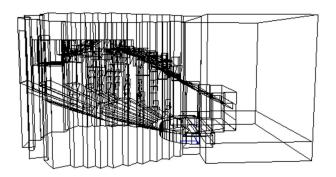
Simulations and Subjective Rating of Acoustic Conditions in a Symphony Orchestra—A Case Study

Magne Skålevik 1,2

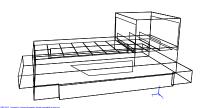
¹ AKUTEK; 3430 Spikkestad, Norway

² Brekke & Strand, 0275, Oslo, Norway, msk@brekkestrand.no; Tel.: +47-4147-9375

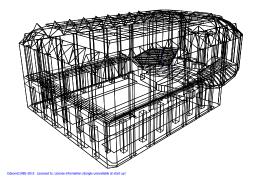
Three-dimensional models of the venues



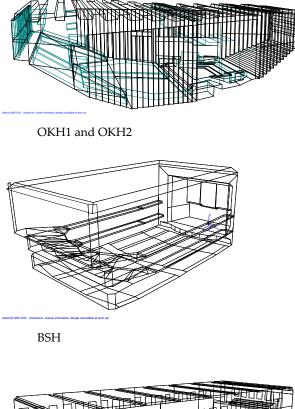
GS (stage) and GP (pit)



PG (rehearsal studio)





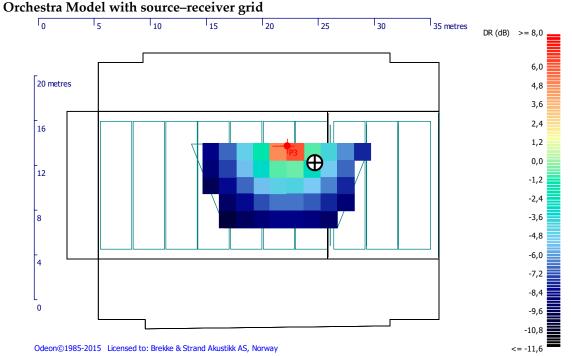






Orchestra model positioned in PG ۱₅ 35 metres 25 metres

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.



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