Contribution ID: **9** Type: **Parallel-Goldstone Boson**

Three-pion scattering in the Chiral Perturbation Theory

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 $\mathcal{O}(p^4)$ are also presented.

Primary authors: BIJNENS, Johan (Lund University); HUSEK, Tomáš (Lund University (SE))

Presenter: HUSEK, Tomáš (Lund University (SE))