

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:

**Order and effective order of
symplectic and G-symplectic
methods**

邀请人: 唐贻发 研究员

报告时间: **2014 年 5 月 5 日 (周一)**

上午 9:30~10:30

报告地点: **科技综合楼三层 311**

计算数学所报告厅

Abstract:

The use of effective order, or processing, has been proposed to enhance the behaviour of symplectic Runge-Kutta methods. A new method in this family is presented with the specific advantage of having a coefficient matrix with only real eigenvalues to enable cheap implementation. For multivalue methods, or general linear methods, the G-symplectic condition is an interesting generalization of the symplectic Runge-Kutta condition. An introduction to these methods will be presented together with an introductory study of order conditions for this type of method. It is found that the G-symplectic conditions result in a simplification of the order conditions, in a similar way to what happens in the case of symplectic Runge-Kutta methods.

欢迎大家参加!