Deformationsquantisierung

Am 30. 10. 2020 spricht um 14 Uhr c.t.

`https://bbb.durates.net/b/ste-2va-uez`

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Topological quantum field theory and the Reshetikhin-Turaev construction

A key feature that one stumbles across while studying topological quantum field theory (TQFT) is the fact that every n-dimensional TQFT gives a representation of the mapping class group of all compact $(n-1)$-dimensional manifold. As for the special case of the 2-dimensional torus such a representation is also given by a modular tensor category (MTC), the question arises whether 3D TQFT and MTC are connected. This connection is given by the Reshetikhin-Turaev construction which associates a 3D TQFT to every MTC. In this talk, we will give an introduction to the concept of TQFT and discuss how we can obtain invariants of 3-manifolds using an MTC. We then outline how to obtain a full TQFT from these invariants.

gez. Stefan Waldmann