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## Vortragsankündigung

Seminar Regelungssysteme LV 0430L654

Montag, 6. Juli 2015, 16:00 Uhr  
Vortragsort: EN 223

**Dr. Richard Pates**  
University of Cambridge, UK

### “Scalable design of heterogeneous networks”

A systematic approach to the analysis and design of a class of large dynamical systems is presented. The approach allows decentralised control laws to be designed independently using only local subsystem models. Design can be conducted using standard techniques, including loopshaping based on Nyquist and Popov plots,  $H_\infty$  methods, and  $\mu$ -synthesis procedures. The conditions are used to demonstrate that the oscillatory modes within a benchmark power system model are sufficiently well damped. The analysis is then extended to provide the same guarantees for power systems models of arbitrary size.