Algebra Seminar

The rank of the Eisenstein ideal

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Abstract: In his landmark 1976 paper "Modular curves and the Eisenstein ideal", Mazur studied congruences modulo p between cusp forms and an Eisenstein series of weight 2 and prime level N. We use deformation theory of pseudorepresentations to study the corresponding Hecke algebra. We will discuss how this method can be used to refine Mazur's results, quantifying the number of Eisenstein congruences. Time permitting, we'll also discuss some partial results in the composite-level case. This is joint work with Carl Wang-Erickson.

Tuesday, October 3, 2017, 4:00 pm
Mathematics and Science Center: W306

Mathematics and Computer Science
Emory University