On polynomial identities of (super)algebras with (super)involution

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In the positive solution of the Specht's problem for algebras with involution, given by Aljadeff, Giambruno and Karasik in [1], a relevant role has been played by - graded polynomial identities of finite dimensional superalgebras with superinvolution. In this talk we consider block-triangular matrix algebras related to any sequence of finite dimensional -simple superalgebras with superinvolution. These -simple superalgebras are also involved in determining the exact value of the exponent for finitely generated superalgebras with super involution [2]. We review the results on the polynomial identities of some classes of algebras with involution. Furthermore we show that every minimal affine variety of superalgebras with superinvolution is generated by one of the block triangular matrix algebras we introduced.

References

[1] E. Aljadeff, A. Giambruno, Y. Karasik Polynomial identities with involution, superinvolutions and the Grassmann envelope, Proc. Amer. Math. Soc. 145 (2017), no. 5, 1843–1857.

[2] A. Ioppolo The exponent for superalgebras with superinvolution, Linear Algebra and its Applications Amer. Math. Soc. 555 (2018), 1–20.