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Unconventional superconductivity in p-doped MoS_2 monolayer[1]
YI-TING HSU, ABOLHASSAN VAEZI, EUN-AH KIM, Cornell University — Recent observation of superconductivity in n-doped MoS_2 monolayer has generated much interest. Though precise superconducting nature of the system is still under theoretical debate, the observation motivates the study of superconductivity in this atomic layer system. In particular, the valley-spin locking of the p-doped MoS_2 monolayer suggests possibility of exotic type of superconductivity in the system. We use two-step perturbative renormalization group treatment to study superconducting instabilities in various channels and discuss the possibility of an exotic modulated superconductor.

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