

Dear Friends,

Counterintuitively, the difficulty of interacting with a field different from one's own most likely increases in proportion to the relevance of that field. Those fields that have explored similar ideas and concepts, but arrived at different language, different methods and models, and different conclusions and orthodoxies, are the most important to explore, precisely because doing so forces us to revaluate our own views, and our own work.

If Eco² succeeds, then, we hope that you will go away not only with a greatly expanded view of your sister discipline, but also feeling less comfortable with work that fits squarely within the traditions of your own. We hope that one day you will look back and realise that Eco² helped you to begin to explore the space where ecology and economics collide.

At present we have only the dimmest outline of that space. It would be nothing but blackness, had not a small number of pioneers shed light in a few corners, and luckily for us a truly surprising number of those pioneers are here!

To help them to help us to explore even more, we have adopted a notably interactive format for Eco². All that is necessary for these formats to work is that all of us adopt an open mind, try to talk as honestly and freely with as many people as possible, actively seek conversations that take us in new directions, asking any questions that come into our mind, and not be put off by any initial difficulties in understanding.

We have every confidence that you will throw yourself into Eco² in exactly this way.

After all, you are here.

JP, Katja, Matthew and Drew

To submit questions to any session during the conference please e-mail us at ecosquared2014@gmail.com or tweet us at @e2c2o2, using #EcoLSE.





Monday 8 September

12.00 - 13.00 REGISTRATION AND LUNCH Tower 2, Rooms 9.04 and 9.05

> 13.00 - 13.05 WELCOME Drew Purves and Jean-Pierre Zigrand

13.05 - 14.15 PLENARY 1 Fundamentals of ecology and economics Tower 1, Room G.01

Mike Begon, Professor of Ecology at Liverpool University, lead author of the standard ecology undergraduate textbook 'Begon, Harper & Townsend'. Professor Begon will be giving a talk entitled "The Fundamentals of Ecology".

Partha Dasgupta, Professor Emeritus of Economics at the University of Cambridge and author of 'A Very Short Introduction to Economics'.

Moderated by George Sugihara. McQuown Chair in Natural Science at the Scripps Institution of Oceanography, Theoretical Biologist, former advisor to the Bank of England, The Federal Reserve, and a former managing director of Deutsche Bank.

14.30 - 15.45 PANEL SESSIONS

1 Behaviour Tower 1, Room G.01

Luca Borger (Swansea University): Stationarity and diffusivity in animal movements and spatial population dvnamics.

Klarizze Puzon (Fondazione Eni Enrico Mattei (FEEM), and University of Montpellier): Why my participation matters: rent seeking with endogenous price determination.

Tarik Roukny (Université Libre de Bruxelles): On generalists and specialists.

Drew Purves (Microsoft Research): **Co-existence of multiple strategies in** ecosystems.

Session moderated by Nicholas Watkins (Max Planck Institute).

2 Evolution Tower 2, Room 9.05

Thorsten Hens (University of Zurich): On evolutionary finance with emphasis on market selection and asset pricing.

Siddhartha Sanghi (University of Zurich): Evolutionary principles applied to stock market strategies: backtesting and simulations.

Timothy J. Foxon (University of Leeds): Co-evolution in socio-economic systems.

Steven Cousins (Bradford University): The Ecosystem pre-dates the economic system: when and how did the economic system arise.

Session moderated by Gian Marco Palamara (University of Zurich).

15.45 - 16.30 COFFEE BREAK

16.30 - 17.45 PROBLEM SOLVING SESSIONS

Problem set 1 Tower 2, Room 9.05

Claire Wansbury (BES): How can we value the priceless?

Holly McCain (University of Nottingham): How can businesses be encouraged to account for and manage their ecological externalities?

Timothy Johnson (Heriot-Watt University): Possessive individualism or social cohesion:which is a better basis for financial networks?

Adam Formica (University of Oxford): How do global environmental change and fluctuating markets influence conservation planning?

