **Staniczenko, P.P.A.**, Barrett, F., Hungerford, J. & Hurwitz, S. (2022). Quantifying interdependencies in geyser eruptions at the Upper Geyser Basin, Yellowstone National Park. [Journal of Geophysical Research: Solid Earth](#), 127, e2021JB023749
18. Zambrano, J., Arellano, G., Swenson, N.G., **Staniczenko, P.P.A.**, Thompson, J., & Fagan, W.F. (2022). Analyses of three-dimensional species associations reveal departures from neutrality in a tropical forest. [Ecology](#), 103, e3681
- 2021 17. Lue[‡], C.-H., Buffington, M.L., Scheffer, S., Lewis, M., Elliott, T.A., Lindsey, A.I.R., Driskell, A., Jandova, A., Kimura, M.T., Carton, Y., Kula, R.R., Schlenke, T.A., Mateos, M., Govind, S., Varaldi, J., Guerrieri, E., Giorgini, M., Wang, X., Hoelmer, K., Daane, K.M., Abram, P.K., Pardikes, N.A., Brown, J.J., Thierry, M., Poirié, M., Goldstein, P., Miller, S.E., Tracey, W.D., Davis, J.S., Jiggins, F.M., Wertheim, B., Lewis, O.T., Leips, J., **Staniczenko, P.P.A.** & Hrcek, J. (2021). DROP: Molecular voucher database for identification of *Drosophila* parasitoids. [Molecular Ecology Resources](#), 21, 2437–2454
16. Guy*, T.J., Hutchinson*, M.C., Baldock, K.C.R., Kayser, E., Baiser, B., **Staniczenko, P.P.A.**, Goheen, J.R., Pringle, R.M. & Palmer, T.M. (2021). *Joint first authors. Large herbivores transform plant-pollinator networks in an African savanna. [Current Biology](#), 31, 2964–2971
15. Losapio, G., Schöb, C., **Staniczenko, P.P.A.**, Carrara, F., Palamara, G.M., De Moraes, C.M., Mescher, M.C., Brooker, R.W., Butterfield, B.J., Callaway, R.M., Cavieres, L.A., Kikvidze, Z., Lortie, C.J., Michalet, R., Pugnaire, F.I. & Bascompte, J. (2021). Network motifs involving both competition and facilitation predict biodiversity in alpine plant communities. [Proceedings of the National Academy of Sciences USA](#), 118, e2005759118
- 2020 14. Timm, C.M., Loomis, K., Stone, W., Mehoke, T., Brensinger, B., Pellicore, M., **Staniczenko, P.P.A.**, Charles, C., Nayak, S. & Karig, D. (2020). Isolation and characterization of diverse microbial representatives from the human skin microbiome. [Microbiome](#), 8, 58
13. Thompson, P.R., Fagan, W.F. & **Staniczenko, P.P.A.** (2020). Predictor species: Improving assessments of rare species occurrence by modeling environmental co-responses. [Ecology & Evolution](#), 10, 3293–3304
12. Alexander*, S.M., **Staniczenko***, P.P.A. & Bodin, Ö. (2020). *Joint first authors. Social ties explain catch portfolios of small-scale fishers in the Caribbean. [Fish & Fisheries](#), 21, 120–131
- 2019 11. Baldock, K.C.R., Goddard, M.A., Hicks, D.M., Kunin, W.E., Mitschunas, N., Morse, H., Osgathorpe, L.M., Potts, S.G., Robertson, K.M., Scott, A.V., **Staniczenko, P.P.A.**, Stone, G.N., Vaughan, I.P. & Memmott, J. (2019). A systems approach reveals urban pollinator hotspots and conservation opportunities. [Nature Ecology & Evolution](#), 3, 363–373
- 2018 10. **Staniczenko, P.P.A.**, Suttle, K.B. & Pearson, R.G. (2018). Negative biotic interactions drive predictions of distributions for species from a grassland community. [Biology Letters](#), 14, 20180426
- 2017 9. **Staniczenko, P.P.A.**, Lewis, O.T., Tylianakis, J.M., Albrecht, M., Coudrain, V., Klein, A.-M. & Reed-Tsochas, F. Predicting the effect of habitat modification on networks of interacting species. (2017). [Nature Communications](#), 8, 792
8. **Staniczenko, P.P.A.**, Sivasubramaniam, P., Suttle, K.B. & Pearson, R.G. (2017). Linking macroecology and community ecology: Refining predictions of species distributions using biotic interaction networks. [Ecology Letters](#), 20, 693–707

| | | |
|---------------|---|-------------|
| 2017 | 7. Bewick*, S., Staniczenko*, P.P.A. , Li, B., Karig, D. & Fagan, W.F. (2017). *Joint first authors. Invasion speeds in microbial systems with toxin production and quorum sensing. Journal of Theoretical Biology , 420, 290–303 | |
