

Talk Title: Topological Complexity of S^3/Q as a Linear Problem

Abstract: In 2010, M. Sakai and I showed that the topological complexity of a space X coincides with the fibrewise unpointed L-S category of a pointed fibrewise space $\text{proj}_1 : X \times X \rightarrow X$ with the diagonal map $\Delta : X \rightarrow X \times X$ as its section.

In this paper, we describe our algorithm how to determine the fibrewise L-S category or the Topological Complexity of a topological spherical space form. Especially, for S^3/Q_8 where Q_8 is the quaternion group, we write a python code to realise the algorithm to determine its Topological Complexity.

This is a joint work with Yuya Miyata.