



复旦大学数学科学学院 数学综合报告会

报告题目: **Determination of masses in General Relativity:
stationary fluid systems in the weak-field regime**

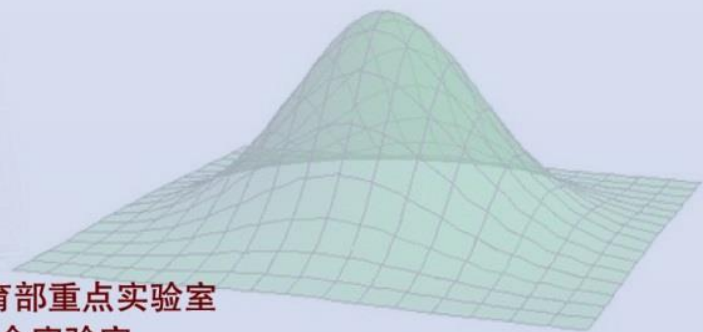
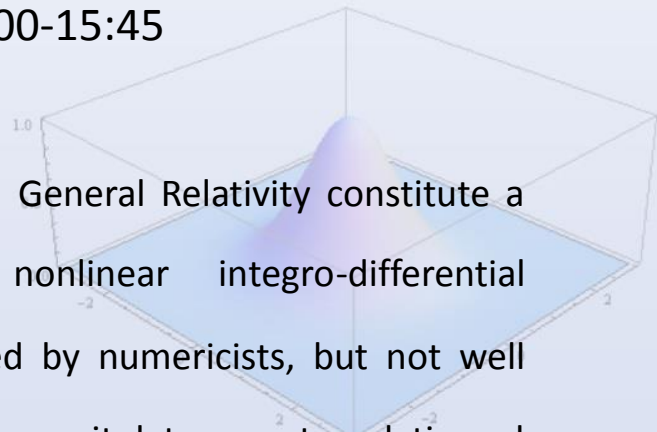
报告人: Edward Malec

(Jagiellonian University, Cracow, Poland)

报告时间: 2016-11-02 星期三 15:00-15:45

报告地点: 光华东主楼 1501

摘要: Stationary hydrodynamic systems in General Relativity constitute a serious challenge. They are described by nonlinear integro-differential equations with a free boundary, investigated by numericists, but not well studied in the mathematical literature. We recapitulate recent analytic and numerical results on new effects, that appear for weak gravitational fields, in the so-called first post-Newtonian approximation. One of the exciting implications is that one can estimate the mass of a gaseous disk rotating around a spinless black hole.



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