

**数学与系统科学研究院**  
**计算数学所系列学术报告**

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**报告题目:**

**Theoretical Formulation of Low  
Frequency Waves in Magnetized  
Plasmas upon Gyrokinetic Model**

**邀请人: 郑伟英 研究员**

**报告时间: 2015 年 6 月 29 日 (周一)**

**下午 15:00~17:00**

**报告地点: 数学院南楼七层**

**702 会议室**

## **Abstract:**

**This presentation is to introduce in details the theoretical formulation, developed by Chen and Hasegawa [Journal of Geophysical Research, Vol. 96, No. A2, 1503-1512 (1991)], for waves with low frequencies (less than the gyro-frequency of charge particles in magnetic field) upon gyrokinetic formalism in both space and laboratory plasmas in general magnetic configuration. The framework includes plasma/field nonuniformity, pressure anisotropy, field line curvature, finite Larmor radius, magnetic trapping, wave-particle interaction/resonance, finite coupling between shear (transverse) and compressional (parallel) magnetic perturbations, and so on that can be widely applied to delineate the generating mechanism of varied instabilities observed in magnetized plasmas (e.g., tokamak burning plasmas involved in the DAEPS project).**

**欢迎大家参加！**