Gemeinsame Veranstaltung von
Humboldt-Universität zu Berlin, Institut für Physik
(Theorie der Elementarteilchen / Computerorientierte Theoretische Physik)
DESY, Zeuthen

SEMINAR
Feldtheorie auf dem Gitter und Phänomenologie der Elementarteilchen

Am Montag, dem **9. November 2009, um 16:00 Uhr s.t.** spricht

Tomasz Korzec

Humboldt Universität

zum Thema

The structure of baryons from the lattice

Abstract

I will present a lattice calculation of generalized form factors (GFFs) of the nucleon. The lowest order GFFs coincide with the well known Dirac, Pauli and axial form factors which contain information about the size, magnetization and axial charge of the nucleon. At zero momentum transfer the GFFs reduce to moments of parton distributions and information about the fraction of spin or momentum carried by the quarks in the hadron is obtained. Besides the determination of the GFFs and their momentum dependence, I will also discuss the non-perturbative renormalization of the involved composite operators and the extension of the calculation to spin 3/2 baryons.

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(Lageplan: `http://linde.physik.hu-berlin.de/images/lageplan_neu.gif`)

Web: `http://latticeseminar.desy.de/`