

Higher Lie theory

Wednesday, October 27, 2021 3:30 PM (50 minutes)

This talk will cover the recent complete treatment of the long-term research programme between Lie theory, deformation theory, and rational homotopy theory that originates in the works of Quillen, Deligne, and Sullivan. I will settle the integration theory of homotopy Lie algebras with algebraic infinity-groupoids that give rise to explicit higher Baker—Campbell—Hausdorff formulas. A direct application will provide us with a new form of rational homotopy theory which holds in a much more general context than the previous ones. (Joint work with Daniel Robert-Nicoud available at [ArXiv:2010.10485](https://arxiv.org/abs/2010.10485).)

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