

报告题目: Well-posedness for fluid free boundary problems in general relativity

报告人: 缪爽, 武汉大学

时 间: 2024 年 11 月 17 日 (周日), 14:00 - 15:00

地 点: 东区五教 5106

摘要: In the framework of general relativity, the dynamics of a barotropic fluid are coupled to the Einstein equations, which govern the structure of the underlying spacetime. The free boundary problem of such models can describe the motion of isolated bodies in universe and appears in many physical contexts. In this talk I shall present our recent progress on well-posedness of such free boundary problems in Sobolev spaces. This talk is based on joint works with Sohrab Shahshahani, Zeming Hao and Wei Huo.

个人简介:

暂无。

报告题目: Normal numbers and multiple ergodic averages

报告人: 廖灵敏, 武汉大学

时 间: 2024 年 11 月 17 日 (周日), 15:00 - 16:00

地 点: 东区五教 5106

摘要: We demonstrate that the Hausdorff dimension of the set of normal numbers in base 2 whose binary expansions satisfy the condition that for any k , the k -th and $2k$ -th digits are not both equal to 1, is one-half. Furthermore, we establish a formula for the Hausdorff dimension the set of normal numbers in base 2 with given limit of multiple ergodic averages of some special function. This is a joint work with Michal Rams.

个人简介:

廖灵敏, 2008 年获法国 Picardie 大学及武汉大学博士学位。2010 年获法国东巴黎大学终身教职。2017 年获 Habilitation。2021 年 12 月入选国家海外引进高层次人才青年项目。2022 年 7 月入职武汉大学, 任教授博士生导师。主要从事分形几何, 动力系统, 度量数论等方面的研究。在 J. Eur. Math. Soc.、Math. Ann.、Adv. Math. 等期刊发表论文四十余篇。

报告题目: 海森堡群上的分数次薛丁格方程

报告人: 谭经刚, 江西师范大学

时 间: 2024 年 11 月 17 日 (周日), 16:00 - 17:00

地 点: 东区五教 5106

摘要: The paper is dedicated to study the decay estimate for a class of dispersive semigroup on H-type groups. Our approach is based on the non-commutative Fourier transform on H-type groups, the properties of the Laguerre functions and Bessel functions, and the stationary phase lemma. Finally, as applications, we derive the Strichartz inequalities for the solutions of some specific equations, such as the fractional Schrodinger equation, the fourth-order Schrodinger equation, the beam equation and the Klein-Gordon equation. (With Manli Song)

个人简介:

谭经刚, 江西师范大学教授, 智利大学工程科学博士(2003-2008)(导师: P. Felmer 院士)和西班牙加泰罗尼亚理工大学应用数学博士(导师: X. Cabré 院士), 主要研究分次拉普拉斯及其在几何, 概率, 物理方面的应用。曾任智利圣玛丽亚科技大学数学系副研, 助理教授(tenured); 3次获得智利国家自然科学基金资助。