Identities of matrix algebras

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We will consider various types of identities of matrix algebras. Trace identities are a generalization of polynomial identities, and every trace identity is a consequence of the Cayley-Hamilton identity by the second fundamental theorem of matrix invariants. We will show that this is no longer the case for quasi-identities, while it holds for functional identities.

This talk will be based on a joint work with M. BREŠAR (University of Ljubljana) and C. PROCESI (University of Rome).