



Код: 10870

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## Local Interaction Simulation Approach for Temperature Effect Modelling in Lamb Wave Propagation

Дрезден, Германия, 2012 год

7 стр; формат: 23,5 x 16 см; библиографический список: 24 единицы

The paper explores the ability of numerical simulations for Lamb wave propagation in plates exposed to temperature fluctuations. The local interaction simulation approach is used for wave propagation modelling. The newly developed parallel computation technology - offered by modern Graphics Processing Units (GPUs) and Compute Unified Device Architecture (CUDA) used in low-cost graphical cards - is used in these numerical simulations. This allows for very efficient wave propagation simulation for various temperatures. Numerical simulation results can be used more effectively to develop new signal processing techniques to compensate for temperature effects.

Доклад. 6-я Европейская конференция по мониторингу технического состояния сооружений, 2012. Редакция Кристиана Боллера.

### Ключевые слова:

### Содержание

Abstract  
Introduction  
The local interaction simulation approach for lamb wave propagation  
Equivalent validation  
Numerical simulation and experimental tests  
Conclusions  
Acknowledgements