

FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING

Garching Maier-Leibnitz-Kolloquium

Donnerstag, 16.01.2025, 16¹⁵ Uhr

**NOTE: The Kolloquium will be exclusively given online via ZOOM!
See ZOOM link below**

Dr. Raffaele del Grande

(Institute for Nuclear Physics, Czech Technical University, Prague)

Three-Body Correlation Studies using Femtoscopy at the LHC

Three-body forces in nuclear physics account for most effects that cannot be described by two-body interactions in systems involving three, four, or more particles. For hyperons and nucleons, such forces have not been directly measured due to the challenges of scattering experiments with unstable hyperons and the relatively limited data set for hypernuclei compared to the precision achieved for regular nuclei. In this talk, I will explore the potential to measure three-body interactions involving hyperons and nucleons using the femtoscopy method at the LHC. I will discuss the experimental approach and review recent results from phenomenological calculations, highlighting the extent to which hyperon-nucleon-nucleon interactions, which remain poorly understood, can be measured in the coming years.

(Exclusive) online access via ZOOM:

<https://lmu-munich.zoom.us/j/98457332925?pwd=TWc3V1JkSHpyOTBPQVlMelhuNnZ1dz09>

Meeting ID: 984 5733 2925

Passcode: 979953

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