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2D fermionic systems near a magnetic $2k_F$ instability: application to electron-doped cuprates PAVEL KROTKOV, ANDREY CHUBUKOV, Department of Physics, University of Maryland, College Park, MD — We study spin-mediated pairing in 2D itinerant electron systems near antiferromagnetic instability in a situation when the antiferromagnetic vector (π, π) connects nodal points on the Fermi surface. This scenario is related to the electron-doped high- T_c materials where the variation of the Fermi surface with doping drives the hot spots towards zone diagonals. We obtain fermionic self-energy at strong coupling and analyze the $d-$wave pairing problem.

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