

## Integration of curved homotopy Lie algebras

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The integration procedure which associates an infinity-groupoid to a (complete) homotopy Lie algebra dates back to Hinich and Getzler. Recently, a new method was developed by Robert-Nicoud and Vallette: it relies on the representation of the Getzler functor with a universal object and the use of the recent progresses of the operadic calculus. The goal of this talk is to generalize their procedure to curved homotopy Lie algebras, which are this time to be encoded by curved cooperads. This is a new type of algebraic structures which come naturally equipped with infinite summations without an underlying topology. We will explain how to integrate this new type of objects, generalizing the above cases, and their relationship with rational homotopy theory and deformation theory. In particular, they provide us with rational models for non-pointed nilpotent spaces.

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