E I N L A D U N G

im Rahmen des Seminars für Mathematische Physik

(Joint TU/UV Theory Seminar)

zum Vortrag

von

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über

„Tensionless strings :
A perspective from the worldsheet"

Abstract:
I will be speaking about the construction of the tensionless limit of closed bosonic string theory in the covariant formulation in the light of Galilean conformal symmetry that rises as the residual gauge symmetry on the tensionless worldsheet. I will show how the analysis of the fundamental tensionless theory is related to the tensionless limit that is viewed as a contraction of worldsheet coordinates. The connection to massless higher spin states can be seen naively. This analysis can be extended to the closed superstring to obtain the Super Gallilean Conformal Algebra (SGCA), that can be realised in two distinct ways : the Homogenous and the Inhomogenous SGCA. I will also comment on the hermiticity properties of fermions in case of the Inhomogeneous tensionless superstring. We will see that the analysis of the quantum regime uncovers interesting physics. The degrees of freedom that appear in the tensionless string are fundamentally different from the usual string states. Through a Bogoliubov transformation on the worldsheet, one can link the tensionless vacuum to the usual tensile vacuum. As applications, I will discuss how tensionless strings can be connected to Hagedorn Physics and Ambitwistors.

Zeit: Dienstag, 29.01.2019, **13:45**

Ort: Fakultät für Physik, Erwin-Schrödinger-Hörsaal,
Boltzmanngasse 5

gez.: S. Fredenhagen, D. Grumiller, D. Erkinger, R. Wutte