Research description

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The central subject of my area of research are the totally disconnected and locally compact groups, in particular their discrete cohomology. This cohomology theory turns out to be closely related to the structure of t.d.l.c. groups. The general framework of the rational discrete cohomology theory is more or less in analogy to the cohomology theory of a discrete group and Galois cohomology of profinite groups. So many well-known statements about discrete groups find an analogue in the context of totally disconnected locally compact groups. E.g. we extend the characterization of finite groups by FP_1-property and the Stallings' structure theorem. Moreover, the rational discrete cohomology is in close connection to the classifying space of a t.d.l.c. group.