

## **Analysing Joined Simulations of Car Body Vibrations and Air Pressure Volumes**

The simultaneous visualization of car body vibrations and of air pressure in the passenger compartment improves the car body design for passengers satisfaction. Thereby, interactive real-time representation requires enhanced techniques to handle the data size. We present a visualization system based upon virtual reality techniques. For volume approach virtual volume probes have been developed. The engineer has the possibility to put slices through the volume or to calculate growing isosurfaces. Parallel the vibrating car body is visible to detect the coherence to the volume.

Martin Schulz

IMMD 9, Computer Graphics Group  
University of Erlangen  
Am Weichselgarten 9  
91058 Erlangen  
Germany  
schulz@informatik.uni-erlangen.de

Manfred Weiler

IMMD 9, Computer Graphics Group  
University of Erlangen  
Am Weichselgarten 9  
91058 Erlangen  
Germany

Thomas Reuding

BMW AG  
Entwicklung Karosserie  
80788 Munich  
Germany  
Thomas.Reuding@bmw.de

Thomas Ertl

IMMD 9, Computer Graphics Group  
University of Erlangen  
Am Weichselgarten 9  
91058 Erlangen  
Germany  
ertl@informatik.uni-erlangen.de

