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On the rationality of multiloop algebras (after B. Margaux)

The celebrated affine Kac-Moody Lie algebras, which a priori are defined by generators and relations, can be given a concrete and explicit realization in terms of loop algebras. Similarly results apply to Lie tori with the use of multiloop algebras. The "loop" realization imposes, out of necessity, the existence of enough roots of unity in the base field. The talk will explain, by descent consideration, why (and exactly when) this assumption is superfluous. The "trialitarian" affine algebra $G_2^{(3)}$ provides such an example (a known fact explicitly and constructively shown to hold by Y. Yoshii, and also E. Neher - Z. Chang, with the aid of octonion algebras).