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FIXED POINTS, RAMSEY THEOREMS, CONCENTRATION OF MEASURE, AND SUBMEASURES

I will survey connections between, on the one hand, fixed point theorems for actions of large groups and, on the other hand, the Fraisse limit construction from model theory, Ramsey theorems, concentration of measure, and "geometry of submeasures." Groups that will be of interest to us are closed subgroups of the group of all permutations of natural numbers and groups of the form $L_0(\phi, K)$, where ϕ is a submeasure and K is a locally compact abelian group.