

Abstract Submitted
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The role of resonant ear canal thermal noise pressure on the eardrum in helping to determine auditory thresholds MICHAEL J. HARRISON, Michigan State University — The influence of thermal pressure fluctuations on the tympanic membrane has been re-examined as a possible contributing determinant of the threshold of human hearing over the range of audible frequencies. The early approximate calculation of Sivian and White [1] is shown to result in higher values of thermal noise pressure on the tympanium of a model meatus than the result obtained by directly calculating the noise pressure from thermally excited resonant ear canal modes.

[1] L.J. Sivian and S.D. White, “Minimum audible sound fields,” *J. Acoust. Soc. Am.* **4**, 288-321 (1933).

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