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Chiral perturbation theory in the environment with chiral imbalance

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Chiral imbalance in quark medium is imprinted into the hadron matter after hadronization. It is a consequence of quark/hadron continuity. For low momenta it modifies a chiral lagrangian reappearing as a chiral chemical vector, namely a constant axial vector field. It modifies the pion spectral properties: its decays, its formfactors and polarizability. This modification of ChPT will be elucidated in details being a good phenomenological basis for discovery of local parity breaking in heavy ion collisions.

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