



What's Inside? Neural Fluctuations vs. Stimulus-based Envelopes

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Most studies of envelope processing have focused on either the wideband stimulus envelope, or on the envelopes of a linear filterbank representing the auditory periphery. This talk will introduce the transformation of stimulus envelope that occur from the auditory periphery through the auditory midbrain. Nonlinear transduction of sensory receptor cells in the cochlear, together with nonlinear cochlear amplification, result in significant distortion (or enhancement) of stimulus features related to the envelopes of complex sounds. Consideration of the neural representation of stimulus envelope features provides a different insight for considerations of psychophysical sensitivity to this aspect of complex sounds.