

FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING

MLL-KOLLOQUIUM

Donnerstag, 26.11.2015, 16¹⁵ Uhr

Seminarraum 127, TUM, Physik II, Erdgeschoss/Nord
Treffen zum gemeinsamen Kaffee 16 Uhr

Dr. Jorge Segovia

(TU München, Physik Department T30f)

Elastic and transition form factors of nucleon resonances in the Dyson-Schwinger equation approach

The elastic and transition form factors of nucleon excited states provide vital information about their structure and composition. They are a measurable and physical manifestation of the nature of the hadrons' constituents and the dynamics that binds them together. In this respect, two emergent phenomena of Quantum Chromodynamics (QCD), confinement and dynamical chiral symmetry breaking, appear to play an important role. Dyson-Schwinger equations (DSEs) have been established as a nonperturbative quantum field theoretical approach for the study of continuum strong QCD which is able to connect such emergent phenomena with the behaviour of form factors of hadrons. In this talk I will present examples of the contemporary application of DSEs to the study of elastic and transition form factors of nucleon resonances, paying particular attention to the transition of the nucleon to nucleon's first radial excitation (the Roper resonance) and its first spin excitation (the Delta resonance).

gez. Peter Thirolf
Tel. 289-14064

gez. Norbert Kaiser
Tel. 289-12367