Simulations and Subjective Rating of Acoustic Conditions in a Symphony Orchestra—A Case Study

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Three-dimensional models of the venues

GS (stage) and GP (pit)

PG (rehearsal studio)

AC
OKH1 and OKH2

BSH

VM

Orchestra model positioned in PG
Above: Footprint of the PG model with the orchestra model shaped as a 4-sided polygon surface, hovering 1.2 m above floor level with a total area of 98 m². The dot with a cross is the position referred to as KM in the text. The dot “2” is used to simulate ST-parameters in the source receiver combination at a 1-m distance from KM.

Orchestra Model with source–receiver grid

Above: Footprint of the PG model with orchestra: The colors represent simulated values of D-R for different positions relative to KM (cross) and distributed over a 43-point grid (1.5-m spacing) over the orchestra.