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Subject: Re: Predicting room boundary reinforcement  
Posted by [Wayne Parham](#) on Thu, 26 Sep 2002 02:23:21 GMT  
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Basically, a room boundary sets radiating angle if it is within a 1/4 wavelength. If a room boundary is further than that, it acts as a reflector instead. The goal is to take advantage of these boundary conditions, and to avoid situations that will cause cancellation nulls to form. I'd suggest Chapter 2 of George Augsperger's "JBL Professional Sound System Design Manual." Chapters 5 and 6 also contain excellent reference material for things like reflected energies, the reverberent field and room equalization. A good discussion about room placement and treatments was written by Siegfried Linkwitz in his website article called "Room acoustics." Another excellent reference article is "Loudspeakers and Rooms for Multichannel Audio Reproduction," by Dr. Floyd Toole. Loudspeakers and Rooms for Multichannel Audio Reproduction, Part 1 Loudspeakers and Rooms for Multichannel Audio Reproduction, Part 2 Loudspeakers and Rooms for Multichannel Audio Reproduction, Part 3