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Random subgroups of Thompson's group F

There are a number of possible notions of constructing k-generator subgroups "at random" from a fixed group G. Given such a process, we can try to understand properties that a random subgroup has. For random subgroups of Thompson's group F, a number of interesting phenomena occur which are not present in other known examples. For example, there are positive densities of many isomorphism classes of k-generator subgroups, rather than there just being one isomorphism class of density 1. I will also describe a persistence phenomenon seen in Thompson's group, where some isomorphism classes of subgroups are present with positive density in the space of k-generator subgroups for all k larger than some K, with respect to one of the natural processes for constructing subgroups at random.

This is joint work with Murray Elder, Andrew Rechnitzer and Jennifer Taback.