

Axion scales and couplings with Stückelberg mixing

Thursday, 10 October 2019 10:00 (30 minutes)

In this talk, I will discuss about the axion field range and low energy couplings in models with Stückelberg mixing between axions and U(1) gauge bosons. It is noted that the gauge-invariant axion combination in the model is periodic modulo an appropriate shift of gauge-variant axions eaten by the massive U(1) gauge bosons, which in some cases makes the connection between the field range and the low energy couplings less transparent. I will identify the field basis for which all non-derivative couplings of a are quantized in a manner manifestly consistent with the periodicity of the axion. Generically Stückelberg mixing reduces the axion field range.

Presenter: SHIN, Chang Sub (CTPU IBS)

Session Classification: Session 8