Contribution ID: **121** Type: **not specified**

Light particle emissions from cosmic strings

Cosmic string is a topological defect associated with the spontaneous symmetry breaking in the early universe. After the formation of cosmic strings, they form a network and evolve following the scaling regime. In this talk, I present light particle emissions from the cosmic string network. In particular, I focus on the procudtion of the axion and other pseudo-Nambu-Goldstone bosons and show that they can account for the dark matter and dark radiation in our universe today. I will show that such cosmic strings can be testable by combining the gravitational wave observations and the CMB observations.

Primary author: KITAJIMA, Naoya (Tohoku University)

Presenter: KITAJIMA, Naoya (Tohoku University)