

Mathematics Colloquium

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**Superstring Scattering
and Super Teichmüller
Theory**

Abstract: Superstring scattering amplitudes are integrals over the moduli space of Riemann surfaces. Their construction requires the interplay of conformal invariance with a less familiar symmetry in mathematics, which is 2-d local supersymmetry. This interplay produces supermoduli (or super Teichmüller) parameters, which have been the major obstruction in the last 20 years to an explicit construction of superstring scattering amplitudes. We show how to overcome this difficulty in genus 2, obtaining in this way new modular covariant forms.

Wednesday, April 19

**4:00-5:00 pm
204 Smith Hall**