



Contribution ID: 302

Type: Oral

Baryophilic gauge and Gravitational Wave effect

We investigate a minimal extension of the Standard Model that includes an additional baryophilic Abelian gauge symmetry. In these classically conformal models, the thermal phase transition, driven by the Coleman-Weinberg mechanism, is strongly first-order with significant supercooling, producing observable stochastic gravitational wave signals. Our analysis reveals a substantial parameter space within these models that can be probed by future gravitational wave observatories, such as LISA, BBO, DECIGO, and Cosmic Explorer.

Field of contribution

Theory

Authors: SHAIKH , ABDUL RAHAMAN (Centre for theoretical physics,Jamia Millia Islamia,New Delhi,India -110025); Dr DASGUPTA, Arnab (Pittsburgh Particle Physics, Astrophysics, and Cosmology Center, Department of Physics and Astronomy, University of Pittsburgh, Pittsburgh, PA 15260); Prof. ADHIKARI, Rathin (Centre for Theoretical Physics, Jamia Millia Islamia, Jamia Nagar, New Delhi - 110025, India)

Presenter: SHAIKH , ABDUL RAHAMAN (Centre for theoretical physics,Jamia Millia Islamia,New Delhi,India -110025)

Track Classification: Beyond the standard model