What does a random permutation group look like?
This talk will start with a brief survey of how we might go about counting subgroups of the symmetric group $S_n$, and talk about what is known about “most” subgroups.

To tackle the general problem, it would clearly be helpful to know how many subgroups there are. An elementary argument gives that there are at least $n^2/16$ subgroups, and it was conjectured by Pyber in 1993 that up to lower order error terms this is also an upper bound. This talk will present an answer to Pyber's conjecture.

This is joint work with Gareth Tracey.