

INVARIANT RANDOM SUBGROUPS AND LATTICES

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An Invariant Random Subgroup (IRS) in a locally compact group G is a conjugacy invariant probability measure on the space of closed subgroups of G . Every lattice is associated with an IRS. The (compact) G -space $\text{IRS}(G)$ of all such measures is a useful tool to analyse its special (lattices) points, mainly in order to study their asymptotic properties. In the other direction, various results from the theory of lattices can be extended to the framework of general IRS. In the mini course, I will elaborate on these approaches in the case where G is an algebraic group over a local field.

The course is based mainly on my joint work with Abért, Bergeron, Biringer, Nikolov, Raimbault and Samet ("the 7 Samurai"), where this all started, but I will also discuss more recent developments.