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The six-pion amplitude

Monday, 22 November 2021 16:00 (15 minutes)

Within the framework of the massive O(N) nonlinear sigma model extended to the next-to-leading order in the chiral counting (for $N = 3$ corresponding to the two(-quark)-flavor Chiral Perturbation Theory), we calculate the relativistic six-pion scattering amplitude at low energy up to and including terms $\mathcal{O}(p^4)$. Results for the pion mass, decay constant and the four-pion amplitude in the case of N (meson) flavors at $\mathcal{O}(p^4)$ will be also presented.

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