

Abstract Submitted
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A spectroscopic study of resonant energy exchange among cold Rydberg atoms¹ EMILY E. ALTIERE, Bryn Mawr College, THOMAS J. CARROLL, Ursinus College, MICHAEL W. NOEL, Bryn Mawr College — Cold Rydberg atoms can exchange energy through long-range dipole-dipole interactions. The Stark effect allows us to tune the positions of the Rydberg states with a static electric field, which can bring into resonance this energy exchange. We present measurements of the spectrum of these resonant energy exchanges as the static field is varied for a broad range of initially excited Rydberg states and compare these measurements with calculated spectra.

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