| 2016 | 6. Caravelli ^{‡,*} , F. & Staniczenko*, P.P.A. (2016). *Joint first authors. Bounds on transient instability for complex ecosystems. PLOS ONE , 11, e0157876 | |
| 2014 | 5. Staniczenko, P.P.A. , Smith, M.J. & Allesina, S. (2014). Selecting food web models using normalized maximum likelihood. Methods in Ecology & Evolution , 5, 551–562 | |
| 2013 | 4. Staniczenko, P.P.A. , Kopp, J.C. & Allesina, S. (2013). The ghost of nestedness in ecological networks. Nature Communications , 4, 1931 | |
| 2012 | 3. De Sassi, C., Staniczenko, P.P.A. & Tylianakis, J.M. (2012). Warming and nitrogen affect size structuring and density dependence in a host-parasitoid food web. Philosophical Transactions of the Royal Society B , 367, 3033–3041 | |
| 2010 | 2. Staniczenko, P.P.A. , Lewis, O.T., Jones, N.S. & Reed-Tsochas, F. (2010). Structural dynamics and robustness of food webs. Ecology Letters , 13, 891–899 | |
| 2009 | 1. Staniczenko, P.P.A. , Lee, C.-F. & Jones, N.S. (2009). Rapidly detecting disorder in rhythmic biological signals: A spectral entropy measure to identify cardiac arrhythmias. Physical Review E , 79:011915 | |
| GRANTS | Hudson River Park CUNY Visiting Scholars Award | PI, \$10k |
| 2024 | Wave exposure at Gansevoort Peninsula and implications for the restoration success of the eastern oyster (<i>Crassostrea virginica</i>) | |
| | PSC-CUNY Research Award Cycle 55 | PI, \$6k |
| | Measuring the effects of wind-driven waves on wetland erosion and the implications for smooth cordgrass (<i>Spartina alterniflora</i>) restoration in Jamaica Bay, NYC | |
| | Tow Research and Creativity Grant | PI, \$2,600 |
| | Phenology and the local stability of plant-pollinator interaction networks | |
| 2018 | Santa Fe Institute Working Group | PI, \$20k |
| | Next-generation ecological network theory and application | |
| 2016–2018 | National Socio-Environmental Synthesis Center Fellowship | PI, \$215k |
| | Predicting the effect of socioeconomic and environmental change on the structure of biotic interactions and the provision of ecosystem services (International Competition) | |
| 2014–2015 | British Ecological Society Large Grant | PI, £20k |
| | How do food webs respond to bottom-up changes driven by habitat modification? | |
| 2013–2015 | AXA Postdoctoral Fellowship | PI, €120k |
| | How accurately can we predict species extinction and reintroduction? Embracing ecological complexity to assess risk in ecosystems (International Competition) | |
| 2007–2010 | Doctoral Fellowship Awarded by the Helsinki University of Technology | PI, \$80k |
| | Computational Complex Systems and Networks Research (International Competition) | |
| AWARDS | Tow Mentoring award for undergraduate mentorship at Brooklyn College | |
| 2023 | Excellence in Scholarly and Creative Achievement at Brooklyn College | |
| 2022 | Tow Mentoring award for undergraduate mentorship at Brooklyn College | |
| | CUNY STEM Pedagogy Institute Fellowship award to develop innovative approaches to teaching computational methods, \$5k | |
| 2021 | Roberta S. Matthews Center for Teaching and Learning Course Development Fellowship award to develop more inclusive undergraduate courses, \$2k | |
| | Faculty Fellowship Publication Program (FFPP) award, \$4k | |
| | Certificate in Effective Online Teaching Practices from the Association of College and University Educators (ACUE) | |

| | | |
|--------------------|---|------------------------------------|
| 2014 | Top Referee in 2014 Proceedings of the Royal Society B | |
| 2010 | David Ryan Prize for distinguished work by a graduate student in Physics | |
| 2007 | Data Connection Prize for the best use of software in an MPhys Thesis | |
| 2006 | Clayman Scholarship to work in quantitative finance in NYC, \$10k | |
| SUPERVISION | PhD committee Sulaimon Lawal | Queens College, CUNY |
| 2024-PRESENT | Ecology, Evolutionary Biology, and Behavior | |
| 2023-PRESENT | PhD supervisor James Herlan | City College, CUNY |
| | Ecology, Evolutionary Biology, and Behavior | |
