

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Chi-Wang Shu**

( *Division of Applied Mathematics, Brown University* )

报告题目:

**Discontinuous Galerkin methods for  
weakly coupled hyperbolic  
multi-domain problems**

邀请人: 陈志明 研究员

报告时间: 2017 年 2 月 22 日 (周三)

上午 10:00-11:00

报告地点: 数学院南楼七层

702 教室

## **Abstract:**

**In this talk, we will describe our recent development and analysis of a discontinuous Galerkin (DG) method to solve weakly coupled hyperbolic multi-domain problems. Such problems involve transfer type boundary conditions with discontinuous fluxes between different domains, calling for special techniques to prove stability of the DG methods. We first prove both stability and error estimates for our DG methods on simple models, and then apply them to a biological cell proliferation model. Numerical results are provided to illustrate the good behavior of our DG methods. This is a joint work with Qingyuan Liu and Mengping Zhang.**

**欢迎大家参加！**