

# MIT Department of Mathematics Number Theory Seminar

## THE GENERALIZED MOONSHINE CONJECTURE

SCOTT CARNAHAN

MIT

**Abstract:** In 1986, Norton formulated a generalization of the Monstrous Moonshine conjecture that was proposed by Conway and Norton and later proved by Borcherds. The generalized conjecture essentially asserts the existence of a distinguished function on the moduli space of elliptic curves with monster torsors, together with compatible representation-theoretic data at cusps. I will describe some recent progress on this conjecture that uses techniques from conformal field theory, Borcherds products for  $O(2, 2)$ , and equivariant Hecke operators.

THURSDAY, March 13

4:05 p.m.  
Room 4-149