

# Einladung zum Würzburger Mathematischen Kolloquium

Julius-Maximilians-Universität Würzburg • Fakultät für Mathematik und Informatik

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Technische Universität Chemnitz

## An Introduction to Optimum Experimental Design

Mittwoch, den 14. Mai 2014 • 16:15 Uhr

Raum SE 40, Mathematik Ost, Emil-Fischer-Str. 40, Campus Hubland-Nord

### Inhaltsangabe

The determination of unknown parameters in mathematical models is an important problem in applied mathematics. The basic idea is to adjust the model parameters in order to obtain the best agreement between the model's predictions and experimentally observed data. Numerical methods for this problem, which is also known as parameter identification or estimation, and model calibration, are well developed today.

In practical applications however, the identified parameters are perturbed by measurement errors. The accuracy can be verified by statistical methods, e.g., confidence regions. This also allows one to differentiate between suitable and less suitable experiments. In optimum experimental design, the goal is to adjust the experimental conditions in order to maximize the estimation accuracy. In this presentation, we will introduce the underlying concepts using models of ordinary and partial differential equations.



[www.mathematik.uni-wuerzburg.de/kolloquium.html](http://www.mathematik.uni-wuerzburg.de/kolloquium.html)

Zu diesem Vortrag laden wir Sie herzlich ein.  
Im Anschluss an die Vorträge Kaffee und Tee im Foyer vor dem SE 40.

Die Dozentinnen und Dozenten der Mathematik

