

# Einladung zum Würzburger Mathematischen Kolloquium

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

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## Computational methods for large-scale matrix equations and application to PDEs

Mittwoch, 7. Nov. 2018 • 16:15 Uhr

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

### Inhaltsangabe:

Linear matrix equations such as the Lyapunov and Sylvester equations and their generalizations have classically played an important role in the analysis of dynamical systems, in control theory and in eigenvalue computation. More recently, matrix equations have emerged as a natural linear algebra framework for the discretized version of (systems of) partial differential equations (PDEs), and new challenges have arisen. In this talk we review some of the key methodologies for solving large scale linear matrix equations. We will also discuss recent strategies for the numerical solution of more involved equations, such as multiterm linear matrix equations and bilinear systems of equations, which are currently attracting great interest due to their occurrence in new application models associated with PDEs.



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

Die Dozentinnen und Dozenten der Mathematik