

# Automorphism group schemes on Kantor pairs related to associative algebras with involution.

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## Abstract.

In the same way Jordan pairs and Jordan triples are a generalization of Jordan algebras which coordinatize 3-graded Lie algebras, Kantor pairs and Kantor triples are a generalization of Structurable algebras which coordinatize 5-graded Lie algebras. One example of Kantor pairs and Kantor triples are those which can be constructed from structurable algebras (Jordan algebras, tensor product of Hurwitz algebras, associative algebras with involution...).

Automorphism group schemes of algebraic structures are interesting because they carry information structure of them such as their gradings or their decomposition as tensor products. The description of automorphism group schemes of Jordan and Kantor Systems has been carried out in the past in different papers (see [1, 2, 3]). The purpose of this talk is to describe the automorphism group schemes of those Kantor Pairs related to associative algebras with involution.

## References

- [1] D. Aranda-Orna, and A. Daza-Garcia, *Automorphism group schemes of special simple Jordan pairs of types I and IV*, J. Algebra 679 (2025) 67–85.
- [2] D. Aranda-Orna, and A.S. Córdova-Martínez *Fine gradings on Kantor systems of Hurwitz type*, Linear Algebra Appl. 613 (2021) 201–240.
- [3] D. Aranda-Orna, *Fine gradings on simple exceptional Jordan pairs and triple systems.*, J. Algebra 491 (2017) 201–240.