

几何、分析和量子信息小型研讨会
上海交通大学数学科学学院主办
2017年4月22日-23日

组织者: Xianqing Li-Jost (Max-Planck Institute for Mathematics in the Sciences); 杨义虎 (上海交通大学); 周春琴 (上海交通大学); 朱苗苗 (上海交通大学)

会议议程	
4月22日, 数学楼大会议室	
上午	
09:30 - 09:50	会议注册
09:50 - 09:55	开幕式
09:55 - 10:40	邱红兵 武汉大学 题目: <i>V-harmonic maps and its related problems</i>
10:40 - 11:00	茶歇
11:00 - 11:45	刘世平 中国科技大学 题目: <i>Discrete Bonnet-Myers Theorem</i>
12:00 - 14:00	午餐
下午	
14:00 - 14:45	卢文联 复旦大学 题目: <i>Coordination in complex networked systems with diverse coupling configurations: time-dependent, delay and event-triggering</i>
14:45 - 15:30	李明 中国石油大学(华东) 题目: 《真正多体纠缠判定及度量》
15:30 - 16:00	合影和茶歇
16:00 - 16:45	张廷桂 海南师范大学 题目: 《量子纠缠及其他量子关联》
17:30	晚餐
4月23日, 数学楼大会议室	
上午	
10:00 - 10:45	龙旻靖 上海交通大学 题目: <i>Graph quantum homomorphisms and beyond</i>
10:45 - 11:05	茶歇
11:05 - 11:50	孙林林 中国科技大学 题目: <i>Eigenvalue bounds of the Hodge Laplacian</i>
12:00 - 14:00	午餐
下午	
14:00 - 16:00	讨论

报告摘要

真正多体纠缠判定及度量

李明
中国石油大学（华东）
liming@upc.edu.cn

我们研究了三体真正纠缠判据的构造以及真正纠缠并发度的下界估计。基于量子态的 Bloch 向量、PPT、重排判据等构造了检测三体真正纠缠的有效判据。利用 Bloch 向量分析构造了真正纠缠并发度的下界。

Discrete Bonnet-Myers Theorem

刘世平
中国科技大学
spliu@ustc.edu.cn

We will discuss a Bonnet-Myers type diameter bounds for graphs having a positive Ricci curvature bound in the sense of Bakry-Emery. This is based on a joint work with Florentin Munch and Norbert Peyerimhoff.

Graph quantum homomorphisms and beyond

龙旻靖
上海交通大学
yilong@sjtu.edu.cn

In this talk we will speak about graph homomorphisms and its application in biology and quantum information.

Coordination in complex networked systems with diverse coupling configurations: time-dependent, delay and event-triggering

卢文联
复旦大学
wenlian@fudan.edu.cn

Coordination behaviors, including synchronization, consensus and stability, in complex network systems have been widely studied over the last a few decade. They are characterized by that all states of nodes approach to a uniform dynamical behaviors and generally realized by the cooperative interactions among nodes in the complex network. In this talk, I would like to present recent

results about synchronization and consensus in complex networked systems with diverse coupling configurations, including time-dependent topology and couplings, communication and processing delays, event-triggering and self-triggering rules.

V-harmonic maps and its related problems

邱红兵
武汉大学

hbqiu@whu.edu.cn

In this talk, we shall introduce the problems of V-harmonic maps from both analytic and geometric aspects. Concretely, we give existence theorems for V-harmonic maps from complete manifolds into regular balls and the corresponding heat flows. On the other hand, we also consider some geometric applications such as rigidity theorems for self-shrinkers and translating solitons as their Gauss maps are some V-harmonic maps.

Eigenvalue bounds of the Hodge Laplacian

孙林林
中国科技大学

sunll@ustc.edu.cn

I will talk about the first eigenvalue bounds of the Hodge Laplacian operator acting on differential forms on closed submanifolds. Some applications on geometry will be given. This is a partial joint work with Cui Qing.

量子纠缠及其他量子关联

张廷桂
海南师范大学

tinggui333@163.com

我们首先介绍一种新的纠缠判据，其次介绍与量子纠缠相关的其他概念，并介绍一个对各种量子关联具有单调关系的量化。