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Field Induced Supersolid Phase in Spin-One Heisenberg Models
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We use quantum Monte Carlo methods to demonstrate that the quantum phase diagram of the S=1 Heisenberg model with uniaxial anisotropy contains an extended supersolid phase. We also show that this Hamiltonian is a particular case of a more general and ubiquitous model that describes the low energy spectrum of a class of *isotropic* and *frustrated* spin systems. This crucial result provides the required guidance for finding experimental realizations of a spin supersolid state.

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