Studio1

Room impulse response (RIR) data were recorded defining the acoustic transfer function between 15 loudspeakers at different heights and different distances, and 48 microphones disposed in a double concentric circular form. Each RIR is made of 65536 samples with a sampled at a frequency of 48 kHz. The dataset was captured at the University of Surrey's PATS Studio1, in July 2014. It includes metadata describing all microphone and loudspeaker positions, and the room size. The dataset comprises one file in the standard .SOFA format, and a .zip containing .wav, referring to the sound-field microphone recordings for each loudspeaker. Metadata are encoded directly within the SOFA file. An overview of the recording setup is provided below.

Considering the centre of the microphones array 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 2. The other microphones are labelled *counterclockwise*. They all have the same z-axis value equal to 0.
- The sound-field microphone is positioned at the coordinates (0;-1.51;0.10)m.
- The first four loudspeakers lie at the points of coordinates:

	Ls1	Ls2	Ls3	Ls4
X(m)	-1.410	0	1.410	0
Y(m)	1.410	2.000	1.410	3.000
Z(m)	0	0	0	0

- The loudspeakers labelled between 5 and 15 are at different elevations. Their coordinates are:

	Ls5	Ls6	Ls7	Ls8	Ls9	Ls10	Ls11	Ls12	Ls13	Ls14	Ls15
X(m)	-2.150	-1.290	1.530	1.850	0	-2.470	-2.410	1.520	3.080	-1.070	0.650
Y(m)	1.560	2.760	2.660	1.360	3.210	1.130	3.510	2.370	0.350	3.500	3.390
Z(m)	-0.320	-0.320	-0.320	-0.320	-0.320	-0.320	-0.320	-0.320	-1.200	-1.200	-1.200

- The floor is at z=-1.50m, the ceiling at z=5.00m. The four walls are positioned at: y=6.94m, y=-10.14m, x=7.43m, and x=-7.12m.

Figure 1 Studio1.