



# Einladung zum Oberseminar Wissenschaftliches Rechnen

Julius-Maximilians-Universität Würzburg  
Lehrstuhl für Wissenschaftliches Rechnen IX

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## Nonlocal Optimal Control for a Nonlinear Fokker-Planck Equation

This presentation concerns an optimal control problem ( $P$ ) related to a nonlinear Fokker-Planck equation. The problem is deeply related to a stochastic optimal control problem ( $P_S$ ) for a McKean-Vlasov equation. The existence of an optimal control is obtained for the deterministic problem ( $P$ ). The existence of an optimal control is established and necessary optimality conditions are derived for a penalized optimal control problem ( $P_h$ ) related to a backward Euler approximation of the nonlinear Fokker-Planck equation (with a constant discretization step  $h$ ). Passing to the limit one derives the necessary optimality conditions for problem ( $P$ ).

Ort: Raum 30.02.003 (Mathematik West, 2.Stock)

Zeit: Dienstag, 22.11.2022, 10:15 Uhr

Zu diesem Vortrag laden wir Sie herzlich ein.  
You are cordially invited to this lecture.

*gez. Prof. Dr. Alfio Borzi*  
*gez. Prof. Dr. Frank Werner*