Session moderated by Thomas Lux (Christian-Albrechts-University).

Problem set 2 Tower 2, Room 9.04

William Burnside (University of Maryland): A functional ecology of economic diversity?

Ayse Demir (University of Leicester): **D**isentangling size and efficiency effects of finance: new evidence from transition.

Claudia Capitani (University of York): What are pros and cons of participatory methods in developing socio-economic scenarios?

Sadia E. Ahmed (Microsoft Research): Land use trade-offs in the Amazon.

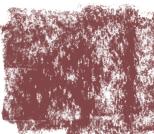
Session moderated by Drew Purves (Microsoft Research).

18.00 - 19.00 KEYNOTE SPEECH **Old Building, Senior Common Room**

Keynote by Lord Robert May, Professor at Oxford University and Imperial College London, ex-President of the Royal Society and ex-UK Chief Scientific Advisor to the UK Government, on "Stability and complexity in financial ecosystems".

The chair of this session will be Jean-Pierre Zigrand (SRC, LSE).

> 19.00 - 20.00 RECEPTION **Old Building, Senior Common Room**





Day One



Tuesday 9 September

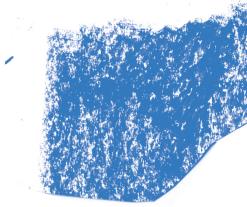
9.30 – 10.00 REGISTRATION Tower 1, main lobby

10.00 – 11.00 PLENARY 2 Important models in economics and ecology Tower 1, Room G.01

Thomas Lux, Chair of Monetary Economics and International Finance at Christian-Albrechts-University in Kiel.

Michel Loreau, Director of the Centre for Biodiversity Theory and Modelling at CNRS, France. Michel will be giving a talk entitled "Can ecology and economics marry? A theoretical ecologist's standpoint". Moderated by Lindsay Turnbull, Associate Professor in the Department of Plant Sciences at the University of Oxford.

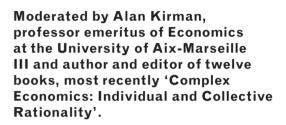
12.30 – 13.30 LUNCH Tower 2, Room 9.04



13.30 – 14.30 PLENARY 3 Application of ecological and economic ideas Tower 1, Room G.01

Kathy Willis, Director of the Biodiversity Institute (BIO) at the Department of Zoology at the University of Oxford and is also on secondment as Director of Science at Kew Gardens.

Thorsten Hens, Director of the Department of Banking and Finance and Professor of Financial Economics at the University of Zurich.



11.15 – 12.30 PANEL SESSIONS

3 Tipping points Venue: Tower 1, Room G.01

Tom Oliver (NERC Centre for Ecology and Hydrology): Are practical indicators of system resilience feasible?

Tim Newbold (UNEP World Conservation Monitoring Centre): Early warning signals of tipping points in a general ecosystem model.

Polina Kovaleva (City University London): The Impact of reduced pretrade transparency regimes on market quality.

Tomaso Aste (UCL and Systemic Risk Centre): Onset of systemic fragility due to counterparty risk in a stylized banking system.

Session moderated by Carole Dalin (Grantham Institute, LSE). 4 Ecology economics interface Tower 2, Room 9.05

Alessandro Tavoni (Grantham Institute, LSE): Managing the climate commons at the ecology-behaviour-economics nexus.

Andrew Dorward (SOAS, University of London): Livelisystems – integrating insights from livelihoods ecosystems analysis.

Adam Kleczkowski (University of Stirling): What is the value of resilience? A study in bioeconomics of trees.

Hailun Li (University of Reading): Residents of Beijing more concerned about the environment than economic growth.

Session moderated by Dirk-Jan van de Ven (Grantham Institute, LSE)

14.30 – 16.00 GENERAL DISCUSSION SESSION AND COFFEE BREAK Tower 2, Room 9.04

During this session we will try to identify key questions at the interface of economics and ecology. These questions will then be discussed at the interactive brunch on Day 3.

