学术报告

Large plate bending with isometry constraint: FEM vs machine learning

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摘要：We study a minimization problem that arises from a plate bending model with isometry constraints. Both finite element method and machine learning based method are exploited to investigate the convergence of the minimizer, and to what degree the isometry constraints are met by the proposed methods. We found that FEM may have certain a-priori theoretical convergence guarantee, while machine learning method seems more efficient in most cases under study. This is a joint work with Li, Xiang and Liao, Yulei.

个人简介：明平兵，中国科学院数学与系统科学研究院研究员，科学与工程计算国家重点实验室副主任，主要从事固体多尺度建模、模拟及多尺度算法的研究。他曾应邀在SCADE2009，The SIAM Mathematics Aspects of Materials Science 2016等会议上作大会报告。明平兵于2014年获得国家杰出青年基金，于2019年入选第四批国家中青年科技创新领军人才计划，2023年荣获第十五届"冯康科学计算奖"。

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