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Proximity-induced superconductivity in transition metal dichalcogenides[1] DRISS M. BADIANE, William & Mary Coll, CHRISTOPHER TRIOLA, E. ROSSI, Department of Physics, College of William and Mary, Williamsburg, Virginia 23187, USA — In this work we study the proximity induced superconductivity in a monolayer of the transition metal MoS_2 placed on top of a superconducting substrate. We investigate the symmetries of the proximity-induced superconducting pairing amplitude and we find that superconducting substrates with spin-orbit coupling can induce odd-frequency pairing in the MoS_2 monolayer. We discuss the relevant experimental signatures of the proximity-induced superconducting phase in the MoS_2 monolayer.

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