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Jordan quadruple systems

In this joint work with Prof. Murray R. Bremner we define Jordan quadruple systems by the polynomial identities of degrees 4 and 7 satisfied by the Jordan tetrad $a,b,c,d = abcd + dcba$ as a quadrilinear operation on associative algebras and find special identities in degree 10. We also introduce four infinite families of finite dimensional Jordan quadruple systems, and construct the universal associative envelope for the smallest system in each family.