THE UNIVERSITY OF HONG KONG

Institute of Mathematical Research
Department of Mathematics

Number Theory Seminar

Stability of elliptic Fargues-Scholze L-packets

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Abstract

The local Langlands correspondence conjecturally partitions the irreducible representations of a p-adic group into the so-called L-packets. Such a partition is conjecturally to be characterized by the stability condition, which is proven in many cases (when a construction of the local Langlands correspondence for certain representations is available) using the theory of endoscopy. In this talk, we will show that for elliptic L-parameters, the construction of Fargues-Scholze satisfies the stability condition (without essential use of endoscopy). Using a formula of Hansen--Kaletha--Weinstein, we will reduce the problem of stability to showing equi-distribution properties of the weight multiplicities of highest weight representations of an algebraic group. Our proof of equi-distribution properties might be of independent interest.

Date:	May 6, 2025 (Tuesday)
Time:	3:00 – 4:00 pm
Venue:	ZOOM: https://hku.zoom.us/j/ Meeting ID: 926 2044 8077 Password: 119908

All are welcome