

Einladung zum Würzburger Mathematischen Kolloquium

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

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Universität Konstanz

Pseudodifferential operators and maximal L^p - regularity

Mittwoch, den 12. Nov. 2014 • 16:15 Uhr

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

Inhaltsangabe

When solving partial differential equations, pseudodifferential operators appear in a natural way. We will give an introduction into the concept of such operators and how they can be helpful. For the treatment of nonlinear equations, one standard approach is the so-called maximal regularity of the linearization. Therefore, the question of maximal regularity of pseudodifferential operators arises, and we will give some answers in the setting of L^p -spaces.

In many cases the solutions of boundary value problems can be written in the form of an integral operator of specific kind (singular Green operators). We will show that a suitably defined class of singular Green operators has maximal L^p -regularity, thus leading to unique solvability of the related boundary value problems. As an application, we mention the Stokes equation in cylindrical domains.



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

