Abstract Submitted
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Weakly driven, damped optomechanical cavity QED system ANDREW JACOBS, JAMES CLEMENS, Miami University — We investigate a weakly driven optical cavity containing a single two-level atom with an oscillating end mirror or a suspended dielectric membrane which is free to oscillate in response to radiation pressure. We calculate the probe spectrum and the photon and phonon statistics for the intracavity field and the oscillating mass with the optomechanical coupling treated quantum mechanically.

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