Sixteenth Marcel Grossmann Meeting



Contribution ID: 108

Type: Talk in the parallel session

Most Reliable Strong and Electroweak Evolution

Tuesday, 6 July 2021 11:05 (15 minutes)

Both QCD and EW eras play essential roles in laying seeds for nucleosynthesis and even dictating the cosmological large-scale structure. Taking advantage of recent developments in ultrarelativistic nuclear experiments and nonperturbative and perturbative lattice simulations, various thermodynamic quantities including pressure, energy density, bulk viscosity, relaxation time, and temperature have been calculated up to the TeV-scale, in which the possible influence of finite bulk viscosity is characterized for the first time and the analytical dependence of Hubble parameter on the scale factor is also introduced.

Primary author: TAWFIK, Abdel Nasser (Egyptian Center for Theoretical Physics)

Presenter: TAWFIK, Abdel Nasser (Egyptian Center for Theoretical Physics)

Session Classification: Strong Electromagnetic and Gravitational Field Physics: From Laboratories

to Early Universe

Track Classification: Strong Field: Strong Electromagnetic and Gravitational Field Physics: From Laboratories to Early Universe