Contribution ID: **3** Type: **not specified**

Pion string evolving in a thermal bath

Summary

By using the symmetry improved Cornwall-Jackiw-Tomboulis effective formalism, we study a pion string of the $O(4)$ linear sigma model at finite temperature in chiral limit. In terms of the Kibble-Zurek mechanism we reconsider the production and evolution of the pion string in a thermal bath created in LHC heavy ion collision experiment. Finally, we estimate the pion string density and its possible signal during the chiral phase transition.

Primary author: Mr MAO, Hong (Hangzhou Normal University)

Co-authors: Mr LU, Fan (Department of Physics, Hangzhou Normal University, Hangzhou 310036, China); Mr CHEN, Qichang (Department of Physics, Hangzhou Normal University, Hangzhou 310036, China)

Presenter: Mr MAO, Hong (Hangzhou Normal University)