

## Teichmüller Theory Seminar

## The Rips machine

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## Abstract

The Rips machine was introduced by Eliyahu Rips in about 1991 to study the action of groups on real trees. Bestvina-Feighn described the machine as processes made of geometric moves on band complexes. The Rips machine takes as input a band complex X with its underlying union of bands Y and converts Y into a normal form namely a finite disjoint union of components, each of which has one of the following four types: simplicial, surface, total and thin. We will discuss a "graph of spaces" like structure for thin component and a version of the Rips machine we constructed to study pairs of band complexes. Time permitting, we will discuss some possible applications.

Monday, 4 April 2016, 4pm Smith Hall 204