



EINLADUNG

im Rahmen des Seminars für Mathematische Physik
(Joint TU/UV Theory Seminar)

zum Vortrag

von

Donald Ray Youmans

University of Geneva

über

„Two-dimensional BF theory as a CFT“

Abstract:

We present a construction of 2d TCFTs via gauge fixing topological gauge theories: Two-dimensional abelian BF theory is an example of a topological gauge theory. Imposing the Lorenz gauge-fixing condition introduces an auxiliary geometric datum in form of a metric. We will show that the theory becomes topological conformal, i.e. it depends only on the conformal structure of the introduced metric. Moreover, the stress-energy tensor is Q-exact (hence vanishes in Q-cohomology and therefore on physical states). The Q-primitive of the stress-energy tensor can be used to deform the model. In particular, the non-abelian theory can be seen as a deformation of the abelian one in the space of TCFTs. The former shares many features of a logarithmic CFT, such as the appearance of logarithmic singularities in OPEs. Notably, the presence of infinite Jordan cells of the Hamiltonian lead to vertex operators.

Zeit: Dienstag, 03.12.2019, 13.45 h

Ort: TU Wien - Wiedner Hauptstraße 8 - **Red Area**, 7th floor,
Seminar Room (DC 07 A15)

gez.: S. Fredenhagen, D. Grumiller, C. Zwickel, T. Schimannek