

CONSTANT CURVATURE CONICAL METRICS

Speaker: Xuwen Zhu
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Time: Wed, Dec 23, 09:00-11:00

Tencent room: 527 440 940

Abstract: The problem of finding and classifying constant curvature metrics with conical singularities has a long history bringing together several different areas of mathematics. This talk will focus on the particularly difficult spherical case where many new phenomena appear. When some of the cone angles are bigger than 2π , uniqueness fails and existence is not guaranteed; smooth deformation is not always possible and the moduli space is expected to have singular strata. I will give a survey of several recent results regarding this singular uniformization problem, connecting microlocal techniques with complex analysis and synthetic geometry. Based on joint works with Rafe Mazzeo, Bin Xu, and Mikhail Karpukhin.