Geodesic currents and the geometry of surfaces
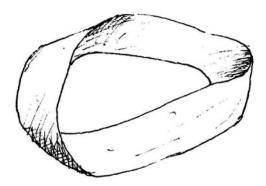
Moon Duchin
University of Michigan

Thursday, January 28, 2010
007 Kemeny Hall, 4:00 pm
(Tea 3:30 pm 300 Kemeny Hall)

Abstract

In this talk, I'll introduce Bonahon's space of geodesic currents, a remarkable construction that provides a unifying setting for the study of many kinds of geometric structure on topological surfaces. For instance, closed curves, foliations, and hyperbolic metrics on a surface of genus at least two can all be recognized as geodesic currents– which are formally just measures on a Mobius strip! Along the way I will introduce some of the geometric ingredients of Teichmuller theory and give some recent results in the field.

This talk should be accessible to graduate students.