

Leveraging the OSIRIS-REx Sample Return Capsule re-entry for infrasound detection of atmospheric events

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INTRODUCTION AND MAIN RESULTS

The OSIRIS-REx capsule's hypersonic re-entry provided unique infrasound observations to investigate atmospheric entry physics. A network of 39 sensors recorded signals, enabling analysis of amplitude and period changes with altitude. Results show strong altitude dependence. Propagation path effects were secondary to source altitude, confirming source parameters as primary drivers of signal characteristics.

*work performed at SNL

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