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**Prediction of the sound field in anechoic rooms : comparison of
two different approaches**

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Despite the numerical advances, predicting the sound field in anechoic rooms is still challenging because it requires a fine modeling of the wall surface, acoustic properties and geometry, and the computation of the room sound field. It is proposed here to compare two innovative approaches to predict the performance of anechoic wedges, in particular to quantify the influence of porous frame motion, and to propose a numerically efficient model for the prediction of the sound field in anechoic room sounds at low frequencies. The first approach relies on the theory for modeling the sound propagation in double porosity media first presented by Olny & Boutin [J. Acoust. Soc. Am. 114 (1), 2003]. It has been shown that this approach could accurately predict the cut-off frequency of anechoic wedges. The interest is that this approach is numerically costless and that complex geometry could be considered. The second approach is based on the combination of FEM and BEM. It allows to predict the sound field in anechoic rooms. Compared to the previous approach, the latter one has the advantage of being able to identify structural effects inside the wedges and to propose an accurate prediction of the sound field in the room.