

Colloquium

Glimpses of Nature through Relativistic Heavy-Ion Collisions

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Science attempts to describe natural phenomena by probing nature at different scales with tools and methods, depending on the scale. The resulting revelations of nature at different scales are broadly classified as different disciplines. High Energy Physics is a discipline that probes nature at the smallest scales to understand the fundamental constituents of matter and the interactions amongst them. Desire to probe deeper pushes the limits of technology and benefits from the advancements in science and technology across different disciplines. The study of heavy-ion collisions at relativistic speeds probes macroscopic features near the smallest scales observed so far. The increased interest in the subject is also because science demands reproducibility; relativistic heavy ion collisions serve as ‘Little bangs in the laboratory’ to create conditions akin to those existing immediately after the creation of the Universe with the Big Bang. While the talk will conclude with some properties of dense nuclear matter, which may be esoteric, I will try that the journey elucidates the underlying philosophy, the general methods and the paradigm practiced in experimental high energy physics, with appropriate examples from history.

Tuesday, Aug 7th 2018

4:00 PM (Tea/Coffee at 3:30 PM)

Auditorium, TIFR-H