

# Harvard-M.I.T. Algebraic Geometry Seminar

## EULER CHARACTERISTICS OF TEICHMÜLLER CURVES IN GENUS TWO

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I will give formulas for the Euler characteristics of some special curves, called *Teichmüller curves*, in the moduli space of genus two curves. The idea of the calculation is to relate the Euler characteristics of these curves to the volumes of Hilbert modular surfaces on which they lie. As an application, we get formulas counting certain branched covers of elliptic curves by genus two curves. If time permits, I will discuss how the study of these curves leads to a calculation of the Lyapunov exponents of the Kontsevich-Zorich cocycle over moduli space.

Tuesday, April 11th

3:00 p.m.

MIT Room 2-190

<http://www-math.mit.edu/ags/>