北京理工大學

数学与统计学院学术报告

Existence of Prescribing scalar curvature problem on the negative Yamabe case

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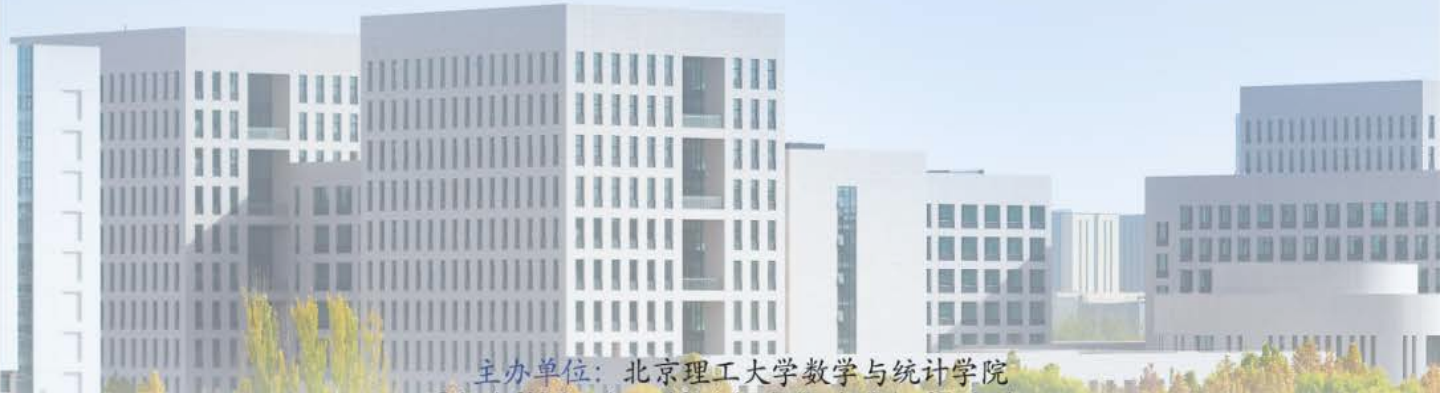
摘　要： The problem of prescribing conformally the scalar curvature on a closed manifold of negative Yamabe invariant is always solvable if the function to be prescribed is strictly negative, while sufficient and necessary conditions are known in the case that function is non-positive. Still in the case of a negative Yamabe invariant, Rauzy showed solvability, if the function to be prescribed is not too positive. In this talk we will review these results variationally, show the existence of minimizability under smallness assumptions on K+ = max{K, 0} and talk what happens when the relevant arguments fail to apply. In particular, we will construct a function, for which saddle point solutions to the conformally prescribed scalar curvature problem still exist. In collaboration with Martin Mayer.

个人简介： 朱超娜，宁波大学教授。2019年博士毕业于中国科学技术大学，先后在中科院数学与系统科学研究院、罗马第二大学做博士后研究。研究方向为几何分析，主要研究共形几何中的偏微分方程、调和映照及Dirac调和映照，研究成果发表在Tran AMS，CVPDE，Sci China Math等杂志上。曾获第十六届钟家庆数学奖。



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