

## Truncated Affine Rozansky-Witten Models as Extended TQFTs (T: 50mn + Q: 10mn)

*mercredi 11 mai 2022 11:30 (1 heure)*

Mathematicians formulate fully extended  $d$ -dimensional TQFTs in terms of functors between a higher category of bordism and suitable target categories. Furthermore, the cobordism hypothesis identifies the basic building blocks of such TQFTs. In this talk, I will discuss Rozansky Witten models with affine targets, also known as 3-dimensional topologically twisted  $N=4$  theories of free hypermultiplets. I will show how in this simple example the cobordism hypothesis can be systematically applied to explicitly construct the (infinite-dimensional) state spaces of this theory. Furthermore, a commutative Frobenius algebra will be identified that describes the extended TQFT restricted to circles and bordism between them (Based on work with Nils Carqueville and Daniel Roggenkamp).

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**Classification de Session:** Morning chair: TBC