

## Lie theory without groups

Andrei Okounkov

*Columbia/Skoltech/HSE*

okounkov@math.columbia.edu

Group theory and, in particular, Lie group theory is central to many areas of mathematics and to many applications. Lie theory is a masterpiece of a theory and it may feel nearly complete. Because of this, and also because of the demand from applications, many Lie theorists have been exploring new worlds, in which groups yield the center stage to other geometric and algebraic structures.