

EXPANSIONS, LIE ALGEBRAS, AND INVARIANTS.

JULY 1-31, 2019

ORGANIZING COMMITTEE AND SCIENTIFIC COMMITTEE

- Anton Alekseev, Section of Mathematics, University of Geneva, Anton.Alekseev@unige.ch.
- Dror Bar-Natan, Department of Mathematics, University of Toronto, drorbn@math.toronto.edu, <http://www.math.toronto.edu/drorbn>, contact organizer.
- Roland van der Veen, Mathematisch Instituut, Universiteit Leiden, roland.mathematics@gmail.com, <http://www.rolandvdv.nl/>.

ONE PARAGRAPH SUMMARY

Our workshop will bring together a number of experts working on “expansions” and a number of experts working on “invariants” in the hope that the two groups will learn from each other and influence each other. “Expansions” are solutions of a certain type of intricate equations within graded spaces often associated with free Lie algebras; they include Drinfel’d associators, solutions of the Kashiwara-Vergne equations, solutions of various deformation quantization problems, and more. By “invariants” we refer to quantum-algebra-inspired invariants of various objects within low dimensional topology; these are often associated with various semi-simple Lie algebras. The two subjects were born together in the early days of quantum group theory, but have to a large extent evolved separately. **We believe there is much to gain by bringing the two together again.**