

数学与系统科学研究院

计算数学所学术报告

报告人: **Prof. Michal Krizek**

( *Institute of Mathematics, Czech Academy of Sciences, Prague* )

报告题目:

**Anitigravity - Its Origin and Manifestations**

邀请人: 周爱辉 研究员

谢和虎 副研究员

报告时间: 2016 年 1 月 19 日 (周二)

上午 10:00~11:00

报告地点: 数学院南楼七层

702 会议室

## **Abstract:**

One hundred years ago, Albert Einstein came up with a new theory of gravitation. Later he added to his field equations the cosmological constant which is accountable for the accelerated expansion of the universe. Thus a natural question arises concerning what is the energy source for this expansion. The lecture is about the novel concept of antigravity and antigravitational forces. We present various observational arguments showing the expansion on small cosmological scales. In particular, the Solar system and single galaxies expand at a rate comparable to the Hubble constant. The novelty of our ideas is that traditionally the expansion of the universe according to Edwin Hubble has been assumed to take place only between galaxies. The boldness of our approach is that it points to a weak violation of the law of conservation of energy. We claim that any system of free bodies that interact gravitationally with delays expands on average. We suggest that this is due to gravitational aberration effects resulting from a finite speed of gravity.

**欢迎大家参加！**