

Concepts for unifying the description of hadronic and quark matter

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I will review a few historical steps in the description of the hadron-to-quark matter transition by constructions, starting from the seminal work by Hagedorn and Rafelski “From Hadron Gas to Quark Matter” (1980) to Baym et al. “From Hadrons to Quarks in Neutron Stars” (2018) and discuss some occasional attempts at unifying the description of hadronic and quark matter phases, whereby hadronic matter would appear as the limiting case of clustered quark matter. The latter approaches require two major ingredients: a description of hadron dissociation (Mott effect) at high phase space occupation and of quark and gluon confinement at low temperatures and densities.

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