

# **JAM Workshop on Computational PDEs**

## **Report of Contributions**

Contribution ID: **10**

Type: **not specified**

## **Dirk Praetorius (TU Wien)**

*Thursday 30 May 2024 14:00 (40 minutes)*

Optimal interplay of adaptive mesh-refinement and iterative solvers for elliptic PDEs

Contribution ID: **11**

Type: **not specified**

## **Timo Sprekeler (NUS Singapur)**

*Thursday 30 May 2024 16:45 (40 minutes)*

Homogenization of nondivergence-form PDEs with discontinuous coefficients: analysis and numerical methods

Contribution ID: 12

Type: **not specified**

## **Timo Neumeier (Augsburg)**

*Thursday 30 May 2024 15:45 (30 minutes)*

Numerical approximation of semiconvex envelopes for isotropic functions

Contribution ID: 13

Type: **not specified**

## Selina Burkhard (KIT)

*Thursday 30 May 2024 16:15 (30 minutes)*

Time-dependent electromagnetic scattering from dispersive material laws

Contribution ID: 14

Type: **not specified**

## Henry von Wahl (Jena)

*Thursday 30 May 2024 14:40 (30 minutes)*

talk

Contribution ID: **16**

Type: **not specified**

## **Lars Diening (Bielefeld)**

*Friday 31 May 2024 09:00 (40 minutes)*

Pointwise gradient estimate of the Ritz projection

Contribution ID: 17

Type: **not specified**

## Joscha Gedicke (Bonn)

*Friday 31 May 2024 09:40 (40 minutes)*

An equilibrated a posteriori error estimator for arbitrary-order Nédélec elements for magnetostatic problems



Contribution ID: **18**

Type: **not specified**

## **Tabea Tscherpel (Darmstadt)**

*Friday 31 May 2024 10:45 (40 minutes)*

Exactly divergence-free finite elements on curved domains

Contribution ID: **19**

Type: **not specified**

## **Robert Altmann (Magdeburg)**

*Friday 31 May 2024 11:25 (40 minutes)*

Decoupled Time Integration of Poroelasticity

Contribution ID: **20**

Type: **not specified**

## **Tim Buchholz (KIT)**

*Friday 31 May 2024 12:05 (30 minutes)*

A non-iterative domain decomposition integrator for the linear wave equation

Contribution ID: 21

Type: **not specified**

## **Philip Freese (TU Hamburg-Harburg)**

*Friday 31 May 2024 14:15 (30 minutes)*

Improving sub-mesoscale resolving ocean simulations

Contribution ID: 22

Type: **not specified**

## Daniel Eckhardt (KIT)

*Friday 31 May 2024 14:45 (30 minutes)*

An implicit-explicit time discretization scheme for semilinear wave equations with application to multiscale problems

Contribution ID: 23

Type: **not specified**

## Ngoc Tien Tran (Augsburg)

*Friday 31 May 2024 15:15 (30 minutes)*

Finite element methods for linear PDE of second order in nondivergence form

Contribution ID: 24

Type: **not specified**

## Florian Schneider (Leipzig)

*Sunday 2 June 2024 10:00 (20 minutes)*

Generalization of LOD method

Contribution ID: 25

Type: **not specified**

## **Felix Krumbiegel (KIT)**

*Sunday 2 June 2024 10:30 (20 minutes)*

A higher-order multiscale method for the heterogeneous wave equation



Contribution ID: 26

Type: **not specified**

## **Carsten Carstensen (HU Berlin)**

*Sunday 2 June 2024 11:00 (20 minutes)*

talk

Contribution ID: 27

Type: **not specified**

## Neela Nataraj (IIT Bombay)

*Sunday 2 June 2024 11:30 (20 minutes)*

Semi and fully-discrete analysis of lowest-order nonstandard finite element methods for the biharmonic wave problem

Contribution ID: 28

Type: **not specified**

## Diskussion

*Saturday 1 June 2024 10:00 (6 hours)*

Contribution ID: 29

Type: **not specified**

## **Roland Maier (KIT)**

*Sunday 2 June 2024 12:00 (20 minutes)*

Localized implicit time-stepping for the wave equation and connections to domain decomposition

Contribution ID: **30**

Type: **not specified**

## **Time for discussion (chaired by Daniel Peterseim)**

*Friday 31 May 2024 12:35 (25 minutes)*