ID de Contribution: **265**   Type: **Non spécifié**

Coleman-Weinberg Abrikosov-Nielsen-Olesen stringsColeman-Weinberg Abrikosov-Nielsen-Olesen strings

We study properties of Abrikosov-Nielsen-Olesen (ANO) cosmic strings with the Coleman-Weinberg (CW) potential, which we call CW-ANO strings. While the scale-invariant scalar potential has a topologically trivial vacuum admitting no strings at the classical level, quantum correction allows topologically nontrivial vacua and stable string solutions. We find that the system of two CW-ANO strings develops an energy barrier between them at intermediate (microphysical) distances, implying that the string with winding number n>1 can constitute a metastable bound state. We also discuss implications to high-energy physics and cosmology. This talk is based on arXiv 2205.04394.

Auteur principal: RYUSUKE, Jinno

Classification de Session: Parallel session 2