

ACOUSTICS2008/3372
**The effects of fluctuating interaural cues on the segregation of
speech in rooms: Revisited**

Douglas Brungart and Nandini Iyer
AFRL, 2610 Seventh Street, WPAFB, OH 45433, USA

Spatial separation is known to improve the segregation of talkers in anechoic environments, but spatial auditory cues can be severely degraded in reverberant rooms. One might expect the random disruptions in the interaural time and level differences (ILDs and ITDs) that occur in reverberant environments to eliminate many of the intelligibility benefits that normally occur for spatially separated speech. However, the precedence effect often leads to a robust perception of spatial location even in extremely echoic environments. This can result in an apparent separation between talkers that may facilitate selective attention to the location of the target speech even in a highly reverberant room. Also, random fluctuations in ITD and ILD may lead to differences in the apparent source widths of the target and masking sounds, which might serve as a segregation cue. In this talk, we examine the effects fluctuating interaural difference cues have on the segregation of target speech from competing speech or noise. These results, originally scheduled for presentation at the 152nd meeting, suggest that differences in apparent source width can be used to segregate competing speech signals even when the target and masking signals appear to originate from the same direction relative to the listener.