



复旦大学数学科学学院 数学综合报告会

报告题目: Some Blanchfield pairings of torus knots

报告人: Koki Yanagida (Saga University)

时间: 2025-09-09 星期二 9:40—10:40

地点: 光华东主楼1601

报告摘要:

The Blanchfield pairing and the twisted Blanchfield pairing are hermitian sesquilinear forms defined on the homology of the exterior of a given knot. These forms contain geometric information about knots, such as the algebraic unknotting number and sliceness. In previous studies on explicit computations of these forms, several methods based on the Wirtinger presentation have been proposed. However, these methods are difficult to apply to knots with large Seifert genera or high crossing numbers, including the torus knots. In this talk, we describe a procedure for computing (twisted) Blanchfield forms using taut identities, and present several computational results for torus knots obtained via this procedure.

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