

Titel: NVH-analysis of energy conversion systems

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Text:

Nowadays, the comfort of products becomes more and more important. A major criterion that defines the perceived quality is the NVH-behavior. This includes noticeable structural vibrations as well as acoustic emissions and corresponding phenomena. In addition, legislative regulations due to noise emission are intensified. This is due to the fact, that noise is a serious problem of the modern society that significantly influences the healthiness of the population in a negative way. In this minisymposium all kinds of vibration phenomena as well as acoustic issues of energy conversion systems are addressed. Moreover, all types of energy conversion systems are in the focus of this minisymposium, for instance combustion and electric engines. Naturally, this also includes rotating systems. It has to be noted that these systems are not limited to automotive applications, any type of energy conversion system is possible, as for example wind turbines. Numerical as well as experimental investigations are welcome to achieve a fruitful synergy. One aim of this minisymposium is to consider all important influence parameters and interactions, which are important for a suitable description of the NVH-behavior within the simulation models. Consequently, holistic methodologies are in special focus. The numerical investigations are not limited to a particular method.