Einladung zum Oberseminar Wissenschaftliches Rechnen

Julius-Maximilians-Universität Würzburg
Lehrstuhl für Wissenschaftliches Rechnen IX

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Integral equations based methods for the numerical solution of some boundary inverse problems

We consider the numerical solution of some inverse boundary problems using an integral equations approach. The linear inverse boundary problems consist in the reconstruction of Cauchy data for the solution of partial differential equation on a part of a domain boundary. This is done based on the knowledge of the solution on the rest of the boundary (elliptic and parabolic Cauchy problems). The nonlinear inverse boundary problems consist in the reconstruction of the part of a domain boundary from given Cauchy data for the solution of an elliptic or parabolic equation on the another part. Numerical methods are developed for the case of 2D and 3D bounded and semi-infinite domains. Numerical examples are presented.

Ort: Raum 30.02.003 (2. Stock) (Mathegeb. 30 West) Zeit: Montag, 14. Dez. 2015, 14.00 Uhr

Zu diesem Vortrag laden wir Sie herzlich ein.

gez. Prof. Dr. Alfio Borzi
gez. Prof. Dr. Roland Griesmaier