
GEUNYOUNG KIM, McMaster University

Heegaard diagrams for 5-manifolds

In three dimensions, Heegaard diagrams are a powerful combinatorial tool for studying 3-manifolds, as they encode a 3-manifold using circles on a surface. In this talk, I will describe how to extend this idea to 5-manifolds by introducing a higher-dimensional version of Heegaard diagrams. I will discuss the construction and present several examples to illustrate how these diagrams can be used to understand the topology of 5-manifolds.