

ALP bounds from meson decays

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Meson decays offer a powerful probe for studying Axion-Like Particles (ALPs). In this talk, I will present our recent phenomenological analysis exploring ALP production in these decays, reviewing the current bounds across different channels. For this study, we systematically include hadronic ALP decays alongside a comprehensive set of ALP signatures: invisible, prompt, and displaced decays. We also examine benchmark models that capture diverse ALP properties, helping to simplify the broad parameter space. In this talk, we will also present a comprehensive study of ALPs in radiative quarkonia decays, where we study the parameter space covered by new searches in B- and Charm-factories.

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