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Pairing in Marginal Fermi Liquid and Luttinger Liquid in Terms of the Bethe-Salpeter Equation YURIY MALOZOVSKY, Department of Chemistry and Physics, Southeastern Louisiana University — The pairing between two fermions in the fermionic systems with the smeared Fermi distribution is considered in terms of the Bethe-Salpeter equation. The examples of the systems with the smeared Fermi distribution are the marginal Fermi liquid and the Luttinger liquid where the quasiparticle pole is absent in the Green's function. Although the pairing between two fermions in the systems with the smeared Fermi distribution is, in general, absent, the pairing similar to the Cooper's pairing can occur and the conditions for such pairing to exist are discussed.

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