

Abstract Submitted  
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**A New Twist on Resonance in a Tube** RICH SCHELP, Erskine College — Understanding resonance is key to making sense of a wide range of physical phenomena. I will illustrate a simple and inexpensive way to allow students to explore resonance using equipment that many high schools and colleges already have available. The benefits of this method include: (1) Students get clear, convincing data without much difficulty, (2) Students are themselves the sound sources, bringing the experiment from “what lab apparatus does” to “how the world works”, (3) Students work through the meaning of a visual representation of sound as they predict how altering the setup will affect the representation, (4) Students use their data to find the speed of sound in air to within a few percent of the standard value. With the appropriate emphases and level of analysis, this experiment is suitable as a lab for college students, a lab for high school students, or as a demonstration.

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