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**Measurement and Calculation of the Acoustic Impedance of Air Columns** HERBERT JAEGER, Miami University — The behavior of an air column may be described in terms of the applied pressure and the resulting flow of air. The acoustic impedance is defined as the ratio of pressure to the resulting air flow. Knowledge of the acoustic impedance reveals important characteristics of the air column; thus it is desirable to perform impedance measurements to characterize an acoustic system. A simple method of measuring the acoustic impedance is presented, along with some examples of acoustic effects and properties of air columns. Moreover, a method for calculation of the acoustic impedance of an air column of arbitrary shape is outlined. Agreement – or lack thereof – of measurements and calculations are discussed.

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