

February 6, 2003

Matilde Marcolli, Max-Planck-Institut für Mathematik, Bonn

From noncommutative to arithmetic geometry

I will illustrate how noncommutative spaces appear naturally as 'boundary' of classical algebro-geometric moduli spaces, by considering the case of modular curves. I will also show that spectral triples, the fundamental object of Connes style noncommutative geometry, can be used to model the geometry of the fibers at arithmetic infinity in Arakelov geometry.