



Wir laden recht herzlich zu einem Vortrag im Rahmen des

Oberseminars Partielle Differentialgleichungen

ein:

**Dr. Martin Saal**

(Technische Universität Darmstadt)

*“The stochastic bidomain problem”*

**Donnerstag, 11. Juli 2019**

Beginn: **15:15 Uhr**

Raum: **F0426**

Interessenten sind herzlich willkommen!

R. Denk, M. Kunze

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**Abstract:** We consider the bidomain problem with FitzHugh-Nagumo transport. The linear part of this system is described by an operator, which admits a bounded  $H^\infty$ -calculus. In a recent work by Hieber and Prb this was used to prove the global existence of solutions for rather rough initial data by deducing energy estimates and applying the theory of critical spaces. We show how to combine their argument with a result on stochastic maximal regularity to obtain a global solution to the bidomain problem with additive noise.

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(eingeladen von Prof. Dr. Robert Denk)