



Du
19
NOV.
2014

16h00
-
17h00

RÉGA

Claudia Scheimbauer "Higher categories, factorization homology, and fully extended TFTs"

IHP
Salle 314

INSCRIPTION

Claudia Scheimbauer (ETH)
Higher categories, factorization homology, and fully extended TFTs

Factorization algebras, first introduced by Beilinson and Drinfeld in an algebro-geometric context, are algebraic structures encoding the structure of observables of a quantum field theory. (Homotopy) algebras and (pointed) bimodules over them can be viewed as factorization algebras on the real line $\mathbb{R}$ which are locally constant with respect to a certain stratification. Moreover, drawing upon tools from higher algebra, Lurie proved that locally constant factorization algebras on $\mathbb{R}^n$ are equivalent to E_n -algebras. Starting from these two facts I will explain how to model the Morita category of E_n -algebras as an (∞, n) -category. Every object in this category, i.e. any E_n -algebra A , is "fully dualizable" in the sense of Lurie and thus gives rise to a fully extended TFT by the cobordism hypothesis of Baez-Dolan-Lurie. I will explain how this TFT can be explicitly constructed by (essentially) taking factorization homology with coefficients in the E_n -algebra A .

URL of the page: https://www.ihp.fr/fr/agenda/claudia-scheimbauer-higher-categories-factorization-homology-and-fully-extended-tfts&is_pdf=true



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HORAIRES

L'institut :

- lundi au vendredi de 8h30 à 18h,
- fermé les jours fériés.

Le musée - Maison Poincaré :

- lundi, mardi, jeudi et vendredi de 9h30 à 17h30,
- samedi de 10h à 18h,
- fermé le mercredi et le dimanche.