



Institut für
Angewandte Mathematik



Leibniz
Universität
Hannover

Institut für Angewandte Mathematik
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Oberseminar Numerik und Optimierung

**Roland Maier
(Uni Augsburg)**

Explicit computational wave propagation in micro-heterogeneous media

Using explicit time stepping schemes in the context of wave propagation is very popular due to simplicity and fast computations. However, stability can only be guaranteed if a so-called CFL condition holds that bounds the time step size with respect to the spatial mesh size. This is a severe restriction in case of micro-heterogeneous media where spatial finescale features need to be resolved. This talk shows how numerical homogenization in space both reduces the number of degrees of freedom in space and weakens the time step restriction.

**Mittwoch, 18.07.2018, 10:00 Uhr, Raum g005
Hauptgebäude der Leibniz Universität Hannover, Welfengarten 1**

Über Ihren Besuch würden sich freuen:

Prof. Dr. Marc Steinbach
Prof. Dr. Thomas Wick