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Direct measurements of the current-phase relation in long-range spin-triplet SFS Josephson junctions DAVID HAMILTON, DALE VAN HAR-LINGEN, Univ of Illinois - Urbana, YIXING WANG, NORMAN BIRGE, Michigan State University — We present direct measurements of the current-phase relation (CPR) of Josephson junctions which use multiple ferromagnetic layers to generate long-range spin-triplet pair correlations. Using a phase-sensitive Josephson interferometry technique, we obtain the phase and temperature dependence of this spintriplet supercurrent. We also demonstrate the use of an inductive shunt to enhance this technique at higher critical currents. Our data suggest that the current-phase relation of these junctions is harmonic in character. Further measurements are planned in order to determine the ground state phase shift of these junctions.

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