| | Undergraduate project mentor Alex Colasanti | Brooklyn College, CUNY |
| | Staniczenko lab | |
| | PhD committee Rhema Uche-Dike | American Museum of Natural History |
| | Richard Gilder Graduate School | |
| 2022 | Undergraduate project mentor Torie Robinson | Brooklyn College, CUNY |
| | Staniczenko lab | |
| 2021 | Undergraduate project mentor Mitchell Borshch | Brooklyn College, CUNY |
| | Brooklyn College Cancer Center | |
| 2021-2024 | PhD committee Andrielle Silva | Brooklyn College, CUNY |
| | Biochemistry | |
| 2020-PRESENT | PhD committee Laura Boggess | New York Botanical Garden |
| | Plant Sciences | |
| | PhD committee Connor French | City College, CUNY |
| | Ecology, Evolutionary Biology, and Behavior | |
| | PhD co-supervisor Grégoire Proudham | Czech Academy of Sciences |
| | Department of Entomology | |
| 2020-2023 | PhD committee Erica Johnson | City College, CUNY |
| | Ecology, Evolutionary Biology, and Behavior | |
| | PhD committee Aislyn Keyes | University of Boulder Colorado |
| | Ecology and Evolutionary Biology | |
| 2020-2022 | Postdoctoral research mentor Chia-Hua Lue | Brooklyn College, CUNY |
| | Staniczenko lab | |
| 2020 | Undergraduate project mentor Chrismal Abraham | Brooklyn College, CUNY |
| | Department of Computer and Information Sciences | |
| 2019-2022 | PhD committee Jennifer Zhu | Baruch College, CUNY |
| | Ecology, Evolutionary Biology, and Behavior | |
| 2019 | NSF Summer REU mentor Quiana Berry | Brooklyn College, CUNY |
| | Brooklyn Urban Ecology and Environment (BUEE) Program | |
| 2019-2023 | PhD committee Gonzalo Enrique Pinilla Buitrago | City College, CUNY |
| | Ecology, Evolutionary Biology, and Behavior | |
| 2018-2022 | PhD committee Humberto Castillo Gonzalez | University of Maryland, CP |
| | Department of Plant Sciences and Landscape Architecture | |
| 2018 | Undergraduate project mentor Peter Thompson | University of Maryland, CP |
| | Department of Statistics | |
| 2017 | Undergraduate project mentor Samantha Berman | University of Maryland, CP |
| | Department of Biology | |
| 2015 | Undergraduate research intern Elise Damstra | University College London |
| | Staniczenko lab | |

| | | |
|-------------------------|--|--|
| 2015 | PhD project mentor Teresa Attenborough Interdisciplinary Life Sciences | University College London |
| 2014–2015 | PhD project mentor Andrew Maher Interdisciplinary Life Sciences | University College London |
| 2014 | Postdoctoral research mentor Francesco Caravelli Staniczenko lab | University College London |
| 2013–2014 | Master’s project mentor Sameen Khan Department of Mathematics | University College London |
| TEACHING | Organizer BIOL7910G: Biology Colloquium | Brooklyn College, CUNY |
| 2020–PRESENT | Arrange seminar series and mark student summaries of talks | 14 weeks |
| | Lecturer BIOL3030W: Scientific Writing Communicating science to decision-makers and the public (originated course) | Brooklyn College, CUNY 14 weeks |
| | Lecturer BIOL3083: Principles of Ecology Fundamental Topics in Ecology (originated course) | Brooklyn College, CUNY 14 weeks |
| 2019–PRESENT | Lecturer BIOL76001: Ecology Fundamental and Contemporary Topics in Ecology (originated course) | Graduate Center, CUNY 14 weeks |
| | Lecturer BICM87001: Bioinformatics with practicum Scientific Computing for Biologists (4 weeks, originated course) | Graduate Center, CUNY 14 weeks |
| 2019–2020 | Lecturer NSF Advanced Training Course Introduction to Social and Ecological Networks Analysis | SESYNC 5 full days |
| 2019 | Lecturer NSF Summer REU Statistics and Scientific Computing (originated course) | Brooklyn College, CUNY 2 half days |
| 2014 | Lecturer NERC Advanced Training Short Course Introduction to Ecological Modelling, Graduate level | University College London 2 full days |
| | Lecturer Workshop on Networks in Ecology Beyond nestedness in ecological networks, Undergraduate level | Umeå University, Sweden 2 full days |
