

HK 1: Eröffnung und Plenarvortrag

Zeit: Montag 14:15–16:00

Raum: A

Begrüßung durch den örtlichen Tagungsleiter — VOLKER METAG — Universität Gießen	Mo 14:15	A	Spin structure of hadrons from lattice QCD — ●PHILIPP HÄGLER for the QCDSF-UKQCD-Collaboration — Institut für Theoretische Physik T39, Physik-Department der TU München, James-Franck-Strasse, D-85747 Garching
Grußwort des Oberbürgermeisters der Stadt Gießen — HEINZ-PETER HAUMANN	Mo 14:25	A	The decomposition of the spins of hadrons in terms of spin and orbital angular momentum degrees of freedom of quarks and gluons is still one of the most intriguing aspects of particle physics. In this talk, we present recent results on the hadron spin structure based on calculations from first principles in lattice QCD. Concentrating on main issues which are closely related to the concept of generalised parton distributions (GPDs), we give an update on orbital angular momentum and transverse spin densities of quarks in the nucleon and show first results on the spin structure of the pion. The lattice simulation results are, whenever feasible, extrapolated to the physical limit using results from chiral perturbation theory. We find strong correlations between spin, orbital angular momentum and coordinate degrees of freedom which provide highly valuable insights into the rich and complex spin structure of hadrons. Based on these results, we predict large asymmetries for certain semi-inclusive deep inelastic scattering experiments, which may be confirmed by measurements at JLab, COMPASS/CERN and HERMES/DESY.
Grußwort des Vizepräsidenten der Justus-Liebig-Universität Gießen — KARL-HEINZ KOGEL	Mo 14:35	A	
Ansprache des Präsidenten der Deutschen Physikalischen Gesellschaft — EBERHARD UMBACH — Universität Würzburg	Mo 14:45	A	
Erläuterungen zum Tagungsablauf — VOLKER METAG — Universität Gießen	Mo 15:05	A	
Plenarvortrag	HK 1.1	Mo 15:15	A