



北京理工大学

数学与统计学院学术报告

A new class of fully nonlinear elliptic equations arising in conformal geometry

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摘要: In this talk, I will report a recent work with Bo Guan. We introduce the definition of eigenvalues of the Riemannian curvature tensor and consider the existence of conformal metrics with a prescribed symmetric function of the eigenvalues of the Riemannian curvature tensor. Such problem can be rewritten as a class of fully nonlinear elliptic equations. We prove the interior gradient and second order estimates. We also prove the compactness of the solution set in some cases with positive Ricci curvature.

个人简介: 矫贺明, 哈尔滨工业大学数学学院教授, 博士生导师。主要从事几何分析与偏微分方程的研究, 近些年在Hessian方程、预定曲率方程等方向取得了一些优秀的成果, 已在JFA、CVPDE、IMRN、JGA等本领域权威期刊发表多篇论文。