

The pion form factor in an NJL model

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Abstract content

Summary

We have studied the electromagnetic pion form factor in an NJL model. For it we added the pseudo vector component in the description of the pion and implemented symmetry preserving regularization which ensures Axial vector Ward Takahashi Identity and Goldberger-Treiman relations are satisfied. Based upon this symmetry preserving description of the pion, we calculate its form factor and compare it with earlier theoretical and experimental results. For the large space-like momenta, we find it to behave as a constant in contradiction with the perturbative QCD prediction. We discuss the implications of our results.

Presenter(s) : Ms. GUTIERREZ GUERRERO, Laura Xiomara (Instituto de Fisica y Matematicas UMSNH)

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