PHYSIKALISCHES KOLLOQUIUM

des Fachbereichs Physik der Goethe-Universität Frankfurt

Mittwoch, den 13.12.2023, 16 Uhr c.t.
Großer Hörsaal, Raum _0.111, Max-von-Laue-Str. 1

Prof. Korinna Zapp

Lund University (Schweden)

Probing the Quark-Gluon Plasma with jets

Collisions of heavy atomic nuclei at collider energies offer a unique opportunity to study strongly interacting matter in extremely dense and hot systems. Under these conditions quarks and gluons are no longer confined in bound states, but propagate as quasi-free particles in a state of matter known as the Quark-Gluon Plasma. In this talk I will discuss how highly energetic quarks and gluon traveling through this plasma can help to understand its properties and how the plasma forms. Energetic quarks and gluons fragment into collimated sprays of particles, so-called jets, that can be measured in experiments. The internal structure of jets reflects the radiation pattern of energetic quarks and gluons and is the subject of intense research. For instance, it is believed to be sensitive to coherence phenomena.

Die Dozenten der Physik

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