

Seminar of the working group Schöll **The Role of Symmetries in Dynamical Networks**



Prof. Dr. Eckehard Schöll, PhD
Dr. Anna Zakharova, Dr. Philipp Hövel

Summer Term 2014
EW 731 – Tuesdays 16.00

The seminar offers perspectives on current research of the working group Schöll and the junior research group Hövel in the area Nonlinear Dynamics and Control. The seminar is particularly suitable for BSc and MSc students looking for a final project. Students, who want to obtain a "Seminarschein", are welcome as well.

Spontaneous symmetry-breaking in a complex dynamical system is a universal phenomenon which can occur in diverse fields such as physics, chemistry or biology. It means that processes occurring in nature favor a less symmetric configuration, although the underlying principles can be symmetric. The role of symmetries in the dynamics of complex networks is the focus of the seminar. The seminar will give an overview of currently studied symmetry-breaking phenomena such as chimera states, partial amplitude death, oscillation death. Moreover, the analytical basic principles behind symmetries will be discussed as well as the connection between network symmetry and synchronization.

References can be found here:

[*http://www.itp.tu-berlin.de/schoell/nlds/seminare/*](http://www.itp.tu-berlin.de/schoell/nlds/seminare/)

Schedule and Organization

In case of interest on a particular topic, please contact the respective advisor. The final assignment of the topics will be done on April 15, 2014.

Contact

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