

Teichmüller curves and theta functions

Martin Möller, Johann Wolfgang Goethe-Universität Frankfurt

We show how to use theta functions to cut out Teichmüller curves on Hilbert modular surfaces. This allows to compute Euler characteristics e.g. for Prym Teichmüller curves. As further consequence, we set up a basic theory of modular forms on Teichmüller curves, computing dimensions and growth of coefficients.