




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 星期三 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.

非线性数学模型与方法教育部重点实验室
中法应用数学国际联合实验室
上海市现代应用数学重点实验室
复旦大学数学研究所