

1109-20-122

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(syurttas3@math.gatech.edu). *Computations in the mapping class group via global coordinates.*

We compute the invariant measured foliations and dilatation of a given a pseudo-Anosov mapping class using global coordinates on the boundary of Teichmüller space. This gives a linear time algorithm with respect to word length which we illustrate with Dynnikov Coordinates on the finitely punctured disk. This is joint work with Dan Margalit. (Received January 27, 2015)