

Abstract Submitted
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Multiband Superconductivity in $2H\text{-NbSe}_2$ Probed by Cryomagnetic STM Spectroscopy¹ IGOR FRIDMAN, J.Y.T. WEI, University of Toronto and Canadian Institute for Advanced Research, C. KLOC, Nanyang Technological University, Singapore, V. LUKIC, Department of Bioengineering, University of Pennsylvania, RONGWEI HU², C. PETROVIC, Condensed Matter Physics and Materials Science Department, Brookhaven National Laboratory — Using a novel magnetic field geometry, we study multiband pairing in single crystals of superconducting $2H\text{-NbSe}_2$ under finite superfluid momentum. Spectroscopy and conductance imaging were performed with a scanning tunneling microscope (STM) at 300 mK and in a field of up to 9 T, applied in the *ab*-plane. We observed multiple spectral features that evolve systematically with field, and a two-sloped zero-bias conductance that dips anomalously at 0.7 T. Our analysis yields distinct evidence for multiple gaps coming from the various Fermi-surface sheets, and has possible implications on the origin of the coexisting charge density wave order.

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