MainChurch

Room impulse response (RIR) data were recorded defining the acoustic transfer function from 10 loudspeakers in a circular array, at different height, to 48 microphones disposed in a double concentric circular form. Each RIR is 65536 samples at 44.1 kHz. The dataset was captured in the Emmanuel Church, Guildford, UK, in July 2015, and includes metadata describing all microphone and loudspeaker positions, the room size, plus some photos. The dataset comprises a file in the SOFA format. Metadata are encoded directly in to the SOFA files, and an overview of the dataset is provided here below.

Considering the centre of the loudspeakers configuration as the centre of the Cartesian coordinate system:

- The microphones array is oriented to have the microphone labelled as 1 and 25 in front to the loudspeaker labelled as 1. The other microphones are labelled *counterclockwise*. They all have the same z-axis value equal to 0. The floor is at z=-0.97m.
- The loudspeakers are at different elevations. Their coordinates are:

	Ls1	Ls2	Ls3	Ls4	Ls5	Ls6	Ls7	Ls8	Ls9	Ls10
X(m)	0	2.50	2.50	-2.50	-2.50	0	-4.70	4.70	-4.70	4.70
Y(m)	5.00	4.33	4.33	4.33	4.33	5.00	-1.71	-1.71	-1.71	-1.71
Z(m)	0.06	1.15	0.06	1.15	0.06	1.15	0.06	1.15	1.15	0.06