

2020 Tianyuan Advanced Seminar on Geometry and Analysis 2020

天元几何与分析高级研讨班

主办：上海交通大学数学科学学院

地点：理科六号楼 706

时间：2020/11/07-11/08

会议日程

	11/07	11/08
	Chair: 王作勤	Chair: 来米加
9:30-10:20	徐国义	讨论
10:50-11:40	李逸	讨论
	Chair: 华波波	
2:00-2:50	周杰	
3:20-4:10	何遵武	

Title and Abstract

何遵武 复旦大学

题目：A remark on the actions of some groups on the product of Hadamard spaces.

摘要：For a product of Hadamard spaces $X=X_1 \times X_2$ on which some group $G \subset \text{Is}(X_1) \times \text{Is}(X_2)$ acting, G. Link [\cite{1}](#) introduced the growth rate δ_{θ} of slope θ to construct a G -invariant (b, θ) -density. She showed that δ_{θ} is upper semi-continuous in the slope θ . First, we show that δ_{θ} is continuous in the slope θ as the above G with some mild condition. The above result enables us to remove some assumptions of several main theorems of G. Link. Second, we give a negative answer to a question raised by G. Link in [\cite{1}](#) in general. And further results about the question are discussed.

李逸 东南大学

题目：几何流中局部曲率估计简介

摘要：本次报告首先引入 Ricci 流中局部曲率估计的主要想法，然后把该想法应用到其它几何流上从而得到一些新的结果。

徐国义 清华大学

题目：The Weyl law revisited.

摘要：H. Weyl proved the Weyl law about the limit behavior of eigenvalues for 2-dimensional domains. He claimed that his method also works in higher dimensional case. For Dirichlet eigenvalues, his claim can be verified directly. The case of Neumann eigenvalues is not trivial due to the lack of monotonicity comparison results in this case. We will sketch our proof of the Weyl law for all dimensions, following the Weyl's original method of 'cutting-pasting'. And we will point out the difficulty in higher dimensions, and the way to overcome them. The key technical idea is linear approximation of any domain and its related comparison results for eigenvalues. This a joint work with Weiwei Wang and Zuoqin Wang.

周杰 清华大学

题目: Topological structure of a varifold--under a critical curvature condition

摘要: Allard's regularity theorem says that a rectifiable varifold with small density excess and generalized mean curvature in a supercritical Lebesgue space has smooth manifold structure. In this talk, we explore a critical (scaling invariant) curvature condition under which a varifold has topological manifold structure. This work extends the speaker's previous work in two dimension to high dimensions.