



## Workshop on Reduced Basis Methods

### University of Ulm, 7./8.12.2010

### University of Ulm, Senatssaal, Helmholtzstr. 16

**Tuesday, 07.12.2010**

17:00 Hans-Kupczyk-Award to Professor Dr. Anthony T. Patera  
*Smartphone as Supercomputer Surrogate: In-Situ Scientific Simulation*

**Wednesday, 08.12.2010**

08:30 Opening

08:40 – 09:25

Gianluigi Rozza, EPFL Lausanne  
*RBM for the simulation and optimization of haemodynamics problems*

09:25 – 09:55

Bernard Haasdonk, Univ. Stuttgart  
*Reduced Basis-Methods for Variational Inequalities*

09:55 – 10:20

Stefan Volkwein, Univ. Konstanz  
*POD Basis Computation for Nonlinear Optimal Control Problems*

10:20 – 10:50 Coffee Break

10:50 – 11:20

Clemens-August Thole, Fraunhofer SCAI, Sankt Augustin  
*Comparative Mode Analysis for Crash Simulation Results*

11:20 – 11:45

Kathrin Smetana, Univ. Münster  
*A new problem adapted hierarchical model reduction technique based on reduced basis methods and dimensional splitting*

11:45 – 12:10

Martin Drohmann, Univ. Münster  
*Software concepts for coupled detailed and reduced simulations*

12:10 – 12:35

Anna-Lena Gerner, RWTH Aachen  
*RB Approximation and Error Estimation for Saddle Point Problems: Application to the Stokes Equations*

12:35 – 14:00 Lunch Break

14:00 – 14:25

Nadine Jung, TU München  
*MOR and Error Estimator for the Parameter-Dependent Eddy Current Equation*

14:25 – 14:50

Timo Tonn, Univ. Ulm  
*Efficient Approximation of Non-Affine Forms within the RBM*

14:50 – 15:15

Bernhard Wieland, Univ. Ulm  
*Reduced Basis Methods for problems with stochastic influences*

15:15 – 15:40

Kristina Steih, Univ. Ulm  
*Reduced Basis Methods for time-periodic evolution problems*

15:40 Closing

Organizers: M. Grepl, K. Veroy-Grepl (Aachen), B. Haasdonk (Stuttgart), M. Ohlberger (Münster), K. Urban (Ulm),  
 S. Volkwein (Konstanz)