| 2008–2010 | Lecturer MSc Integrative Biosciences Quantitative Methods in Biology, Graduate level | University of Oxford 2 full days |
| 2008–2009 | Demonstrator MPhys Physics Introduction to C programming, Undergraduate level | University of Oxford 4 weeks |
| ACADEMIC SERVICE | Subject-Matter Editor Editorial Board, Ecological Monographs | |
| 2023 | Reviewer for Ecological Society of America Annual Meeting Session Proposals | |
| | Chair (Elected) Theoretical Ecology Section, Ecological Society of America | |
| 2022–PRESENT | Vice-chair (Elected) Theoretical Ecology Section, Ecological Society of America | |
| 2021 | Guest Associate Editor PLOS Computational Biology | |
| 2020–PRESENT | Panelist for NSF (USA) Grant proposal review, Division of Environmental Biology | |
| 2018–PRESENT | Recommender/Journal Editor Peer Community in Ecology | |
| 2018 | Executive Board Inclusive Ecology Section, Ecological Society of America | |
| 2014–PRESENT | Reviewer for NSERC (Canada) Strategic Projects Program | |
| | Reviewer for NSF (USA) Standard Grant and CAREER Grant | |
| | Reviewer for NERC (UK) Standard Grant and New Investigator Scheme | |
| 2010–PRESENT | Reviewer for over 100 manuscripts across 45 peer-reviewed journals Nature Communications, Nature Ecology & Evolution, Nature Scientific Reports, Science Advances, PLOS Biology, PLOS Computational Biology, PLOS ONE, Proceedings of the Royal Society A, Proceedings of the Royal Society B, Biology Letters, Ecology Letters, Ecology, Ecology & Evolution, Frontiers in Ecology and Evolution, Frontiers | |

in Plant Science, Methods in Ecology & Evolution, Theoretical Ecology, Ecological Modelling, Basic & Applied Ecology, Journal of Applied Ecology, Journal of Animal Ecology, Journal of Natural History, Molecular Ecology, Landscape & Urban Planning, Oikos, Global Change Biology, Ecography, Journal of Biogeography, Global Ecology & Biogeography, Diversity & Distributions, Biological Conservation, Current Biology, Journal of Theoretical Biology, Theory in Biosciences, Diversity, Complexity, PeerJ, Microbiome, Computer Methods and Programs in Biomedicine, Physical Review Letters, Physical Review Research, Physical Review E, Physical Review X, PRX Life, Journal of the Royal Society Interface

| | | |
|---|--|----------------------------|
| INSTITUTIONAL SERVICE | Biology Program Nominations Committee | Graduate Center, CUNY |
| | EEB Steering Committee | Graduate Center, CUNY |
| | 2019–2023 Chair, Committee on Review of Student Records | Brooklyn College, CUNY |
| | University Faculty Council | Brooklyn College, CUNY |
| | 2019–2020 University Faculty Senate | CUNY |
| | 2019 NSF Summer REU Selection Committee | Brooklyn College, CUNY |
| | 2018–2022 Special Member of the Graduate Faculty | University of Maryland, CP |
| | Department of Plant Science and Landscape Architecture | |
| | 2017–2019 Equity, Diversity & Inclusion Committee | University of Maryland, CP |
| | Representative for faculty (Elected) | |
| | Mentoring Sub-Committee Chair | University of Maryland, CP |
| | Designed a new Individual Development Plan for postdoctoral researchers | |
| | University Senate | University of Maryland, CP |
| | Representative for postdoctoral researchers (Elected twice) | |
| 2004–2005 | Physics Joint Consultative Committee | University of Oxford |
| | Undergraduate representative (Elected) | |
| OUTREACH | Educational Video National Socio-Environmental Synthesis Center | Winter 2020 |
| | Writer, producer, and presenter of “Introduction to Ecological Networks” | |
| | Panelist Postdoctoral Research Symposium, MD | 13 Sept 2019 |
| | Session on Transitioning to a Faculty Position | |
| | Panel Moderator Postdoctoral Research Symposium, MD | 17 Sept 2018 |
| | Session on Transitioning to a Faculty Position | |
| | Planning Committee Graduate Career Pathways Conference, MD | 20 April 2018 |
| | Organised session on environmental policy, NGOs, and conservation | |
