

## A January 2005 invitation to random groups

Yann Ollivier

**Abstract.** Random groups provide a rigorous way to tackle such questions as "What does a typical (finitely generated) group look like?" or "What is the behavior of an element of a group when nothing particular happens?"

We review the results obtained on random groups as of January 2005. We give proper definitions and list known properties of typical groups. We also emphasize properties of random elements in a given group. In addition we present more specific, randomly twisted group constructions providing new, "wild" examples of groups.

A comprehensive discussion of open problems and perspectives is included.

**2000 Mathematics Subject Classification:** 20F65, 20P05, 60B99, 20F05, 20F67.