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Title: Stimulus-specific adaptation in the auditory system

Abstract:

Neurons throughout the auditory system show stimulus-specific adaptation (SSA) - the decrease in responses to a repeated stimulus, which generalizes only partially to other stimuli. I will show that SSA in auditory cortex is extremely sensitive to the structure of the tone sequences used to probe it, and that it can be elicited by wideband stimuli that are balanced spectrally and temporally. Then I will discuss possible mechanisms underlying SSA. While SSA in subcortical stations is consistent with simple models of adaptation of excitation in narrow frequency bands, SSA in cortex does not fulfil the predictions of such models.