

A Proposed Lorentz Workshop on “Cross-scale Resilience In Socio-Ecological Simulations”

Purpose of this document

To attract participants in order to apply for a Lorentz Centre Workshop on the above topic (applications need to include a list of intended participants). Lorentz workshops are nice in that they provide some funding for it, do all the admin and provide excellent facilities for week long, in-depth discussion (see <http://lorentzcenter.nl> for more details).

Target size 25 people. Target workshop week 8-12 May 2017 (±1 week).

Topic

1. Mankind is having a huge impact upon the species with which it cohabits, maybe to the extent that we are causing a sixth major extinction of species at this very moment.
2. To address this we need to understand *how* societies interact with their local ecologies; hence how they are fragile/resilient to this impact, structural change and other shocks.
3. Thus, simulations are needed that truly integrate societal and ecological systems otherwise we may miss important complex interactions. Simulations also allow us to generate multiple artificial ‘histories’ from which we can gain a deeper understanding of resilience.
4. However, understanding and building theories from such ‘doubly complex’ simulations is challenging and requires new approaches and techniques in order to analyse them.
5. In particular, assessment of resilience needs to be multi-scale in organisational level and space-time – it is no good saving global species variety if we destroy local niches or communities in the process; it is also no good designing governance for socio-ecological system-level resilience that does not provide sufficient and reasonably equally distributed resilience for individuals in the system.

Aims of Workshop

- To gather together a small number of highly motivated researchers on the above topic
- To identify the principal challenges of the project as well as possible ways forward
- To identify synergies and complementary skills among participants
- To foster longer-term collaborations that will ensure this project is significantly progressed
- Which might include joint: publications, grant applications and further meetings.

Steps for Participation

1. Send Bruce Edmonds an email including your name, institution, nationality, contact details and brief paragraph indicating your interest in this topic (please say if you are within 5 years after the completion of your PhD or studying for one) **by the 4th September**. This implies a commitment to attend the workshop if it is accepted (barring unforeseen difficulties).
2. Those accepted will be notified by the 12 September (hopefully before this).

Confirmed Organizers and Co-organizers

- *Bruce Edmonds*, Centre for Policy Modelling, Manchester Metropolitan University, UK.
- *Gary Polhill*, James Hutton Institute, Aberdeen, UK.
- *Nanda Wijermans*, Stockholm Resilience Centre, Stockholm, Sweden.
- *Eline de Jong*, Wageningen University, Netherlands.
- *Christophe le Page*, Laboratory of Applied Ecology, University of Brazil.

Contact

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