Seminar/Talk

Limits of the diagonal Cartan subgroup in SL(n,R) and SL(n, Q_p)

Arielle Leitner
Weizmann Institute of Science

Host: Timothy Browning

A conjugacy limit group is the limit of a sequence of conjugates of the positive diagonal Cartan subgroup, C \leq SL(n) in the Chabauty topology. Over R, the group C is naturally associated to a projective n-1 simplex. We can compute the conjugacy limits of C by collapsing the n-1 simplex in different ways. In low dimensions, we enumerate all possible ways of doing this. In higher dimensions we show there are infinitely many non-conjugate limits of C. In the Q_p case, SL(n,Q_p) has an associated p+1 regular affine building. (We'll give a gentle introduction to buildings in the talk). The group C stabilizes an apartment in this building, and limits are contained in the parabolic subgroups stabilizing the facets in the spherical building at infinity. There is a strong interplay between the conjugacy limit groups and the geometry of the building, which we exploit to extend some of the results above. The Q_p part is joint work with Corina Ciobotaru and Alain Valette.

Thursday, December 10, 2020 02:00pm - 03:00pm
https://mathseminars.org/seminar/AGNTISTA

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.