

Abstract Submitted  
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**General conditions for proximity induced odd-frequency superconductivity in two-dimensional electronic systems**<sup>1</sup> ENRICO ROSSI, Department of Physics, College of William and Mary, CHRISTOPHER TRIOLA, Nordita and Center for Quantum Materials (CQM, DRISS BADIANE, Department of Physics, College of William and Mary, ALEXANDER V. BALATSKY, Institute for Materials Science, Los Alamos National Laboratory; Nordita and Center for Quantum Materials (CQM) — We obtain the general conditions for the emergence of odd-frequency superconducting pairing in a two-dimensional (2D) electronic system proximity-coupled to a superconductor, making minimal assumptions about both the 2D system and the superconductor. Using our general results we show that a simple heterostructure formed by a monolayer of a group VI transition metal dichalcogenide, such as molybdenum disulfide, and an s-wave superconductor with Rashba spin-orbit coupling will exhibit odd-frequency superconducting pairing.

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