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**Several properties of distortion product otoacoustic emissions can
be modeled by simple input/output functions**

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Distortion product otoacoustic emissions (DPOAEs) often exhibit regular patterns in both amplitude and phase as functions of both the levels and frequencies of the generating primary tones. Many of these patterns can be approximated when modeled by simple input/output functions. In particular, nulling patterns in rabbit DPOAEs and their modifications upon noise damage or fatiguing tonal exposures can be modeled at the level of input/output functions. Also, input/output functions can be used to propose the possible physics that underlies some complicated DPOAE patterns in level/frequency space that occur in the presence of a third tone. Both data and models will be reviewed.