



PHYSIKALISCHES KOLLOQUIUM

des Fachbereichs Physik
der Johann Wolfgang Goethe-Universität Frankfurt

Mittwoch, den 02.12.2015, 16 Uhr c.t.
Großer Hörsaal, Raum _0.111,
Max-von-Laue-Str. 1



Dr. Elke-Caroline Aschenauer

Brookhaven National Laboratory,
Upton, New York,
USA

"The Spin of the Proton – Why we should care"

The question after the individual parton (quarks and gluons) contributions to the spin of the nucleon is even after 20 years of experimental efforts not yet solved. After several precise measurements in polarized deep inelastic scattering it is clear, that the spin of the nucleon cannot be explained by the contribution of the quarks alone. The talk will review the status of the field and how new results from polarized proton-proton collisions at RHIC help to get closer to unravel the puzzle, where the spin of the proton is hidden. It will further be demonstrated that studying the spin of the proton is an excellent tool to study the dynamic structure of the proton and to get tomographic pictures in momentum and coordinate space of the proton. The talk will be summarized by outlining the unique opportunities building a polarized electron-ion collider will present to the field.

Die Dozenten der Physik

local host: Prof. Alberica Toia, Alberica.Toia@cern.ch