

CONTINUUM QUANTUM GROUPS

ANDREA APPEL

Abstract: In this talk, I will introduce a new class of infinite-dimensional Lie algebras with rather exotic and interesting features, such as a continuum root system with no simple root or exclusively quadratic Serre relations. The role of the Cartan matrix is here played by a one-dimensional topological datum, called, rather poetically, a *topological quiver*. Their quantum analogues are then obtained by geometric methods, relying on the Hall algebras of the category of locally constant sheaves over the corresponding topological quiver. This is based on joint works with T. Kuwagaki, F. Sala, and O. Schiffmann.