“北京几何日”会议信息

2022.4.15-4.16

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“北京几何日”会议日程

“Beijing Geometry Day” Program

2022.4.16

9:30-9:40　开幕式

9:40-10:30 戎小春（Rutgers University）

Title: A property of collapsing with local Ricci bounded covering geometry and applications

ABSTRACT. Given a collapsing Ricci limit space, $(M_i, p_i) \to (X, p)$, for $\rho > 0$ and $x_i \in M_i$, let $\pi_i : (\widetilde{B_{2\rho}(x_i)}, \tilde{x}_i) \to (B_{2\rho}(x_i), x_i)$ be the Riemannian universal cover, and $\Gamma_i = \pi_1(B_\rho(x_i), x_i)$. In this paper we investigate an equivariant Gromov-Hausdorff convergence: $(\pi_i^{-1}(\bar{B}_\rho(x_i)), \tilde{x}_i, \Gamma_i) \longrightarrow (\tilde{X}, \tilde{x}, G)$, and show that if $\mathrm{vol}(B_\rho(\tilde{x}_i)) \geq v > 0$, then G has no fixed point. We also give some application in a 'classification' for compact 4-manifolds with bounded diameter and local Ricci covering geometry.

11:00-11:50　张瑞珈　（清华大学）

Title: A Flow approach to the prescribed Gaussian curvature problem in hyperbolic space

Abstract. The Alexandrov problem is one of the classical problems in convex geometry, which relates to differential geometry and geometric PDEs. In this talk, we introduce a flow approach to the corresponding problems for prescribing the Gauss curvatures of hypersurfaces in hyperbolic space. This is a joint work with Prof. Haizhong Li.

14:00-14:50　袁原　（Syracuse University）

Title: Weighted Sobolev regularity of Bergman projection on symmetrized Bidisk

Abstract: The regularity of Bergman projection is one of the classical problems in complex analysis. L^p and Sobolev regularities on some domains with nonsmooth boundary (e.g. Hartgos triangle, quotient domains) have been studied intensively recently. The symmetrized bidisk is another interesting model of non-smooth domains. In this talk, I will discuss the regularity of the Bergman projection on the weighted Sobolev space over the symmetrized bidisk. This is a joint work with L. Chen and M. Jin.

15:10-16:00　周易　（北京师范大学）

Title: Holomorphic d-scalar curvature on almost Hermitian manifolds

Abstract: In this talk, we introduce our recent work on the existence of constant holomorphic d-scalar curvature and the prescribing holomorphic d-scalar curvature problem on closed, connected almost Hermitian manifolds of dimension n ≥ 6. In addition, we obtain an application and a variation formula for the associated conformal invariant.