



華東師範大學 | 数学科学学院
School of Mathematical Sciences, East China Normal University

2024 年 ECNU 代数几何研讨会 (11.01) 程序册

华东师范大学闵行校区, 上海

2024.10.31-2024.11.01

会议报告人 (按姓氏拼音排序)

刘济豪 (北京大学)

宋雷 (中山大学)

组织委员会 (按姓氏拼音排序)

杜荣 吕鑫 陆俊 孟晟 戚鲁 谈胜利 张通

日程安排

11 月 01 日

地址:华东师范大学 (闵行) 数学科学学院数学楼 102

时间	会议内容	主持人
上午	自由讨论	
13: 00-14: 00	刘济豪: How Are Generalized Pairs Applied in Foliation Theory?	吕鑫
14: 00-14: 30	中场休息	
14: 30-15: 30	宋雷: On the Du Bois property of secant varieties	吕鑫
17: 30-19:00	晚宴	

报告摘要

How Are Generalized Pairs Applied in Foliation Theory?

刘济豪

北京大学

Abstract: The concept of generalized pairs, introduced by Birkar and Zhang, plays an important role in modern birational geometry. This concept has been particularly crucial in proving the Borisov-Alexeev-Borisov conjecture and the McKernan-Shokurov conjecture. In this talk, I will explain how the theory of generalized pairs is applied to foliation theory from various perspectives, including but not limited to: Bertini-type theorems, the canonical bundle formula, the minimal model program (MMP) with scaling, the base-point-freeness theorem, the existence of flips, flops between minimal models, and the explicit adjunction formula. The talk is based on several joint works and ongoing collaborations with one or more of the following scholars: Paolo Cascini, Guodu Chen, Yifei Chen, Jingjun Han, Yujie Luo, Fanjun Meng, Calum Spicer, Roberto Svaldi, Yanze Wang, and Lingyao Xie.

On the Du Bois property of secant varieties

宋雷

中山大学

Abstract: I will show the singularities of the secant variety to a smooth projective subvariety embedded by a sufficiently positive (pluri-) adjoint linear series are Du Bois but not rational in general. Moreover, the secant variety can be p -Du Bois, in the sense of Shen-Venkatesh-Vo, if certain Hodge numbers are zero; however it is almost never $(p-1)$ -rational. So unlike local complete intersections, p -Du Bois does not imply $(p-1)$ -rational for secant varieties. The talk is based on the joint work with C-C. Chou and with S. Olano and D. Raychaudhury.