

Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

Spontaneous spin accumulation in singlet-triplet Josephson junctions KRISHNENDU SENGUPTA, TCMP division, Saha Institute of Nuclear Physics, Kolkata, India, VICTOR YAKOVENKO, Department of Physics, University of Maryland — We show that the Andreev bound states in Josephson junctions between singlet s -wave and triplet p -wave superconductors carry a net magnetic moment. This magnetic moment depends on the relative phase between the superconductors constituting the junction and changes sign when the relative phase shifts by π . We estimate the net magnetization of such junctions and suggest several realistic experiments to detect this magnetization. We also discuss possible magnetization flip in such junctions in the presence of an applied bias voltage.

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Date submitted: 26 Nov 2007

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