数学与系统科学研究院

计算数学所学术报告

报告人：Prof. Pilar Ruiz Gordoa

（ Universidad Rey Juan Carlos, Madrid, Spain ）

报告题目：

Second and fourth matrix Painlev´e hierarchies

邀请人： 胡星标 研究员

报告时间：2019 年 4 月 19 日（周五）

晚上 20:00-21:00

报告地点： 数学院南楼七层

702 教室

Abstract:

In this talk we consider the construction of hierarchies of matrix ordinary differential equations, analogous to scalar Painlev´e hierarchies. By considering generalized matrix KdV and mKdV hierarchies we derive a matrix first Painlev´e hierarchy and a matrix second Painlev´e hierarchy. The relationship between the matrix mKdV equation and the matrix second Painlev´e equation is thus clarified. We also investigate properties of the matrix second Painlev´e hierarchy, e.g., auto-B¨acklund transformations. We consider further examples of matrix Painlev´e equations. Our work shows how properties of matrix ODEs can be derived using structures of related matrix PDEs.

欢迎大家参加！