Anisotropy of superconducting properties of van der Waals superconductor/ferromagnet heterostructures

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It is well-known fact that in van-der-Waals superconducting (SC) materials such as NbSe2 Ising spin-orbit interaction is rather strong, what leads to the strong dependence of the superconducting properties of a film on the direction of external magnetic field. Similar effects of anisotropy occur in heterostructures in which superconducting and magnetic layers are combined. In our work such anisotropy of SC state along with critical current and effects of non-reciprocity are studied in systems with magnetic insulator, such as CrI3, CrBr3 or CrCl3 and magnetic topological insulator MnBi2Te4.