

507. WE-HERAEUS-SEMINAR

FROM ECOLOGICAL WEBS TO SMART ENERGY GRIDS: EFFICIENT ORGANIZATION IN COMPLEX NETWORKS JACOBS UNIVERSITY BREMEN, JUNE 18-22, 2012



Invited speakers

Bernd Blasius

University of Oldenburg, Germany

Ulrike Feudel

University of Oldenburg, Germany

Nigel Goldenfeld

University of Illinois at Urbana-Champaign, IL, U.S.A.

Henrik J. Jensen

Imperial College, London, U.K.

Stefan Kettmann

Jacobs University Bremen, Germany

Wolfgang Kröger

ETH Zürich, Switzerland

Reimer Kühn

King's College, London, U.K.

Marcelo O. Magnasco

Rockefeller University, New York, U.S.A.

Neo Martinez

PEaCE Lab Berkeley, CA, U.S.A.

Anna Melbinger

LMU, Munich, Germany

Adilson E. Motter

Northwestern University, Evanston, IL, U.S.A.

Jeremy Pitt

Imperial College, London, U.K.

Michel Pleimling

Polytechnic Institute and State University, Virginia, U.S.A.

Karen Smith Stegen

Jacobs University Bremen, Germany

Marc Timme

MPI for Dynamics and Self-Organization, Göttingen, Germany

Tamás Vicsek

Eötvös Loránd University, Budapest, Hungary

Topics include

Evolutionary processes in foodwebs

Extinctions and bursts in populations

Maintenance of biodiversity

Scaling of network complexity with biodiversity

Evolutionary games on the ecological scale

Cyclic competition and its stochastic evolution

Bio-invasion and its spreading dynamics

Loops in vascular systems

Hierarchical dynamics of flocks

Compensatory mechanisms for controlling complex networks

Synchronization of power grids with renewable energy

Capacity analysis of power grids

Risk and vulnerability of energy grids

Organizers

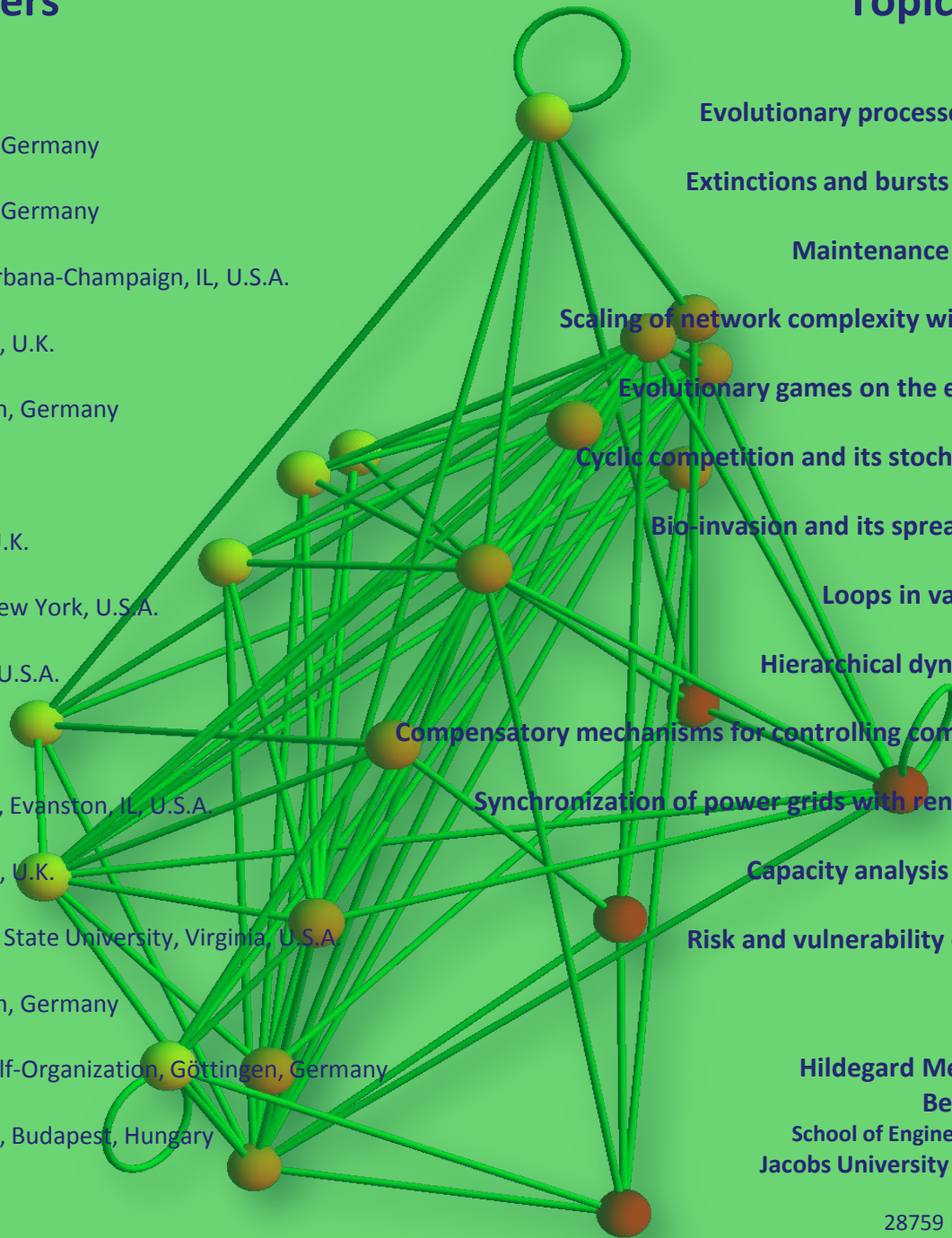
Hildegard Meyer-Ortmanns

Bernhard Kramer

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Jacobs University Bremen gGmbH

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28759 Bremen, Germany



We invite applications from graduate students, PhD students and postdocs with a background in theoretical physics and applied mathematics and an interest in environmental science, particularly in ecology and renewable energy. Applicants from the experimental side should be interested in the mathematical modeling and analysis of experimental data.

For further details please visit

<http://www.jacobs-university.de/ecogrids>

Application deadline: April 30, 2012

Contact: k.hesse@jacobs-university.de

