

Abstract Submitted
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Spatially resolved imaging of the dipole-dipole energy exchange among ultracold Rydberg atoms¹ LAURA C. POPA, MICHAEL W. NOEL, Bryn Mawr College — The dipole-dipole interaction allows ultracold highly-excited atoms to exchange energy over long distances. By exciting Rydberg atoms to two different states using a pair of crossed laser beams we localize the initial interaction to the region of intersection. Using a spatially sensitive ion detector, we then observe how this energy exchange evolves in time throughout the sample.

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