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Acoustic Analogue to Slow Light SHAWN HILBERT, ADAM CAPREZ, HERMAN BATELAAN, University of Nebraska-Lincoln — Acoustic waves provide an easy way to understand and demonstrate low group velocities. This poster provides an interesting analogy to the widely discussed slowing of light waves. We compare our slowing of light data to our new slowing of sound data. Sound waves are sent into a closed aluminum tube, and their frequencies are scanned around the resonant frequencies of the tube to obtain the dispersion curve for the system. We compare the group velocity obtained from the dispersion curve to the directly observed group velocity of a propagating pulse. In this way we show that a pulse of sound in our system travels at 3 meters per second in air.

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