Universität Konstanz

**Fachbereich
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Einladung

Im Rahmen des Schwerpunktskolloquiums „Analysis und Numerik" hält

Herr Professor Dr. Lars Grüne
(Universität Bayreuth)

am **Montag , dem 14. November 2011**, einen Vortrag zum Thema:

Stabilizing and economic MPC without terminal constraints

Der Vortrag findet um **17.00 Uhr** in Raum **D 406** statt.

Alle Interessenten sind herzlich eingeladen.

Andrea Barjasic
Beauftragte für das Kolloquium

Abstract:

Abstract: Model predictive control (MPC) is a by now well established online optimization method for the control of linear and nonlinear systems. In this talk, we re-interpret MPC as a method to compute approximate solutions to infinite horizon optimal control problems by solving a sequence of finite horizon optimal control problems. We discuss approximation results for two different settings: For stabilizing problems, in which the cost functional penalizes the distance of the state to a desired set point or reference solution, we review results for the approximation property obtained during the last five years. For more general cost functionals - usually termed "economic MPC " in the MPC literature - we present some recent (and less elaborated) approximation results for infinite horizon optimal control problems which exhibit an optimal steady state.

(Volkwein)