

**LEHRSTUHL FÜR STEUERUNG
INNOVATIVER UND KOMPLEXER
TECHNISCHER SYSTEME
PROF. DR. LASSE GERRITS**



Education Program WS 2015/16

(Main-)Seminar: Theories of Complex Systems

Room: KÄ7/01.10
Time: Wednesday, 10-12 h
Start: 14th of October 2015

Description:

This seminar asks the simple question: what is a system? Technological challenges such as mobility, climate and change and energy generation, demand interventions in a complex whole of relationships between public and private parties, and social and technological infrastructures. Many authors have struggled with systems' theories. This theoretical seminar focuses on these philosophical ideas about the constitution and operations of society as a system or systemic whole(s). Following the work e.g. Schelling (1978), the guiding thread in this module will be the relationship between the individual and the collective and how systems emerge through this relationship. We will discuss the work of prominent thinkers, starting with the work of Von Bertalanffy, through the work of (among others) Parsons and Luhmann, to contemporary iterations by e.g. Holland and Flood.

Learning goals:

- To explain the dynamics of complex systems using theoretical concepts
- To assess various and sometimes contradictory system theories
- To develop a coherent systemic argument about governance issues
- To reflect upon one's own position regarding complex systems in the face of theoretical concepts

Test and grading: Students will conclude the course with a paper in which they will revisit the original question: what is a system? The text should be clear, concise and comprehensive. The short position papers submitted for each session will all contribute to the final paper. A more detailed brief will be made available during the first session.

Please note: a minimum of 3 participants is required for this seminar.

Literature (mandatory)

E-reader, available online through Virtual Campus

See the reading guide on Virtual Campus for a detailed table of contents

Note:

The seminar is taught in English.

Registration:

Registration will be done during the first lesson or via FlexNow!

Speaking hours:

Thursday, 02:00-03:00 p.m.

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