

Otoacoustic Emission Methodology: A Non-Invasive Probe to Inner Ear Function

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Otoacoustic emissions (OAEs) have become a useful tool for examining auditory function in both scientific and clinical contexts. As we learn more about the generation mechanisms in the inner ear that give rise to OAEs, novel applications are increasingly being explored/developed. This session will provide a functional overview of an OAE measurement system and is intended to be worthwhile to those who currently measure OAEs, as well as those either interested in doing such (but have little previous experience) or who just want a basic understanding of the methodology. Furthermore, the discussion will be general enough such that the methods discussed are applicable to both human (e.g., clinical) and animal ears. Several topics will provide focus: a brief overview on current thoughts about emission generation, methods for measuring spontaneous (SOAEs) and evoked emissions (e.g., CEOAEs, DPOAEs, SFOAEs), issues associated with noise and probe calibration, and strategies for incorporating emission phase into the analysis.