| Judge Graduate Research Appreciation Day, University of Maryland | 4 April 2018 | |
| Judge Graduate Research Appreciation Day, University of Maryland | 5 April 2017 | |
| Exhibition Curator Transforming Space, Denys Wilkinson Building | 7–9 May 2009 | |
| Workshop Organiser Process in Physics and Art, Oxford | 12 Feb 2009 | |
| Highschool Mentor Maths, ages 10–12, Cherwell School, Oxford | 2008 | |
| TALKS | 36. *Ecological networks—Mapping the tangled bank. MasterClass, three two-hour lectures and two two-hour computing practicals, 5–7 June 2023, Centre for Complex Systems Studies, Utrecht University, Netherlands. | |
| | 35. *Integrating Empirical and Theoretical Approaches in Mutualistic Networks. Session moderator. Ecological Society of American Annual Meeting, 18 Aug 2022, Montreal, Canada | |
| *INVITED | | |
| 2023 | | |
| 2022 | | |

- 2022 34. *Predictive community ecology: putting networks to work. Departmental Seminar, 23 March 2022, Department of Biology, Queens College, City University of New York, NY
- 2021 33. *Decolonizing a traditional lecture-based course in ecology—my in-progress attempt. Seminar, 7 Oct 2021, Center for Teaching and Learning, Brooklyn College, City University of New York, NY
- 2020 32. *Predictive community ecology: putting networks to work. Departmental Seminar, 5 Feb 2020, Department of Ecology & Evolution, Stony Brook University, NY
- 2019 31. Reckless Ideas in Ecological Networks. Symposium Organiser and Speaker, 9–10 May 2019, The Center for the Study of Complex Systems, University of Michigan, MI
30. *Predictive community ecology: putting networks to work. Departmental Seminar, 11 March 2019, Department of Biology, City College, City University of New York, NY
29. *Predictive community ecology: putting networks to work. Session on Ecology, Evolutionary Biology, and Behavior, 14 Feb 2019, American Museum of Natural History, NY
- 2018 28. Modelling interaction frequencies and preferences in *Drosophila*-parasitoid communities using networks. Entomological Society of America Annual Meeting, 14 Nov 2018, Vancouver, Canada
27. Predicting the effect of habitat modification on networks of interacting species. Ecological Society of America Annual Meeting, 8 Aug 2018, New Orleans, LA
26. *Predicting shifts in insect feeding interactions following deforestation. Departmental Seminar, 2 March 2018, Department of Entomology, University of Maryland, College Park, MD
- 2017 25. Multilayer conjugation networks. Presentation to United States Department of Defence, 21 Nov 2017, The Johns Hopkins Applied Physics Laboratory, Laurel, MD
24. *Predictive community ecology: putting networks to work. Departmental Seminar, 9 Nov 2017, Center for Conservation Biology, Stanford University, CA
23. *Networks and ecology. Departmental Seminar, 1 Sept 2017, Computation and Mathematics for Biological Networks Program, University of Maryland, College Park, MD
22. *Refining predictions of species distributions using biotic interaction networks. Workshop, Novel Methods for Modelling Complex Dynamic Ecological Systems, 21 Aug 2017, Centre for Biodiversity and Conservation Science, University of Queensland, Australia
21. *Revealing the Causes and Consequences of Interaction Complexity using Gradient-Based Ecological Networks. Session moderator. Ecological Society of America Annual Meeting, 10 Aug 2017, Portland, OR
20. Refining predictions of species distributions using biotic interaction networks. Ecological Society of America Annual Meeting, 7 Aug 2017, Portland, OR
- 2016 19. *Predicting weighted ecological networks in human-modified habitats. Departmental Seminar, 11 Nov 2016, Department of Biological Sciences, University of Maryland Baltimore County, MD
18. Invasion speeds in microbial systems. Presentation to United States Department of Defence, 1 Nov 2016, The Johns Hopkins Applied Physics Laboratory, Laurel, MD
