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Spin-triplet supercurrent in planar geometry ferromagnetic Josephson junctions[1] WILLIAM M. MARTINEZ, W.P. PRATT, JR., NORMAN O. BIRGE, Michigan State University — The spin-triplet supercurrent in ferromagnetic Josephson junctions is obtained by surrounding the central ferromagnet with noncollinear ferromagnetic layers, F' [1]. In metallic ferromagnets, the long-range nature of the spin-triplet supercurrent has only been tested to lengths of a few tens of nm [2]. In this work, we are fabricating and measuring S/F'/F/F'/S junctions where the central F layer has a lateral geometry with lengths up to a few hundred nm. We will report on our recent progress.

[1] A.F. Volkov, F.S. Bergeret and K.B. Efetov, Phys. Rev. Lett., **90**, 117006 (2003).
[2] M.A. Khasawneh, T.S. Khaire, C. Klose, W.P. Pratt, Jr., and N.O. Birge, Supercond. Sci. Technol., **24**, 024005 (2011).

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