

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research
Department of Mathematics*

COLLOQUIUM

Cohomological test vectors and arithmetic of automorphic L -functions

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Abstract

It was known to Euler that $\zeta(2k)$ is a rational multiple of π^{2k} , where ζ is the Euler-Riemann zeta function, and k is a positive integer. Deligne conjectured that similar results hold for motives over number fields. Algebraic automorphic representations of $GL(n)$, as defined by Clozel, correspond to motives (at least conjecturally). I will explain an analogue of Deligne's conjecture for these algebraic automorphic representations, as well as some recent progresses on it. The Archimedean theory of cohomological representations and cohomological test vectors will also be explained, as they play a key role in the proof.

Date: April 25, 2019 (Thursday)

Time: 4:00 - 5:00pm

Venue: Room 210, Run Run Shaw Bldg., HKU

All are welcome