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## In-medium masses of scalar D mesons in $\Delta$ resonance matter

This research investigates the influence of dense non-strange resonance matter, consisting of nucleons and delta baryons ( $\Delta^{++}$ ,  $\Delta^+$ ,  $\Delta^0$ , and  $\Delta^-$ ), on the masses of scalar D mesons ( $D_0^+$ ,  $D_0^0$ ) under finite temperature conditions. The modifications of the above mesons in this medium arise from changes in the quark and gluon condensates. Using the chiral SU(3) mean-field model, we obtain the in-medium chiral condensates, which subsequently employed in QCD sum rules to evaluate the effective mass of D mesons.

### Field of contribution

Theory

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