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Subject: Beam Steering

Posted by [Wayne Parham](#) on Sat, 16 Apr 2005 15:50:18 GMT

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I think the Yamaha array is sort of a direct/reflecting thing, one that is designed to generate a sound field with very complex, dense interference patterns. It's made to be very ambient. But when I think of horizontal arrays, I like to think about the prospects of beam steering. Check out the link in the post called "Phasing and subsystem delay." The thread was actually about the pattern formed when using speakers with dissimilar group delay, and the links are about horizontal coverage and beam steering. The Meyer paper shows successful beam steering, but it also illustrates the complications. With audio, there isn't a single frequency to be dealt with, like would be the case with RF antenna arrays. Kinda hard to get beam steering over a 10 octave range. You can do it in one frequency range, but not throughout the entire audio band. But I still think it is an interesting technique.

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