Meeting: 1003, Atlanta, Georgia, SS 34A, AMS Special Session on Algorithmic Algebraic and Analytic Geometry, I

1003-30-934   **Thomas Gauglhofer** and **Klaus-Dieter B. Semmler*** (`klaus-dieter.semmler@epfl.ch`), Swiss Ferderal Institute of Technology, Department of Mathematics, SB-IGAT Station 8, CH-1015 Lausanne, Switzerland. *Trace coordinates of Teichmüller spaces of low genus.* Preliminary report.

In this lecture an approach to the Teichmüller space of Fuchsian groups based on polygons and trace coordinates is described. We illustrate the simple expressions of the action of the modular group in these coordinates. They give rise to reduction algorithms on Teichmüller space. (Received October 01, 2004)