

数学与系统科学研究院

计算数学所学术报告

报告人: **Dr. Zhenning Cai**

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报告题目:

**Recent Advances in the Moment
Methods of Gas Kinetic Theory**

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报告时间: **2015 年 8 月 4 日 (周二)**

上午 10:00

报告地点: 科技综合楼三层

311 报告厅

Abstract:

In 1949, Harold Grad proposed the moment method as a tool of model reduction in the gas kinetic theory. However, this method didn't get much attention until two decades ago. In the recent years, this direction becomes active again and a number of new moment models are developed. This talk summarizes the recent advances in the moment methods, analyzes the techniques in the model reduction, and introduces a new discovery on the drawback of Grad's moment method with large numbers of moments. We propose a possible remedy of this issue by modifying Grad's expansion of the distribution function and adding a conservation fix for mass, momentum and energy. Possible extensions of this method are also to be discussed.

欢迎大家参加！