Oberseminar Geometrie

13th of Juli 2022 at 2:15pm CEST/CES

Room 40.03.003 and zoom
`https://uni-wuerzburg.zoom.us/j/96587647828?pwd=ZjliUHpkd3J2cDlpVFBYRmlrYkRMZz09`

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L_∞-algebroids of higher groupoids in tangent categories

I will explain a method of differentiation of higher groupoids to their infinitesimal counterparts. Higher groupoid objects in a category $\mathcal{C}$ with a Grothendieck pretopology were first introduced by Henriques and Zhu in terms of Kan simplicial objects in $\mathcal{C}$. In 2006, Ševera has argued that the L_∞-algebroid of a higher Lie groupoid $\mathcal{G}$ is given by the inner hom in the category of simplicial supermanifolds from the nerve of the pair groupoid of $\mathbb{R}^{0|1}$ to $\mathcal{G}$. Using the language of categorical ends, I will generalize this to groupoids in categories with an abstract tangent functor (in the sense of Rosický) and a Grothendieck pretopology. If time permits, I will discuss possible applications to geometric deformation theory. This is joint work with Christian Blohmann.

Invited by Madeleine Jotz Lean