

Abstract Submitted  
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**Can spin-up go down in a Stern-Gerlach device? The propagator approach to Stern-Gerlach wavepacket dynamics** BAILEY HSU, JEAN-FRANCOIS VAN HUELE, Brigham Young University — The Stern-Gerlach effect (SGE) is iconic for visualizing spin. We analyze the evolution of atomic wavepackets by constructing exact solutions using propagators in SGE field configurations in different approximations. We contrast our results with the standard presentation of the SGE in textbooks and literature and illustrate with visual animations in 2D and 3D.

Bailey Hsu  
Brigham Young University

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