ACOUSTICS2008/3322 Room acoustics measurements with an approximately spherical source of 120 drivers

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An approximately spherical source of 120 individually controlled drivers is used to perform impulse response measurements in a room with a 1.4 second reverberation time and a distinct echo. The signal to the drivers is processed to produce both omni directional and unidirectional patterns. The omni directional pattern is compared with measurements made with a traditional 12 sided source. The unidirectional patterns are measured both pointed towards and away from the listener position. Intelligibility metrics for the different directionalities and orientations are measured. The unidirectional pattern is aimed in different directions to minimally and maximally excite the distinct echo in the room, and locate it's origin.