

Abstract Submitted  
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**Energy Flow in a Two Temperature Fermi Gas**<sup>1</sup> LORIN BAIRD,  
XIN WANG, STETSON ROOF, JOHN THOMAS, North Carolina State University — We create a strongly interacting Fermi gas of  ${}^6\text{Li}$  and divide it with a thin repulsive optical potential. Using Digital Micromirror Devices we also shape and modulate the repulsive optical potential to control the relative density and temperature of the two clouds. When the separating barrier is lowered the system is brought into contact. We plan to measure the thermal conductivity and diffusivity in the gas by observing the energy flow between the two clouds.

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