



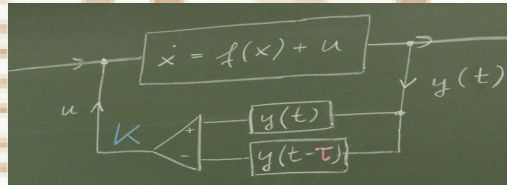
Seminar

Control of complex systems and networks



**Prof. Dr. Eckehard Schöll, PhD, Prof. Dr. Kathy Lüdge,
Dr. Anna Zakharova, Dr. Philipp Hövel, Dr. Iryna Omelchenko**

**Winter Semester 2016/2017
EW 731 - Tuesdays 16:00**



The seminar offers perspectives on our current research in the area of 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.

Control of complex nonlinear systems and networks has various aspects including stabilization of unstable steady states, periodic oscillations, or spatiotemporal patterns, suppression of chaos, design of dynamics of complex networks, and control of the coherence and timescales of noise-mediated motion. Feedback control loops represent an important concept to stabilize unstable states adaptively by using the internal dynamics of the system to adjust the control force. In time-delayed feedback control the control signal is constructed from some time-delayed output variable of the system. The topic of the seminar are promising novel fields of application for control algorithms in complex systems and networks, which find their applications in diverse fields such as lasers, optical systems, power grids, ecological systems, and neural networks.

Literature: <http://www.itp.tu-berlin.de/schoell/nlds/seminare/>

Schedule and Organization

If you are interested in a particular topic, please contact one of the advisors. Final assignment of the topics will be done on 18.10.2016.

Contact

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Theoretical methods and concepts of application