

**Plenarvortrag**

PV IX Fr 9:45 Audimax

**COMPASS: Unravelling light-flavour QCD** — •JAN FRIEDRICH  
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The multi-purpose spectrometer setup of the COMPASS collaboration at the CERN SPS is in service since more than 15 years for a broad physics programme that aims at the better understanding of strong interaction, which is theoretically described by QCD. Novel results range from soft reactions testing the chiral symmetry breaking of QCD, such as the chiral anomaly, challenge hadronic bound systems and their multi-particle decays using meson resonances, and finally al-

low to unravel the role of spin and internal dynamics of the quark-gluon structure in the nucleon at high energies.

Such results have been made possible by both advances in experimental techniques and analysis methods which allow precise measurements challenging theoretical concepts.

The very successful running of COMPASS invites for extending the programme beyond the year 2020, and recently proposed options for measuring missing pieces in the transversity distributions in the nucleon, as well as a measurement of the proton radius with high-energetic muons, will also be discussed.