Christina Vasilakopoulou * Université Libre de Bruxelles

Hopf categories as Hopf monads in enriched matrices

Hopf categories, as many-object generalizations of Hopf algebras, were introduced in [1]. In this talk, we present a framework for viewing them as Hopf monads in the bicategory of \mathcal{V} -matrices [2]. We also explore a double categorical perspective for such structures, involving a notion of a Hopf monad in fibrant double categories a.k.a. proarrow equipments.

References:

- E. Batista, S. Caenepeel, J. Vercruysse, Hopf categories, Algebras and Representation Theory 19:5 (2016) 1173–1216.
- [2] R. Betti, A. Carboni, R. Street, E. Walters, Variation Through Enrichment, Journal of Pure and Applied Algebra 29 (1983) 109–127.

^{*}Joint work with Mitchell Buckley, Timmy Fieremans and Joost Vercruysse.