

1162-00-7

**Andrei Okounkov\*** ([okounkov.columbia@gmail.com](mailto:okounkov.columbia@gmail.com)). *Lie theory without groups*.

Lie theory, which deals with smooth groups of transformations, is one of the cornerstones of mathematics and has great importance for both theory and applications. It is also visibly limited, as the globe of Lie groups has been explored and inhabited. However, in recent years, some new geometric and algebraic structures have been recognized as being as good as Lie groups in every respect, including e.g. their contribution to the supply of special functions. My goal in this talk will be to explain where these new avenues of Lie theory lead. (Received June 29, 2020)