Seminar/Talk

PGL2-character varieties and Langlands duality over finite fields

Tommaso Scognamiglio
IMJ-PRG

Host: Tim Browning

For a Riemann surface X and a complex reductive group G, G-character varieties are moduli spaces parametrizing G-local systems on X. When G=GLn, the cohomology of these character varieties have been deeply studied and under the so-called genericity assumptions, their cohomology admits an almost full description, due to Hausel, Letellier, Rodriguez-Villegas and Mellit. An interesting aspect is that the geometry of these varieties is related to the representation theory of the finite group GLn(Fq).We expect in general that G-character varieties should be related to (Fq)-representation theory, where (Fq) is the Langlands dual.In the first part of the talk, I will recall the results concerning GLn.In the second part, I will explain how to generalize some of these results when G=PGL2. In particular, we will see how to relate PGL2-character varieties and the representation theory of SL2(Fq). This is joint work with Emmanuel Letellier.

Thursday, January 16, 2025 01:00pm - 03:00pm
Office Bldg West / Ground floor / Heinzel Seminar Room (I21.EG.101)

This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.
Please find a schedule of the ISTA Shuttle on our webpage:
https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.