数学与系统科学研究院

计算数学所学术报告

报告人： 吴新元 教授

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报告题目：

Geometric Integrators for Differential Equations with Highly Oscillatory Solutions

邀请人： 洪佳林 研究员

报告时间：2021 年 5 月 11 日（周二）

下午 **15:00-16:00**

报告地点：数学院南楼

702 教室

摘要：

A different and new paradigm appeared in the 1980s and the new paradigm brought many innovative changes. The main aim of the new paradigm is to identify the long-time behaviour of the solutions for the underlying dynamics. The first class to be considered was that of Hamiltonian problems whose study was pioneered by Prof. Feng Kang from Chinese Academy of Sciences. He emphasized that to build the new integrators, the geometric notion of symplecticity was essential and traditional ideas of stability and consistency were not sufficient. Another area that has kept growing in importance within Geometric Integration is the study of highly-oscillatory problems. A further study of novel geometric integrators has become increasingly important in recent years. The main theme of this talk is geometric integrators for highly oscillatory problems that can be formulated as systems of ordinary and partial differential equations, and we will focus on oscillation-preserving integrators for systems of second-order ordinary differential equations with highly oscillatory solutions.

欢迎大家参加！