

Double Bass Arrays under the Pointed Roof

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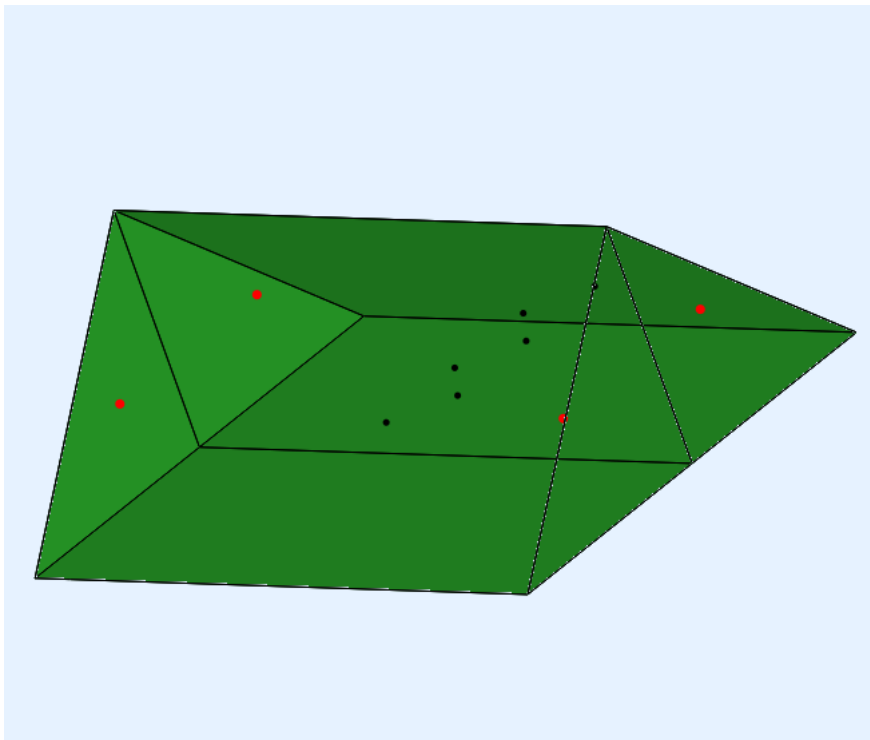
2. Motivation

The aim is to investigate whether a double bass array also works and can be optimized under a pitched roof.

3. Simulation

The simulations were carried out with ABEC. The virtual room measures 6 x 4.8 x 2.2 m. The measuring positions were 3.5 and 4.5 m from the front wall and extend from the longitudinal center 1 m to the left and to the right. In total, there are six measuring points that are supposed to represent two rows of seats. The rear one is slightly raised.

