

Three-manifold Topology after Perelman

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The recently proved Poincare and Geometrization theorems of Perelman are now considered to be part of the established theory of 3-manifolds. We discuss some of its impact on our understanding of the role of the fundamental group of 3-manifolds. In 2007 Calegari, Freedman and Walker applied the Geometrization theorem to show that universal topological quantum field theory captures the classification of 3-manifolds. This is very interesting because the corresponding statement in all dimensions greater or equal to 4 is known to be false. The talk will try to give an idea of the spirit of the Calegari-Freedman-Walker theorem.

Friday, November 14th, 2008

2:40PM

Room: MG 120

Refreshments in MG 226 at 2:20pm