



复旦大学数学科学学院 数学综合报告会

报告题目: From Homotopy to Isotopy: Embedded Surfaces in 2-sphere Bundles over Surfaces

报告人: 尤淇正 (北京大学)

时间: 2026-10-28 星期五 13:30-14:30

地点: 光华东主楼1513

报告摘要:

This talk concerns the smooth isotopy classification of embedded surfaces in orientable 2-sphere bundles over surfaces, with a common geometric dual. When the embedded surfaces have the same genus as the base, the Dax invariants detect and classify the obstructions from homotopy to isotopy. In higher genus, it's shown that homotopy implies isotopy, because a single internal stabilization eliminates these obstructions. The Dax invariants also provide information on the structure of the mapping class groups of the total spaces of these bundles.

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