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Low-energy limit of the 3-flavor extended Linear Sigma Model

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The extended Linear Sigma Model (eLSM) is an effective hadronic model based on the linear realization of chiral symmetry
$U(N_f)_L \times U(N_f)_R$, with (pseudo-)scalar and (axial-)vector mesons as degrees of freedom. We study the low-energy limit of the eLSM for $N_f = 3$ by integrating out all fields except for the (pseudo-)Nambu-Goldstone bosons of
chiral symmetry breaking. After keeping only terms that enter at tree level and up to fourth order in powers of derivatives, we
compare the results with the Low Energy Constants (LECs) of the Chiral Perturbation Theory (ChPT). We find that the LECs
of the eLSM are in good overall agreement with those of ChPT.

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