

The strange quark-antiquark asymmetry of the nucleon

Summary

The question whether there is a quark-antiquark asymmetry of the nucleon is an important issue concerning the basic structure of matter. I present a review on the studies concerning the nucleon strangeness quark-antiquark asymmetry. Our studies show that the nucleon strangeness asymmetry might be positive and could be large enough to explain a number of experimental observations: the NuTeV anomaly; with heavy quark recombination to give a sizable influence on the measurement of the nucleon strangeness asymmetry in CCFR and NuTeV dimuon measurements; the difference between Lambda and anti-Lambda spin transfers.

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