DANISH QUANTUM FIELD THEORY MEETING 2025

August 13 - 14
University of Southern Denmark (Odense)

Contribution ID: **5**   Type: **not specified**

Perturbative TQFTs

Wednesday 13 August 2025 13:30 (45 minutes)

Topological Quantum Field Theories (TQFTs) were axiomatized by Atiyah as symmetric monoidal functors whose domain is a cobordism category. On the other hand, recently developed methods allow for perturbative quantization of field theories on manifolds with boundary. I will review these concepts and then sketch a research program to build a bridge between them, discussing the example of Chern-Simons theory in some detail. One of the goals of this activity is to open new avenues towards the Asymptotic Expansion Conjecture.

Presenter: WERNLI, Konstantin