数学与系统科学研究院

计算数学所学术报告

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报告题目：

A new integrable convergence acceleration algorithm for computing the sequence transformations via pfaffians

邀请人：　　常向科 博士

报告时间：2016 年 7 月 25 日（周一）

下午 16:00~17:00

报告地点：　　数学院南楼七层

702 会议室

Abstract:

In the literature, most known sequence transformations can be written as a ratio of two determinants. But it is not always this case. One exception is that the sequence transformation proposed by Brezinski, Durbin and Redivo-Zaglia can not be expressed as a ratio of two determinants. Motivated by this, we will introduce a new algebraic tool---pfaffians instead of determinants in the paper. It turns out that Brezinski--Durbin--Redivo-Zaglia's transformation can be expressed as a ratio of two pfaffians.

Furthermore, an extended transformation of high order is presented in terms of pfaffians and a new convergence acceleration algorithm for implementing the transformations is constructed. Then the Lax pair of the recursive algorithm is obtained which implies that the algorithm is integrable.

欢迎大家参加！