



EINLADUNG

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

zum Vortrag

von

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über

„Conformal Carrollian Field Theories on null Manifolds“

Abstract:

Conformal Carrollian groups are known to be isomorphic to Bondi-Metzner-Sachs (BMS) groups that arise as the symmetries of the field theories defined on null manifolds. We construct explicit examples of Conformal Carrollian field theories (CCFTs) as Ultra Relativistic limits of relativistic conformal theories where even in dimensions $d = 4$, there is an infinite enhancement of the underlying symmetry structure. Then, we propose an action for a simple interacting CCFT viz. Carrollian scalar electrodynamics using the Helmholtz conditions. This action is the first example for an interacting CCFT. We show that the proposed action respects the finite and infinite conformal Carrollian symmetries in $d = 4$. The Poisson brackets for the corresponding conserved charges confirm that infinite Carrollian conformal algebra is satisfied even at the level of charges.

Zeit: Dienstag, 14.01.2020, 13.45 h

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

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