

## CFADAGA2004/498

# Evaluation of procedures to determine uncertainties in building acoustic measurements

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In order to determine uncertainty values according to the GUM of single number quantities being the final results of several building acoustic measurement procedures two basic tasks exist. The one is to establish procedures for the determination of the uncertainty of the single number from the uncertainties of the measurement results in the third-octave or octave-bands from which the single number is derived. The other is the evaluation of procedures to establish the uncertainty budgets for every measurement result in the different frequency bands. Solving the first task it occurs that the Monte-Carlo method is well suited to be used with "shifting reference curve procedures" as they are related besides others to the airborne sound insulation index  $R_w$ . For the quantities to be used as European harmonized ones (f.i.  $RA_{1} = R_w + C$ ) a much simpler "linear calculation method" can be applied as well as the Monte-Carlo procedure. In order to find solutions for the second task results from several international Round Robins and also from national comparison measurements are gathered and analyzed. First results will be shown.

*The complete document was not available at the publication time. It has been replaced by the submitted abstract.*