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Subject: Aspect ratio

Posted by [Wayne Parham](#) on Wed, 21 Dec 2005 15:21:35 GMT

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I respect you and I respect your work. But I don't like axisymmetric horns, never did. They're nice for mathematical simplicity, and easy to promote as a purist thing. But I can't think of a single instance where a symmetric coverage pattern is desired. I much prefer a radial horn, maybe one of the other horn variants in your book would satisfy. Seems like I recall you mentioned a geometry that provides a rectangular pattern but that still provides some of the other benefits that you have worked towards in respect to reduction of high order modes and diffraction. The rooms in homes are rectangular, and the desired pattern is wider than it is tall. We don't want the sound bouncing off the floors and ceiling, energy there is a waste. The coverage required in a prosound environment is almost always wide, whether inside small indoors venues or large outdoor events. If axisymmetric horns are used, they are best splayed so that they form what is essentially a multicell horn. So since we're working with a rectangular coverage pattern, I prefer a horn with a rectangular aspect ratio.

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