数学与系统科学研究院

计算数学所学术报告

报告人：**Dr. Hua-sheng XIE**

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报告题目：

Numerical Methods to Solve the Linear and Nonlinear Eigenvalue Problems in Plasma Physics

邀请人：　　毛士鹏 副研究员

报告时间：**2015** 年 **11** 月 **6** 日（周五）

下午 **15:00~16:00**

报告地点：　　科技综合楼三层

311 报告厅

Abstract:

We discuss the matrix methods we developed to solve several typical linear and nonlinear fluid and kinetic eigenvalue problems in plasma physcs, from slab geometry to tokamak geometry.

Refs:

[Xie2013] H. S. Xie, PDRF: A general dispersion relation solver for magnetized multi-fluid plasma, Computer Physics Communications, 2014, 185, 670 - 675.

[Xie2015a] H. S. Xie & Y. Xiao, Parallel equilibrium current effect on existence of reversed shear Alfven eigenmodes, Physics of Plasmas, 2015, 22, 022518.

[Xie2015b] H. S. Xie & Y. Xiao, Unconventional ballooning structures for toroidal drift waves, Physics of Plasmas, 2015, 22, 090703.

[Xie2014] H. S. Xie & Y. Xiao, PDRK: A General Kinetic Dispersion Relation Solver for Magnetized Plasma, Plasma Science and Technology (accept), arXiv 1410.2678, 2014.

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