数学与系统科学研究院

计算数学所学术报告

报告人：Professor Peter Deuflhard

(Zuse Institute, Berlin, Germany)

报告题目：

The Grand Four. Affine Invariant globalizations of Newton's Method for Nonlinear Problems

邀请人：　　陈志明院士

报告时间：2018 年 3 月 21 日（周三）

下午 16:00--17:00

报告地点：　数学院南楼N702 教室

报告摘要：

Four affine invariance classes (affine covariance, affine contravariance, affine conjugacy, affine similarity) for nonlinear problems lead to four

different classes of adaptive global Newton algorithms.
Affine covariance applies to boundary value problems for differential equations (both ODEs and PDEs), affine contravariance applies to Fredholm integral equations, affine conjugacy leads to convex optimization, and, last but not least, affine similarity leads to pseudo-continuation methods for equilibrium problems in time dependent ODEs or PDEs. For the latter invariance class rather recent results are presented.

欢迎大家参加！