

## **Modified Error in Constitutive Relation and Its Application to Dynamic Tests with Corrupted Boundary Conditions**

**Pierre Feissel**, Olivier Allix

*LMT-Cachan ENS de Cachan, CNRS, Université Paris, France*

The aim of this work is to develop an identification strategy suitable for the identification of models dedicated to crash simulation. Due to the experimental difficulties, the method has to take into account the uncertainties of the measurements. Therefore, a method is proposed, based on the modified error in constitutive relation. Its principle is to split the quantities of the identification problem into two groups, one of the reliable quantities, that will be verified exactly, and one of the unreliable quantities, that will be only verified at best. First developed in the case of homogeneous elasticity, the strategy has been study in order to point out its two main points: taking the whole experimental information in one calculation and introducing a distance between the measurements and the simulation. this method appears to be very robust. Its extension to the case of heterogeneous elasticity gives various interesting examples.

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