

Seminarankündigung

Deformationsquantisierung

Am 29. 11. 2019 spricht um 14 Uhr c.t.

Seminarraum SE 30

RICCI FLOW FROM EUCLIDEAN ALGEBRAIC QUANTUM FIELD THEORY

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The perturbative approach to nonlinear Sigma models and the associated renormalization group flow are discussed within the framework of Euclidean algebraic quantum field theory and of the principle of general local covariance. In particular we show in an Euclidean setting how to define Wick ordered powers of the underlying quantum fields and we classify the freedom in such procedure by extending to this setting a recent construction of Khavkine, Melati, and Moretti for vector valued free fields. As a by-product of such classification, we provide a mathematically rigorous proof that, at first order in perturbation theory, the renormalization group flow of the nonlinear Sigma models is the Ricci flow.

gez. Stefan Waldmann