数学与系统科学研究院

计算数学所学术报告

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报告题目：

Integral-algebraic equations: theory of collocation methods

邀请人： 龚伟 博士

报告时间：2016 年 5 月 18 日（周三）

下午 16:00-17:00

报告地点： 科技综合楼三层

311 报告厅

Abstract：

Our analysis of collocation solutions for general systems of linear integral-algebraic equations (IAEs) is based on the notions of the tractability index and the v-smoothing property of a Volterra integral operator. These are used to decouple the given IAE system into the inherent system of regular second-kind Volterra integral equations (VIEs) and a system of first-kind VIEs. This decoupling is then used to derive the optimal convergence properties of piecewise polynomial collocation solutions. Numerical examples illustrate the theoretical results.

欢迎大家参加！