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Theoretical considerations in the prediction of decay times for the
Philharmonie de Paris

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The brief for the Philharmonie de Paris includes the requirement that the hall should combine great clarity with high reverberation. The proposed solution, which won the design competition, consists of two nested chambers: an inner space producing acoustical intimacy and an outer space with its own architectural and acoustical presence. The interaction between these two spaces gives the possibility for the full range of acoustical adaptability required in the acoustical brief. This paper reports on some theoretical modelling work for the hall where the geometry considered is first described in the context of coupled space modelling. The predicted range of the variability achieved in the design by closure of the coupling openings is then presented. Finally, the paper discusses the appropriateness of these models when predicting the decay times in such a complex geometry.