



PHYSICS COLLOQUIUM

Bringing Hearing to the Deaf

Cochlear Implants: a Technical and Personal Account



Ian Shipsey

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Host: Loveless

Abstract: Cochlear implants are the first device to successfully restore neural function. They have instigated a popular but controversial revolution in the treatment of deafness, and they serve as a model for research in neuroscience and biomedical engineering. In this talk the physiology of natural hearing will be reviewed from the perspective of a physicist, and the function of cochlear implants will be described in the context of historical treatments, electrical engineering, psychophysics, clinical evaluation of efficacy and personal experience. The social implications of cochlear implantation and the future outlook for auditory prostheses will also be discussed.

About the Speaker: Ian Shipsey is a particle physicist. He has been profoundly deaf since 1989. Recently he heard the voice of his 11 year old daughter for the first time, and his wife's voice for the first time in thirteen years thanks to a cochlear implant.

2241 Chamberlin Hall • Friday, February 8, 2008 • 4:00 P.M.