

Einladung zum Würzburger Mathematischen Kolloquium

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

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A Review of Boundary Condition Techniques for Linear and Nonlinear Schrödinger Equations

Mittwoch, 24. Januar 2018 • 16:15 Uhr

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

Inhaltsangabe:

In this talk we review different techniques to solve numerically the time-dependent Schrödinger equation on unbounded domains. We present and compare several approaches to implement the classical transparent boundary condition into finite difference and finite element discretizations.

We present in detail the approaches of the different authors and describe briefly alternative ideas pointing out the relations between these works. We conclude with several numerical examples from different application areas to compare the presented techniques. Hereby we will mainly focus on the one-dimensional problem.



www.mathematik.uni-wuerzburg.de/kolloquium.html

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



Die Dozentinnen und Dozenten der Mathematik