

Workshop on Cascades

19 and 20 January 2017, HG D 16.2, ETH Zurich

About:

As part of the ETH48 Research Project, the ETH Risk Center organizes a workshop that brings together experts on cascade phenomena from various disciplines. We identify commonalities and differences between methodological approaches and discuss possible interpretations in different contexts. In particular, we study economic and financial systems, shed light on epidemic spreading, and look at similarities with information cascades in social online media.

Organizing Lead:

Dr. Rebekka Burkholz, Chair of Systems Design and Risk Center, ETH Zurich

Registration:

To register please write an Email to Rebekka Burkholz (rburkholz@ethz.ch) until January 16, 2017. This event is free of charge.

Programme

Thursday, 19 January 2017, ETH Zurich, HG D 16.2

13:00 Opening and Welcome

13:15 Raul Toral, Departamento de Física & Instituto de Física Interdisciplinario y Sistemas Complejos, Spain

Network Effects on an Agent-Based Market Model with Herding Behaviour

14:00 Dionysios Georgiadis, ETH Singapore Center, Future Resilient Systems Programme, Singapore

A Simple Model of Network Degradation

14:45 Coffee Break

15:15 Stefano Battiston, Institute for Banking and Finance, University of Zurich

Rethinking Financial Contagion

16:00 Fabio Caccioli, Department of Computer Science, University College London

Stability Analysis of Financial Contagion due to Overlapping Portfolios

16:45 Coffee Break

17:15 Olivia Woolley Meza, Chair of Computational Social Science, ETH Zurich

Network Structure and Instabilities in Complex Contagion

18:00 Rebekka Burkholz, Chair of Systems Design and Risk Center, ETH Zurich

A Framework for Cascade Processes on Random Networks

19:00 Speakers' Dinner

Friday, 20 January 2017, ETH Zurich, HG D 16.2

08:30 Sergio Gomez, Departamento Ingeniería Informática i Matemàtiques,
Universitat Rovira i Virgili, Spain

Bond Percolation and Cascade Processes in Multiplex Networks

09:15 Jan Nagler, Computational & Theoretical Physics, IfB & Risk Center,
ETH Zurich

Slow Cascades, Fast Cascades, and Control of Connectivity

10:00 Coffee Break

10:30 James P. Gleeson, MACSI, Department of Mathematics and
Statistics, University of Limerick, Ireland

Temporal Profiles of Cascades on Complex Networks

11:15 Manuel Gomez Rodriguez, MPI-SWS, Kaiserslautern, Germany

Stochastic Optimal Control of Cascade Processes

12:00 Lunch

13:15 5th Risk Center Dialogue Event, HG F 1