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Quark spectrum in QGP near chiral transition YUKIO NEMOTO, Nagoya Univ., MASAKIYO KITAZAWA, YITP, TEIJI KUNIHIRO, YITP — Near but the critical temperature T_C of the chiral transition, a collective excitation due to the fluctuation of the chiral condensate, called a soft mode, appears. We investigate how the soft mode affects the quark properties. The spectral function of a quark shows a several-peak structure at low frequency and momentum. We show that one of the peaks is the plasmino state and the spectral structure is understood in terms of resonant scatterings of a quark off the soft mode. The quasihole and the plasmino have thermal masses near T_C , which results from the level repulsions between a quark and an antihole and between an antiquark and a hole. Effects of finite density are also presented.

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