- 2015 17. *How will social and environmental change impact ecological communities and ecosystem services? Departmental Seminar, 18 Nov 2015, National Socio-Environmental Synthesis Center, Annapolis, MD
16. *Predicting weighted ecological networks in human-modified habitats. Departmental Seminar, 20 Oct 2015, CABDyN Complexity Centre, Saïd Business School, University of Oxford, UK

- 2015 15. Bounds on transient instability for complex ecosystems. Data Natives Meeting 2015, 15 May 2015, City University London, UK
14. *Predicting weighted ecological networks in modified environments. Departmental Seminar, 27 March 2015, London Institute of Mathematical Sciences, UK
13. *Reallocation of trophic interactions and the predictability of parasitoid-host food web structure in modified habitats. Departmental Seminar, 5 March 2015, School of Biological Sciences, University of Canterbury, Christchurch, New Zealand
- 2014 12. *Food webs and bipartite networks. Workshop on Grand Challenges in Ecosystems and the Environment: Networks in Ecology and Evolution, 14 July 2014, Silwood Park, Imperial College London, UK
11. *Ecosystem services and the limits of our predictive capability. AXA Pop Day, 21 June 2014, AXA Headquarters, Paris, France
10. *Beyond nestedness: Using directed acyclic graphs to model bipartite matrices and networks. Workshop on Networks in Ecology, 20 May 2014, Umeå University, Sweden
9. Robustness of plant-pollinator communities in four UK cities. Meeting on Urban Pollination, 28 April 2014, Department of Biological Sciences, University of Bristol, UK
8. Ecological networks: There's method in the madness. Departmental Seminar, 3 Feb 2014, Centre for Biodiversity and Environment Research, University College London, UK
- 2013 7. *The ghost of nestedness in ecological networks. Complexity Seminar Series, 5 Nov 2013, Keble College, University of Oxford, UK
6. *Modelling and measuring progress in complex systems using directed acyclic graphs. Departmental Seminar, 24 Oct 2013, Institute for New Economic Thinking, University of Oxford, UK
5. *The ghost of nestedness in ecological networks. Departmental Seminar, 25 Feb 2013, Department of Genetics, Evolution and Environment, University College London, UK
- 2011 4. A Bayesian framework for predicting quantitative food-web structure using species traits. Ecological Society of America Annual Meeting, 10 Aug 2011, Austin, TX
- 2010 3. Structural dynamics and robustness of food webs. British Ecological Society Annual Meeting 2010, 7 Sept 2010, Leeds, UK
- 2009 2. Local trophic adaptation requires a new approach to ecosystem robustness. NetSci '09 International Conference on Networks, 2 July 2009, Venice, Italy
1. An entropy-based algorithm to rapidly detect cardiac arrhythmias. Poster presentation. Houses of Parliament, 9 March 2009, London, UK

| | | |
|---------------|--------------------------------------|---|
| VISITS | Professor Berry Brosi | Stanford University |
| 2017 | Predicting plant-pollinator networks | |
| 2015 | Professor Jason Tylianakis | University of Canterbury, New Zealand |
| | Predicting host-parasitoid networks | |
| 2009 | Professor Brian Uzzi | Northwestern Institute on Complex Systems |
| | Robustness of ecological networks | |
| | Professor Jennifer Dunne | Santa Fe Institute |
| | Food webs with trophic adaptation | |
| 2004 | Professor Robert Jahn | Princeton University |
| | Financial market models | |

| | | |
|-------------------------|---|--------------------|
| INDUSTRY 2007 | 23red Brand Communications Agency | London, UK |
| | Consultant on a public sector advertising project | One week |
| 2006 | Nomura Investment Bank Global Markets | London, UK |
| | Consultant in convertible bonds sales and research | Three months |
| 2005 | New Amsterdam Partners Asset Management | New York City, USA |
| | Intern in quantitative research and portfolio management | Three months |
| 2005 | JP Morgan Investment Bank Global Markets | London, UK |
| | Intern in equity research, semiconductor and oil & gas industries | Three months |