Groups, Logic, and Computation. GAGTA-2025

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Automorphisms of Twisted Chevalley Groups.

June 6–13, 2025

Abstract:

Automorphisms and isomorphisms of Chevalley groups over almost arbitrary commutative rings are by now understood. The next step in the algebraic classification of algebraic-type groups over commutative rings is the study of automorphisms (and isomorphisms) of twisted Chevalley groups. These groups form a natural generalization of classical Chevalley groups; for example, they include unitary linear groups over rings with involution.

In this talk, we will present recent progress in this direction. In particular, we are now close to a complete description of automorphisms of twisted Chevalley groups over arbitrary commutative rings with 1/2.