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Quantum calculations of spin-1 squeezing at finite magnetic field
CHRIS HAMLEY, COREY GERVING, THAI HOANG, MICHAEL CHAPMAN, Georgia Institute of Technology — We investigate spin mixing in a finite magnetic field theoretically using numerical integration of Fock states for a tri-diagonal Hamiltonian as well as the Q-representation of the coherent (mean-field) states. We identify approximate SU(2) subspaces of the SU(3) system and compare them to previous theoretical work. We also compare the results of this simulation to recent experimental measurements.

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