

Meeting: 1003, Atlanta, Georgia, SS 10A, AMS Special Session on Dynamics of Mapping Class Groups on Moduli Spaces, I

1003-20-576 **Dan Margalit*** (margalit@math.utah.edu), 155 S. 1440 East, Salt Lake City, UT 84111.

Weil-Petersson isometries.

In joint work with Jeff Brock, we give a new proof of the Masur-Wolf theorem that every isometry of Teichmüller space with the Weil-Petersson metric is induced by an element of the mapping class group. The new proof encompasses all possible cases, including three that were previously unknown. We give a combinatorial approach, translating the problem into a question about the pants complex. (Received September 23, 2004)