



## ALGEBRA DAY ON THE HUDSON

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*Algebraic exponential map and cubic forms.*

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*Abstract:*

In 1955 A. Malcev introduced the notion of analytic diassociative loops and its connection with binary-Lie algebras, using classical exponential map. Later, in 1963 Yu. Manin noted that cubic form admits a structure of algebraic diassociative loop. Recall, that a loop is a diassociative if every two elements generate a subgroup. In this talk we discuss the last progress in the theory of analytic and algebraic diassociative loops. In particular, we study the question of existence algebraic exponential map between Lie algebra and correspondent algebraic group.