LABORATORI NAZIONALI DEL GRAN SASSO

SEMINAR ANNOUNCEMENT

Marco Ruggieri (Yukawa Institute for Theoretical Physics, Kyoto)

"The Phase Diagram of Quantum Chromodynamics"

I review the current knowledge of the phase diagram of strongly interacting matter. I put emphasis on the expected diagram in the temperature and chemical potential plane, which is relevant both for the current experiments at heavy ion collisiders, and for the physics of compact stellar objects. I discuss other side and current topics as well, like the effect of a strong magnetic background, the existence of the critical endpoint, and the presence of a background of topological charge density.