Control of Spin-Triplet Josephson Junctions with Perpendicular Anisotropy\textsuperscript{1} ERIC GINGRICH, Michigan State University, SIMON DIESCH, University of Konstanz, WILLIAM PRATT, NORMAN BIRGE, Michigan State University — We present recent work on S/F'/F/F''/S Josephson Junctions with the magnetic multilayer Ni/[Co/Ni]\textsubscript{n} as the central F layer [1]. This multilayer possesses strong intrinsic perpendicular (out-of-plane) anisotropy at Co and Ni thicknesses of a few monolayers. If a hard ferromagnet is used for F', and a softer ferromagnet is used for F'', both with magnetizations in plane, the direction of the F'' layer’s magnetization is predicted to control the state of the junction [2]. We are fabricating such junctions with the goal of controllably switching the junction between the 0 and \pi states. By integrating these junctions in a SQUID device, a measurement of the 0 and \pi state of the junction can be performed. We will report on our progress.

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