

Abstract Submitted
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Quantum fluctuations in LOFF superconductors¹ KIRILL SAMOKHIN, MAXIM MAR'ENKO, Department of Physics, Brock University — We study the order parameter fluctuations near the phase transition into the Larkin-Ovchinnikov-Fulde-Ferrell superconducting state at zero temperature. In contrast to the usual normal metal-to-uniform superconductor transition, the fluctuation corrections are dominated by the modes with the wave vectors away from the origin. We find that the superconducting fluctuations lead to a divergent spin susceptibility and a breakdown of the Fermi-liquid behavior at the quantum critical point in the clean limit.

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