数据科学与深度学习
博士生与青年学者论坛

Local polynomial reproductions and partial differential equations on surfaces



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时间：2026年11月9日 17:00-18:00

线上会议：https://webconf.hrz.uni-marburg.de/n/rooms/qxi-yzx-bsl-tlk/join

摘要： In this talk, we will discuss recent progress in the design of local polynomial reproductions on surfaces. Local polynomial reproductions have proved useful in a variety of numerical methods; here, we will focus on their specific application to solving transport equations on surfaces. In particular, we will consider methods based on semi-Lagrangian schemes and provide a higher-order error analysis.

个人简介： Christian Rieger has been a Professor in the Department of Mathematics and Computer Science at Philipps-Universität Marburg since 2020. He studied mathematics at the University of Göttingen, receiving his Diploma in 2005 and his PhD in 2008 under the supervision of Robert Schaback. He was a postdoctoral researcher at the University of Bonn from 2009 to 2020 and served as acting professor at RWTH Aachen in 2018–2019. His research interests include approximation theory, particularly high-dimensional problems and kernel methods; meshfree methods for partial differential equations; approximation and PDEs on manifolds; uncertainty quantification; and kernel-based machine learning.