

# Philadelphia Area Number Theory Seminar

**Preston Wake**  
Institute for Advanced Study

## The Eisenstein ideal

**Abstract:** In his influential 1978 paper “Modular curves and the Eisenstein ideal”, Barry Mazur studied congruences modulo  $p$  between cusp forms and the Eisenstein series of weight 2 and prime level  $N$ . I’ll discuss some natural questions, and recent progress, raised by this work. Questions include: how many of these cusp forms are there? Does their arithmetic differ from forms that are not congruent to the Eisenstein series? What about non-prime levels? Or Hilbert modular forms?

Wednesday, December 12, 2018  
2:40 – 4:00 PM

Bryn Mawr College  
Department of Mathematics  
Park Science Center **328**

Tea and refreshments at 2:20PM in Park 361