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## Matrix model of the semi-QGP with quarks

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A matrix model of the semi-QGP, the region near the critical temperature, developed for the pure glue theory is applied to QCD with dynamical quarks. We add new parameters to address the spontaneous breaking of chiral symmetry breaking. The results of the model are compared to the latest results from numerical simulations on the lattice. We compute the interaction measure, the susceptibilities for the light and strange quarks, and quark number susceptibilities to eighth order. We note that a mixed susceptibility, between the Polyakov loop and the chiral order parameter, shows a mild divergence near the chiral transition.

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