

# 3rd Workshop on Parallel-in-Time Integration: Parallel multi-level methods in space and time

Jülich Supercomputing Centre, Forschungszentrum Jülich GmbH, Germany  
Building 16.4, Rotunda, May 26-28, 2014

<http://www.fz-juelich.de/ias/jsc/pintws2014>



## Monday, May 26, 2014

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| 12:00 - 13:45 | Lunch + Registration   |
| 13:45 - 14:00 | Opening + Welcome  |
| 14:00 - 15:00 | <b>Martin Gander</b> , University of Geneva (Switzerland)<br><i>The History of Time Parallel Methods</i>   |
| 15:00 - 15:30 | Coffee break   |
| 15:30 - 16:00 | <b>Giovanni Samaey</b> , KU Leuven (Belgium)<br><i>A Micro-Macro Parareal Algorithm: Application to Singularly Perturbed Ordinary Differential Equations</i> |
| 16:00 - 16:30 | <b>Toshiya Takami</b> , Kyushu University (Japan)<br><i>Identity Parareal Method and Its Performance</i>   |

**Tuesday, May 27, 2014**

- 09:00 - 10:00      **Scott MacLachlan**, Tufts University (USA)  
*Multigrid Reduction Techniques For Parallel-In-Time Integration*
- 10:00 - 10:30      Coffee break
- 10:30 - 11:00      **Jacob Schroder**, Lawrence Livermore National Laboratory (USA)  
*Multigrid Reduction in Time: A Flexible and Non-Intrusive Method*
- 11:00 - 11:30      **Felix Kwok**, University of Geneva (Switzerland)  
*Schwarz Methods for the Time-Parallel Solution of Parabolic Control Problems*
- 11:30 - 12:00      **Nabil Nassif**, American University of Beirut (Lebanon)  
*Comparing the Parareal and the Adaptive Parallel Time Integration (APTI) methods for a Satellite Problem*
- 12:00 - 14:00      Lunch + Photo
- 14:00 - 15:00      **Open Questions Session**
- 15:00 - 15:30      Coffee break
- 15:30 - 16:00      **Vadim Lisitsa**, IPGG SB RAS (Russia)  
*Combining Finite Differences and Discontinuous Galerkin method for simulation of seismic waves propagation*
- 16:00 - 16:30      **Marek Behr**, RWTH Aachen (Germany)  
*Space-Time Finite Elements and Non-Uniform Temporal Refinement*
- 16:30 - 17:45      Individual Meetings
- 19:00 - 22:00      Workshop Dinner, Burg Obbendorf, Hambach  
<http://www.burgobbendorf.de/index.html>

**Wednesday, May 28, 2014**

- 09:00 - 10:00      **Kees Oosterlee**, CWI Amsterdam, (The Netherlands)  
*Handling with the time-wise dimension by Fourier techniques, Backward Stochastic Differential Equations and Graphics Processing Unit*
- 10:00 - 10:30      Coffee break
- 10:30 - 11:00      **Stefan Findeisen**, Karlsruhe Institute of Technology (Germany)  
*First step towards Parallel and Adaptive space-time Computation of Maxwell's Equations*
- 11:00 - 11:30      **Uwe Köcher**, Helmut Schmidt University (Germany)  
*Variational Space-Time Methods for the Elastic Wave Equation*
- 11:30 - 12:00      **Konstantinos Ioakimidis**, University of Stuttgart (Germany)  
*Parallel in Time simulation of the Navier-Stokes equations using the Finite Element Method*
- 12:00 - 14:00      Lunch + Tours
- 14:00 - 15:00      **Matt Emmett**, Lawrence Berkeley National Laboratory (USA)  
*Timing and performance of PFASST*
- 15:00 - 15:30      Coffee break
- 15:30 - 16:00      **Dieter Moser**, Forschungszentrum Jülich (Germany)  
*PyPinT - Towards a framework for rapid prototyping of iterative parallel-in-time algorithms*
- 16:00 - 16:30      **Michael Klöppel**, TU Dresden (Germany)  
*Using time-parallel methods for the simulation of a machine tool*
- 16:30 - 16:45      Closing + Farewell