

Strong Coupled Pion Superfluid

We calculate the meson screening mass and quark potential in a pion superfluid in the frame of Nambu–Jona-Lasinio model. The most strong potential is always located at the critical point of pion superfluid along any of the axes of temperature and baryon and isospin chemical potentials. Unlike the temperature and baryon density effect, the potential can not be efficiently suppressed in the pion superfluid and the quark matter is always in a strongly coupled phase even at extremely high isospin density.

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Track Classification: QCD phase diagram