

# Allgemeines Physikalisches Kolloquium

## Donnerstag, 12.12.2019 um 16 Uhr c.t.

**Prof. Dr. Christophe Royon**

University of Kansas, Lawrence/USA



©privat

## A journey to understand the proton at the Large Hadron Collider

After a brief description of the Large Hadron Collider, we will describe how this accelerator can give new insights on the proton structure especially in the case when protons are intact in the final state. Special emphasis will be put on events where massive objects can be potentially produced that could be a sign of new physics such as the existence of extra-dimensions in the universe. We will finish by describing new detectors to measure time with very high precision of the order of 10 picoseconds that are needed for this experiment and for medical and cosmic ray applications with NASA.