

Harvard-M.I.T. Algebraic Geometry Seminar

INTERSECTION COMPLEX ON THE BAILY-BOREL COMPACTIFICATION OF A SIEGEL MODULAR VARIETY

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In this talk, I will explain how to compute the trace of a power of the Frobenius endomorphism on the intersection cohomology of the Baily-Borel compactification of a Siegel modular variety, or rather how to reduce the problem to Kottwitz's calculation of the number of points of PEL Shimura varieties over finite fields. The main tools are :

- a theorem of Pink about the direct image in the Baily-Borel compactification of a local system on a Shimura variety;
- a new construction of the intermediate extension of a pure perverse sheaf as a weight truncation of the full direct image.

Tuesday, February 20th
3:00 p.m.
Harvard Science Center 507

<http://www-math.mit.edu/ags/>