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**Dynamics of a Dipolar Spin-1 BEC.** KONSTANTINOS TSEKOURAS, SU YI, HAN PU, Rice University, Department of Physics and Astronomy — Recent experimental data on chromium condensates has emphasized the role of dipolar interactions in BEC dynamics. We employ the SMA (single mode approximation) method to study the dynamics of a dipolar spin-1 Bose-Einstein condensate both in the absence and in the presence of a magnetic field. Particular attention is given to the interplay of the dipolar interactions with the magnetic field, and numerical simulation is used to illustrate the feasibility of observing the effects of dipolar interactions in the case of an  $^{87}\text{Rb}$  BEC.

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