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p-wave triggered superconductivity in single layer graphene on an electron-doped oxide superconductor ANGELO DI BERNARDO, University of Cambridge, ODED MILLO, Racah Institute of Physics, MATTEO BARBONE, University of Cambridge, HEN ALPERN, YOAV KALCHEIM, Racah Institute of Physics, UGO SASSI, ANNA OTT, DOMENICO DE FAZIO , DUHEE YOON , MARIO AMADO, ANDREA FERRARI, University of Cambridge, JACOB LINDER, Norwegian University of Science and Technology, JASON ROBINSON, University of Cambridge — Physical systems supporting unconventional superconducting states, where electrons pair up in a parallel spin (spin-triplet) state other than in a conventional antiparallel spin (spin-singlet) state, have been extensively investigated over the past few years due to their potential application in spintronics devices operating in the superconducting regime [1]. These systems include p-wave superconductors, where pairing correlations are intrinsically in a spin-triplet state, and magnetically inhomogeneous ferromagnet/s-wave superconductor heterostructures [2-3]. In this talk, I will discuss our low-temperature scanning tunneling spectroscopy results, which demonstrate evidence for the emergence of a p-wave superconducting state in single-layer graphene (SLG) proximity-coupled to the electron-doped high-temperature superconductor $Pr_{1.85}Ce_{0.15}CuO_4$ [4]. [1] Linder, J. & Robinson, J.W.A., Nat. Phys. 11, 307 (2015). [2] Di Bernardo, A. *et al.*, Nat. Comm. 6, 8053 (2015). [3] Robinson, J.W.A: *et al.*, Science 329, 59 (2010). [4] Di Bernardo, A. *et al.*, accepted for publication.

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