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**The Phase-Diagram of Nuclear Matter OUMAROU**

NJOYA, Stony Brook University — The theory of quantum chromodynamics (QCD) describes the strong interaction (color force) in the standard model. This color force binds quarks and gluons into bags known as hadrons. The rearrangement of these quarks and gluons at different temperatures and pressures (densities) gives rise to a wealth of phases, each with strikingly different and interesting characteristics. Constructing a phase diagram for this nuclear matter is thus an endeavor of great importance, although difficult. The talk will start with a basic introduction to QCD. Some theoretical considerations in the construction of the phase diagram will be outlined, followed by a description of the diagram itself. The conditions under which most phases of the nuclear matter can exist are rather extreme. Experiments at RHIC and LHC are designed to produce such conditions. I will briefly describe these experiments and will close with remarks on the experimental challenges encountered.

- Prefer Oral Session  
 Prefer Poster Session

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