

Abstract

Exact knowledge of chassis transmission paths is essential for an effective and purposeful interior noise /noise quality development process. One possible approach to obtain this required information is the application of a Transfer Path Analysis (TPA).

When applying this analysis method care has to be taken in choosing the appropriate algorithm and the corresponding setup. Therefore this paper first focuses on the most important errors concerning existing TPA methodologies and their consequences on the result, starting from difficulties in locating the excitation position of the applied forces via deviations in excitation direction up to differences in chassis temperatures.

Accordingly solutions for elimination or reduction of these errors are presented. Additionally a completely new TPA approach is introduced which is faster and more accurate than currently approved methods.