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STM/STS on proximity-coupled superconducting graphene[1]
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Graphene in good electrical contact with a superconductor has been observed to have an enhanced proximity effect. Application of a magnetic field is expected to generate an Abrikosov lattice of superconducting vortices, each containing Andreev bound states in its core. With our versatile, homebuilt, low temperature scanning tunneling force microscope (STM/SFM), we investigate the electronic properties of graphene on superconducting $NbSe_2$ in a magnetic field and search for signatures of these vortex core states.

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