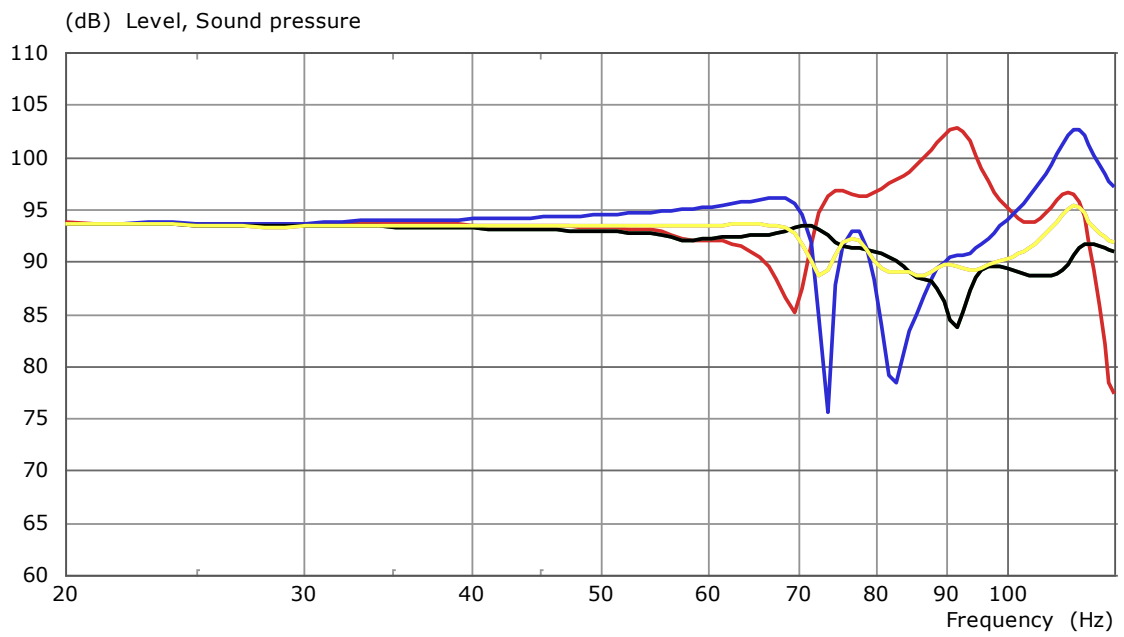
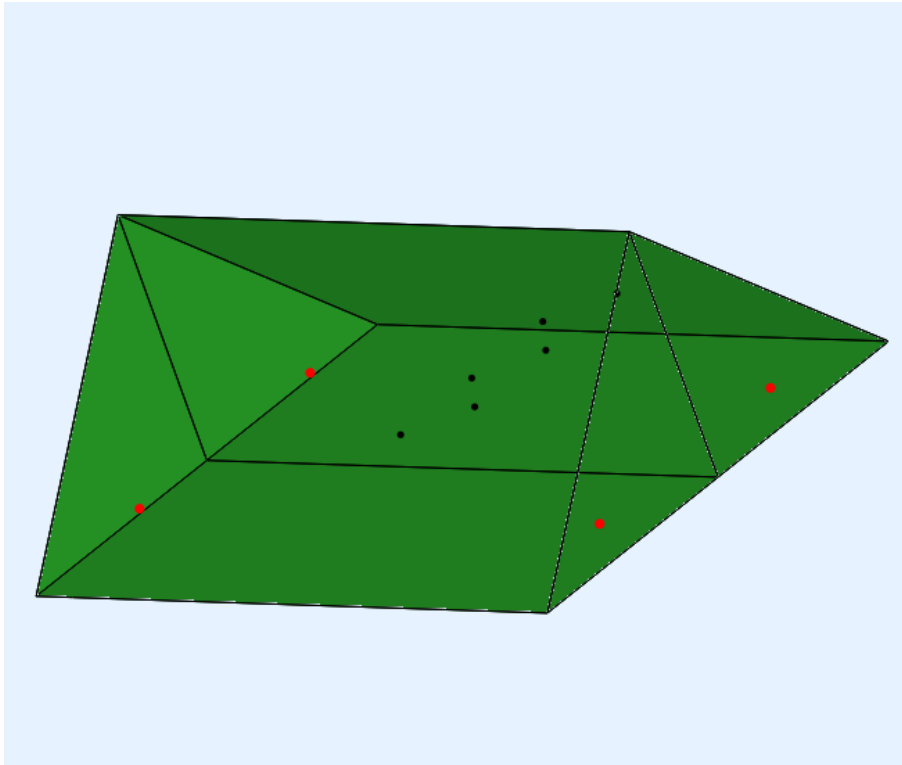
Two drivers per grid were simulated, as only half of the area is available on the end walls as in a cuboid room.



