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Quantum oscillations near quantum critical point ARKADY SHEKHTER, NHMFL — Extensive experimental investigations of quantum oscillations in high temperature superconducting cuprates and pnictides suggest significant increase of quasiparticle mass approaching critical doping. We report theoretical analysis of quantum oscillation amplitude in a metal near quantum critical point which suggest dynamic, rather than thermodynamic, origin of the observed increase in mass. Direct thermodynamic measurements are discussed to substantiate this analysis.

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