

## Femtoscopia for $D^*0(2300)$ and $D^*s0(2317)$ states

*Tuesday, June 6, 2023 3:10 PM (20 minutes)*

We predict the correlation functions relevant in femtoscopy studies for  $S$ -wave  $D_{(s)}\phi$  pairs, with  $D_{(s)}$  a pseudoscalar open charm meson and  $\phi$  a Goldstone boson, describing their interactions with next-to-leading order unitarized heavy-meson chiral perturbation theory amplitudes.

In the  $(S, I) = (0, 1/2)$  sector, the effect of the two-state structure around 2300 MeV can be clearly seen in the correlation functions of the  $D\pi$ ,  $D\eta$ ,  $D_s\bar{K}$  channels. In the  $(1, 0)$  sector, a depletion of the correlation function near the  $DK$  threshold can be seen, produced by the  $D_{s0}^*(2317)^\pm$  state lying below the  $DK$  threshold.

These correlation functions could be experimentally measured, and will shed light into the hadron spectrum and, in particular, into the nature of these states.

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**Session Classification:** Heavy meson spectroscopy

**Track Classification:** Heavy meson spectroscopy