

abstract

IAS/PRINCETON NUMBER THEORY SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

Let K be an imaginary quadratic field. Modular forms for K are related to the cohomology of arithmetic 3-manifolds. By using the Galois representations associated to such forms we produce an explicit tower of rational homology three spheres with certain properties, answering a question of Cooper. Along the way we give the world's most complicated proof that the modular curve $X_0(1)$ has genus zero. (Joint work with Nathan Dunfield)