



复旦大学数学科学学院 数学综合报告会

报告题目: Formalization of non-Archimedean functional analysis

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地点: 光华楼东主楼2001

报告摘要:

In this talk, I will introduce the formalization of the foundations of non-Archimedean functional analysis in Lean 4. This work includes the basic properties of spherical completeness, examples and non-examples such as the field $\mathbb{C}_p$ of p -adic complex numbers. As applications, we formalize Hahn-Banach extension theorem and the spherical completion for non-Archimedean Banach spaces. If time permits, I will also talk about how formalization strengthen our trust on mathematical proofs in the era of AI.

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