

The Trivial Notions Seminar

Proudly Announces

3-manifolds that go bump in the night

A talk by
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Abstract

By the early 1900's, mathematicians had more or less completely nailed down the topology of 1 and 2 dimensional manifolds, and had flushed out the important facts through rigorous proofs. The Jordan curve theorem and the classification of surfaces immediately come to mind. In this talk, I will describe some famous counterexamples in 3-dimensional topology which show that the situation in this dimension is vastly more complicated. Relying on various infinite constructions due to Alexander, Whitehead, and others, they defy intuition and have caused mathematicians to change how they think about 3, 4, or higher dimensional topology. There will be lots of pictures, and the only prerequisites are basic topology and familiarity with the fundamental group.

Thursday, October 1st at 2:07 pm
Science Center 507