Marc Kegel

Title: Unrecognizable manifolds and uncomputable invariants.

Abstract: In this talk, we will discuss some recent results on the limits of computation in topology, with a particular focus on dimension four. We will explain what it means for a manifold to be algorithmically unrecognizable and how undecidable problems in group theory give rise to such examples. We will then explore the consequences for the computability of topological invariants.