

Entropy on totally disconnected locally compact groups

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We consider the topological and the algebraic entropy for continuous endomorphisms of totally disconnected locally compact groups. Indeed, in this setting the formulas defining these entropies can be simplified avoiding the use of Haar measure.

We discuss some limit-free formulas in the case of automorphisms. They can be extended to all continuous endomorphisms in the compact case for the topological entropy and in the discrete case for the algebraic entropy.

The main application of the limit-free formulas is a connection to Willis' scale function for topological automorphisms of totally disconnected locally compact groups.