

# Scalars 2023

Contribution ID : 30

## PQ field with small self-coupling: evolution in early universe and implications for ALP DM

Friday 15 Sep 2023 at 16:15 (00h15')

### Content :

Several mechanisms generating relic abundance of ALP dark matter involve processes which take place before, during or after cosmic inflation. In such cases fundamental role is played by PQ field potential. We investigate radiative, thermal and geometric corrections to PQ field dynamics in scenarios in which the potential has very small self-coupling. We will focus on models with quasi-supersymmetric spectrum and discuss in what manner taking account of the corrections are crucial for estimating ALP DM relics.

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**Session classification :** Parallel Session 5

**Track classification :** --not yet classified--

**Type :** --not specified--