

Abstract Submitted  
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**Imaging of energy transfer in a frozen Rydberg gas**<sup>1</sup> DONALD P. FAHEY, Bryn Mawr College, THOMAS J. CARROLL, Ursinus College, MICHAEL W. NOEL, Bryn Mawr College — The dipole-dipole interaction is the dominant mechanism for energy exchange among atoms in a frozen Rydberg gas on microsecond time scales. By way of selective field ionization and a spatially sensitive ion detector, we image the transfer of energy among Rydberg atoms. We explore the effect of different spatial arrangements of Rydberg atoms on the energy transfer.

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