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Quark structure of the kaon from chiral effective models

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As a pseudo-Nambu-Goldstone boson, the kaon provides insights into how explicit chiral symmetry breaking influences the quark structure inside hadrons. In this talk, we explore the properties of the generalized quark distributions of the kaon within the nonlocal chiral quark model. We discuss how the explicit chiral symmetry breaking affects the (generalized) light and strange quark distributions in the kaon, compared to the pion case. We also discuss the kaon and pion gravitational form factors within chiral effective models. Finally, we review the current understanding of the parton structure of the kaon from experiments and discuss the possibility of exploring kaon parton structure through future collider experiments, such as EIC and EicC.

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