数学与系统科学研究院

计算数学所学术报告

报告人： **Prof. Xianguo Geng**

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报告题目：

Higher-order solutions of a matrix AKNS system associated with a Hermitian symmetric space

邀请人： 常向科 副研究员

报告时间：2019 年 12 月 7 日（周六）

下午 **16:00-17:00**

报告地点： 数学院南楼二层

202 教室

Abstract：

We study a matrix Ablowitz–Kaup–Newell–Segur (AKNS) system associated with a Hermitian symmetric space as a follow-up study of an earlier paper. A multi-fold generalized Darboux transformation of the matrix AKNS system associated with a Hermitian symmetric space is constructed by means of determinants. Subsequently, we derive various higher-order solutions for this system, including fan-shaped rogue wave and (truncated) Kuznetsov–Ma breather solutions. Specifically, we show the fusion and fission processes for two truncated Kuznetsov–Ma breathers by taking different free parameters.

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