

Session 18 - Contributions to the theory of Binary Lie algebras

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In 1955 A. I. Malcev introduced the concept of Binary Lie algebras as tangent algebras of analytic dissociative loops (i.e. every two elements of the loop generate a subgroup) and, in particular, the concept of tangent algebras of analytic Moufang loops (now known as Malcev algebras). Let us denote by J_n the variety of anticommutative algebras such that the jacobian of length n is zero. For example, J_3 is a Lie algebra, i.e. $J(x, y, z) = 0$. In our talk we will discuss some properties of J_4 - Binary Lie algebras and J_5 - Malcev algebras. Our talk is based on work in progress jointly with A.Grishkov, I.Kashuba. M.Rasskazova and I.Shestakov.

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