



## 复旦大学数学科学学院 数学综合报告会

### 午间学术报告会（二百零三）

报告题目：Math vs AI 系列报告1: Function Spaces in Neural Networks: Theory and Applications

报告人：陆帅

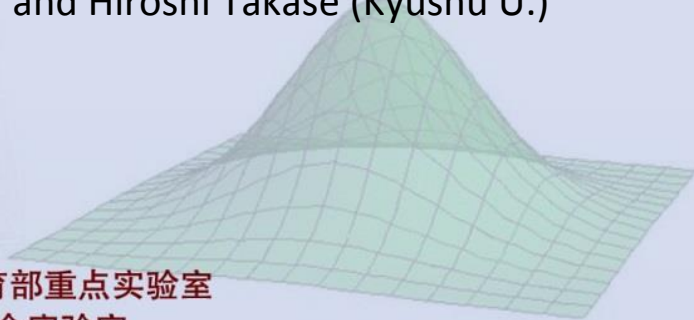
（复旦大学数学科学学院）

报告时间：2026-05-29 星期五 12:00-13:00

报告地点：光华东主楼 2201

摘要：

We investigate several norm spaces derived from neural network architectures, including (extended) Barron spaces, variation spaces, Radon-BV spaces, and spectral Barron spaces. This talk systematically explores the relationships among these spaces, develops new analytical tools across different frameworks, and examines their applications in partial differential equations, as well as in related inverse problems and regularization methods. This is a joint series of works in collaboration with Mourad Choulli (U. Lorraine), Yuanyuan Li (CUHK), Peter Mathé (WIAS), Sergei V. Pereverzev (RICAM) and Hiroshi Takase (Kyushu U.)



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