

## **abstract**

SHIMURA VARIETIES AND TRACE FORMULA SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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In this talk, I will explain how the method originally developed by Ihara, Langlands and Kottwitz to compute the cohomology of a Shimura variety (use the Grothendieck-Lefschetz fixed point formula in positive characteristic to calculate the trace on the cohomology of a power of Frobenius at a good place times a Hecke operator trivial at that place, and then compare the result with Arthur's trace formula) applies to intersection cohomology of the Satake-Baily-Borel compactification of unitary Shimura varieties. I will also present applications (to the calculation of the L-function of the intersection complex and, time permitting, to the construction of Galois representations associated to (certain) automorphic representations).