



Lothar-Collatz-Kolloquium für Angewandte Mathematik

Donnerstag, den 12. Januar 2017, um 17:15 Uhr, im Hörsaal 5

Prof. Dr. Birgit Jacob*

(Bergische Universität Wuppertal, Fakultät für Mathematik und Naturwissenschaften)

Hamiltonian systems on infinite-dimensional Spaces

Zusammenfassung/Abstract:

The field of infinite-dimensional systems theory has become a well-established field within mathematics and systems theory. Here we shall focus on the PDE approach to infinite-dimensional linear systems theory. Two examples of such dynamical systems are temperature distribution of metal slabs or plates, and the vibration of aircraft wings. Considering control and the interconnection of two or more of such systems one is led to the class of so called port-Hamiltonian systems. The norm of such a system is given by the energy (Hamiltonian) of the system. This fact enables us to show the existence and stability of solutions. Further, it is possible to determine which boundary variables are suitable as inputs and outputs, and how the system can be stabilized via the boundary.

Kontakt:

Prof. Dr. Timo Reis

Optimierung und Approximation

Raum 123, Tel.: 040 42838-5111

E-Mail: timo.reis@math.uni-hamburg.de

Web: <http://www.math.uni-hamburg.de/home/reis/>

* **Prof. Dr. Birgit Jacob**

Bergische Universität Wuppertal, Fakultät für Mathematik und Naturwissenschaften

Gaußstraße 20, 42119 Wuppertal

E-Mail: jacob@math.uni-wuppertal.de

Web: <http://www.fan.uni-wuppertal.de/jacob.html>

Die aktuelle Version der Kolloquiumsankündigungen (inkl. Abstracts) finden Sie unter:

<http://www.math.uni-hamburg.de/spag/angmath/kolloq/>