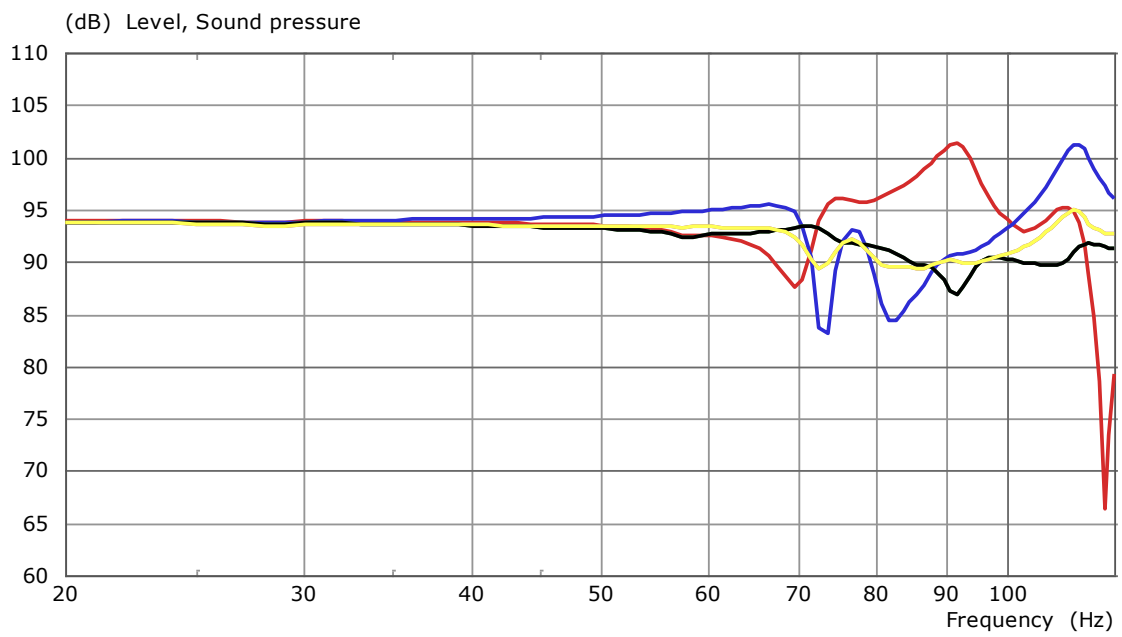
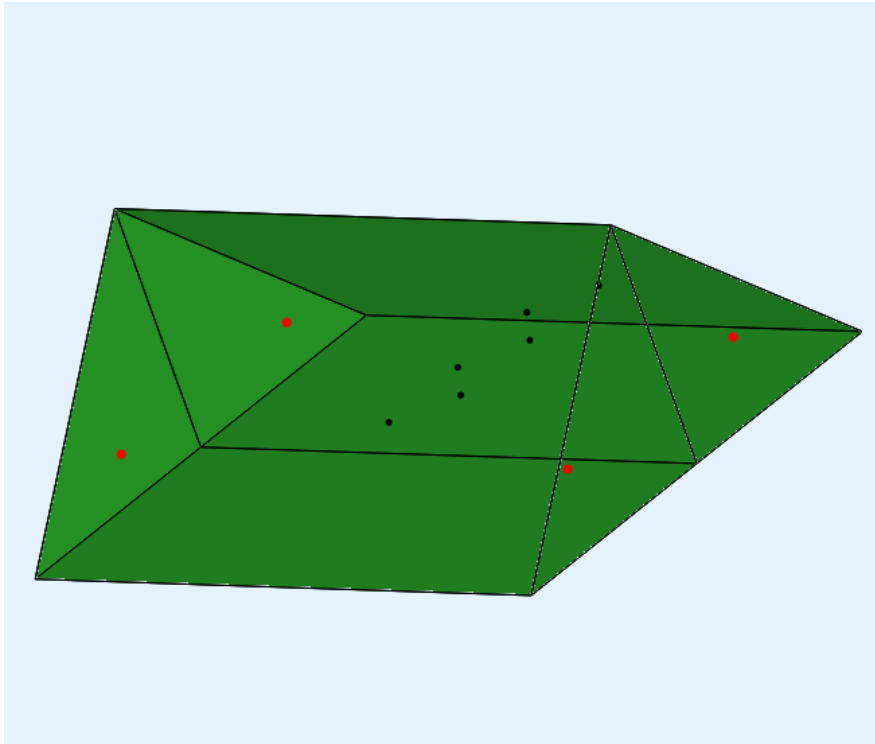
Colors of the measuring positions in the amplitude response:

- **Black:** Center Front
- **Yellow:** Front side
- **Red:** Center Center
- **Green:** Middle Side
- **Blue:** Centre back

