

Abstract Submitted
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Supercurrent-Induced Magnetization Dynamics JACOB LINDER,
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Tokyo Institute of Technology — We investigate supercurrent-induced magnetiza-
tion dynamics in a Josephson junction with two misaligned ferromagnetic layers, and
demonstrate a variety of effects by solving numerically the Landau-Lifshitz-Gilbert
equation. In particular, we demonstrate the possibility to obtain supercurrent-
induced magnetization switching for an experimentally feasible set of parameters,
and clarify the favorable condition for the realization of magnetization reversal.
These results constitute a superconducting analogue to conventional current-induced
magnetization dynamics and indicate how spin-triplet supercurrents may be utilized
for practical purposes in spintronics.

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