GALOIS REPRESENTATIONS AND AUTOMORPHIC FORMS MINI-COURSE

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The Completed Cohomology of Arithmetic Groups
SpeakerFrank Calegari
Northwestern University; Member, School of Mathematics
Date: Wed, 10/13/2010 - 13:30 - 15:00
Location: S-101

The cohomology of arithmetic groups (with real coefficients) is usually understood in terms of automorphic forms. Such methods, however, fail (at least naively) to capture information about torsion classes in integral cohomology. We discuss a formalism -- completed cohomology -- which provides a way of studying the cohomology in a p-power congruence tower. We discuss (in particular) two advantages of the formalism: it allows for methods from non-commutative Iwasawa theory to be applied, and it is highly suggestive of a conjecture which predicts the precise growth of the mod-p cohomology in any arithmetic group up a p-power congruence tower, as well as more subtle conjectures regarding torsion in the cohomology of Shimura varieties.
event_id: 40248
Note:
(Continuation of the October 6 talk)

Calendar: 369
Video: http://video.ias.edu/galois/calegari2

terms:

- Galois Representations and Automorphic Forms