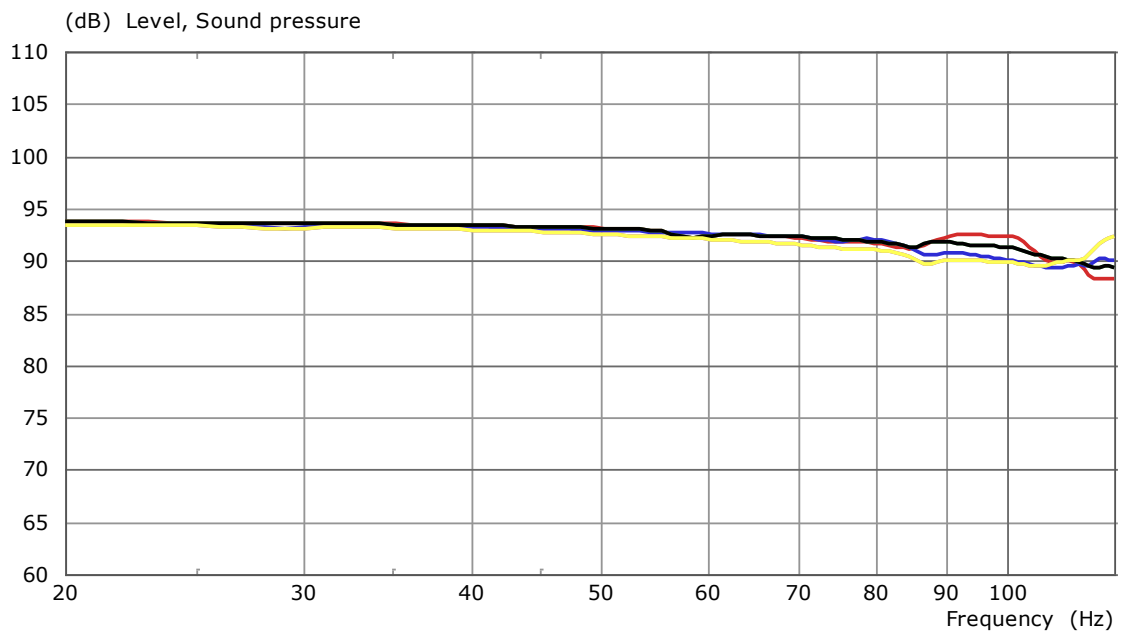
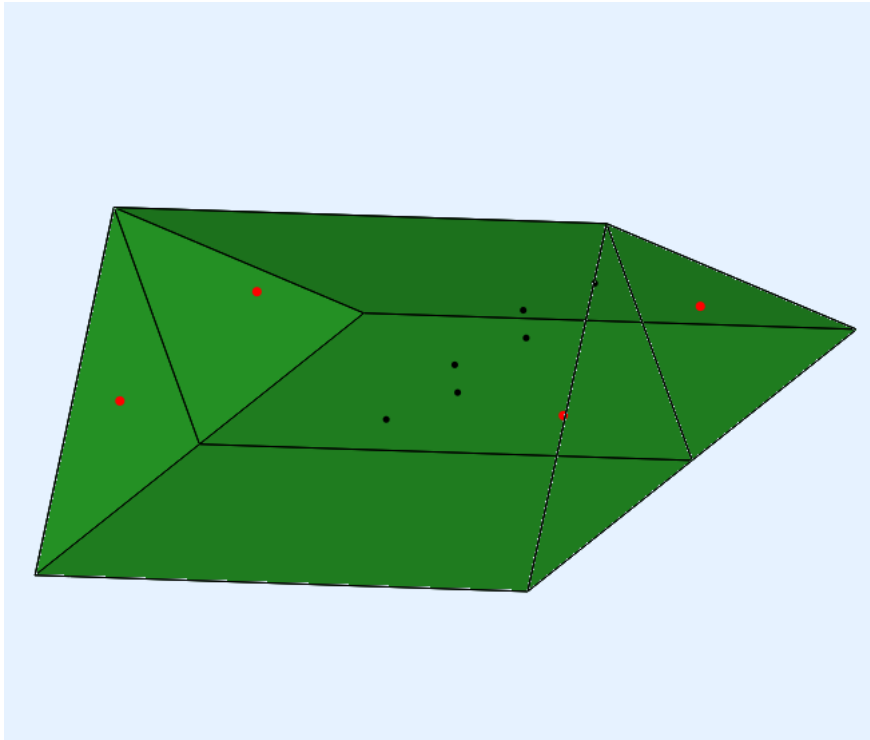
3.1. Driver on $\frac{1}{4}$ of the width and on the ground



3.1. Driver to $\frac{1}{4}$ of width and $\frac{1}{4}$ of height



3.2. Driver to $\frac{1}{4}$ of width and $\frac{1}{2}$ of height



4. Result

Even in a room with a triangular end face, the optimal arrangement for two drivers per grid is the same as in a cuboid room, namely at $\frac{1}{4}$ of the width and $\frac{1}{2}$ of the height.