

**POLYNOMIAL IDENTITIES FOR THE JORDAN ALGEBRA OF
UPPER TRIANGULAR MATRICES OF ORDER 2**

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ABSTRACT. Let J be the Jordan algebra of upper triangular matrices of order 2, over a field of characteristic different from 2, with the Jordan product induced by the usual associative product. In this work, we describe the set I of all polynomial identities of J and a linear basis for the corresponding relatively free algebra. Moreover, if the field is infinite we prove that I has the Specht property. In other words I , and every T-ideal containing I , is finitely generated as a T-ideal.

This is a joint work with Plamen Kochloukov and Mateus E. Salomão.

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