

## Presentation

The Neretin group of a regular tree is defined as a group of “piecewise automorphisms” on the boundary. It can be endowed with a locally compact topology, and has no lattices. It is a natural question to ask whether it has IRSs beyond the trivial ones. It is likely that a proof that IRSs “parabolic” subgroups of the Neretin groups (subgroups fixing a point on the boundary of the tree) can be classified using a modification of an argument for similar groups in the discrete case, and we hope that this might help proving that there are nontrivial IRSs in the Neretin groups.

## Lecture plan

- The Neretin group, and why it has no lattices;
- Groups acting on trees which have no lattices;
- “Parabolic” subgroups and their IRSs: a continuous version of a result of Thomas-Tucker-Drob?

## References

- Łukasz Garncarek, Nir Lazarovich, *The Neretin groups*, [Arxiv version](#).
- Uri Bader, Pierre-Emmanuel Caprace, Tsachik Gelander, Shahar Mozes, *Simple groups without lattices*, Bull. LMS 2012, [Arxiv version](#).
- Adrien le Boudec, *Groups acting on trees with almost prescribed local action*, Comm. Math. Helv. 2016, [Arxiv version](#)
- Simon Thomas, Robin Tucker-Drob, *Invariant random subgroups of strictly diagonal limits of finite symmetric groups*, Bull. LMS 2014, [Arxiv version](#).

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