Contribution ID: **66** Type: **not specified**

Can high-scale axion models have a viable cosmological history?

Wednesday 25 September 2019 16:30 (15 minutes)

High-scale axion models are sensitive to CMB isocurvature bounds, which are thought to rule out scenarios with an axion decay constant fA above 10^14 GeV. This would be incompatible with grand unification scenarios featuring an axion with fA related to the unification scale, which could otherwise be primary targets for future experiments like CASPER and ABRACADABRA. In view of the above, we re-examine the cosmological history of axion perturbations during inflation and reheating in high-scale axion models in which the axion is mostly aligned with the phase of the field which drives inflation.

Primary authors: RINGWALD, Andreas (DESY); Dr TAMARIT, Carlos (Technische Universität München); Dr BALLESTEROS, Guillermo (IFT Madrid); Dr WELLING, Yvette (DESY)

Presenter: Dr TAMARIT, Carlos (Technische Universität München)

Session Classification: Parallel Session: Cosmology & Astroparticle Physics

Track Classification: Cosmology & Astroparticle Physics