Intersection of Arithmetic Cycles and Automorphic Forms

Interpolation of Heegner points in Hida families

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Abstract

I will describe the construction of a family of big Heegner points for Hida's universal ordinary deformation of a modular Galois representation, and explain how this construction suggests two possible generalizations of the Gross-Zagier theorem: one to the Iwasawa theory of Hida families and one to modular forms of nontrivial nebentype.