16.00 – 17.00 KEYNOTE SPEECH Tower 1, Room G.01

Keynote by Doyne Farmer, Professor of Mathematics at Oxford University, where he co-directs the INET Oxford programme on Complexity, on "A theoretical framework for market ecology in finance".

The chair of this session will be Drew Purves (Microsoft Research).

Day Two

Wednesday 10 September

Day Three



9.30 – 10.30 INTERACTIVE BRUNCH AND DISCUSSION SESSION Lionel Robbins Building, Level 4, Room 405

Participants will address key questions at the interface of economics and ecology that were brought forward during the discussion session on Day 2.

10.30 - 11.45 PANEL SESSIONS

5 Emergence and Predictability Lionel Robbins Building, Room 405

Joseph R. Burger (University of New Mexico): Urban densities and energy use: insights from human macroecology.

Francesco Caravelli (UCL): Trophic levels and growth in production networks.

George Sugihara (Institution of Oceanography): Title tbc.

Alan Kirman (University of Aix-Marseille III): Self-organisation in economics: lessons from other disciplines.

Session moderated by Matthew Smith (Microsoft Research).

6 Networks Lionel Robbins Building, Room 407

Fabio Caccioli (University of Cambridge): Financial contagion due to overlapping portfolios.

Omar Guerrero (INET, University of Oxford): Understanding unemployment and labor mobility through networks for firms.

Stefano Battiston (ETH Zurich): Interconnectedness in financial systems and in ecological systems.

Giulia lori (City University London): Financial regulations and bank credit to the real economy.

Session moderated by Alessandro Tavoni (Grantham Institute, LSE).

11.45 – 12.30 REFLECTIONS ON ECO²

12.30 END OF CONFERENCE

Notes

ECO ²	
8 – 10 September, 2014	
London School of Economics	
and Political Scie Houghton St, Lor	
Organised by Kat	tja Neugebauer
 (Systemic Risk Centre, LSE), Drew Purves (Microsoft Research), Matthew	
Pierre Zigrand (S	Research) and Jean- ystemic Risk Centre,
LSE), and design	ed by Rosie Eveleigh.
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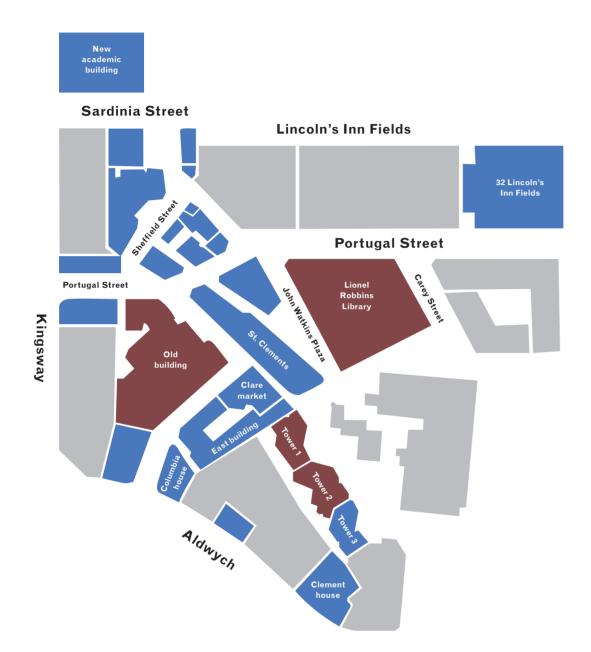
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Tower 1, G.01 / Tower 2, 9.04 (entrance to Tower 2 via Tower 1) for registration and Day 1 and 2 of conference

Old Building, Level 5, Senior Common Room for keynote speech/reception on Day 1

Lionel Robbins Building, Level 4, room 405 (entry via Portugal street) for Day 3 of conference