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## Three regimes of QCD

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Given the solution of  $N_f=2$  QCD on the lattice with a chirally symmetric Dirac operator and symmetry classification of the QCD Lagrangian we identify the following three physically different regimes of QCD.

Up to the pseudo-critical temperature  $T_c$  the QCD matter is a hadron gas with broken chiral symmetries. From the hadron gas regime below  $T_c$  there is a crossover to a regime with chiral and chiral-spin symmetries, where chirally symmetric quarks are bound by the chromo-electric component of gluonic field without the chromo-magnetic contributions. From temperatures 500 - 550 MeV there is a smooth evolution to the quark-gluon plasma regime with weakly interacting quarks and where only chiral symmetries survive.

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