

Monday, August 11

- 12:00 – 13:45 Registration
13:45 – 14:00 Welcome
14:00 – 15:00 Invited talk by **Marquardt** (Aachen)
Higher Order Derivatives in Computational Systems Engineering Problems Solving
15:00 – 15:30 **Monet** (Berlin), Lamour, Griewank
Index Determination in DAEs Using the Library indexdet and the ADOL-C Package for Algorithmic Differentiation
15:30 – 16:00 Coffee break
16:00 – 16:30 **Stumm** (Dresden), Walther, Riehme, Naumann
Structure-Exploiting Automatic Differentiation of Finite Element Discretizations
16:30 – 17:00 **Guerriri** (Washington), Bastani
On the Application of Automatic Differentiation to the Likelihood Function for Dynamic General Equilibrium Models
17:00 – 17:30 **Gebremedhin** (Norfolk), Pothen, Walther
Exploiting Sparsity in Jacobian Computation via Coloring and Automatic Differentiation: A Case Study in a Simulated Moving Bed Process

Tuesday, August 12

- 09:00 – 10:00 Invited talk by **Pothen** (Norfolk)
Automatic Differentiation and Combinatorics: An Accidental Partnership?
10:00 – 10:30 **Giles** (Oxford)
Collected Matrix Derivative Results for Forward and Reverse Mode Algorithmic Differentiation
10:30 – 11:00 **Naumann** (Aachen)
Call Tree Reversal is NP-Complete
11:00 – 11:30 Coffee break
11:30 – 12:00 **Bell** (Seattle), Burke
Algorithmic Differentiation of Implicit Functions and Optimal Values
12:00 – 12:30 **Lejeune** (Metz), Charpentier, Potier-Ferry
The Diamant Approach for an Efficient Automatic Differentiation of the Asymptotic Numerical Method
12:30 – 13:00 **Petera** (Aachen), Bückner, Vehreschild
Code Optimization Techniques in Source Transformations for Interpreted Languages
13:00 – 14:30 Lunch Break

- 14:30 – 15:00 **Riehme** (Hatfield), Walther, Stiller, Naumann
Adjoint for Time-Dependent Optimal Control
15:00 – 15:30 **Pascual** (Sophia-Antipolis), Hascoët
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15:30 – 16:00 Coffee Break
16:00 – 17:30 Poster Session
18:00 – 19:30 Social Event
Arithmeum

Wednesday, August 13

- 09:00 – 10:00 Invited talk by **Terboven**
OpenMP in the Multicore Era
10:00 – 10:30 **Grabner** (Graz), Pock, Gross, Kainz
Automatic Differentiation for GPU-Accelerated 2D/3D Registration
10:30 – 11:00 **Phipps** (Albuquerque), Bartlett, Gay, Hoekstra
Large-Scale Transient Sensitivity Analysis of a Radiation-Damaged Bipolar Junction Transistor via Automatic Differentiation
11:00 – 11:30 Coffee Break
11:30 – 12:00 **Zaoui** (Versailles)
Large Electrical Power Systems Optimization Using Automatic Differentiation
12:00 – 12:30 **Müller** (London), Jaworski
Toward Modular Multigrid Design Optimisation
12:30 – 13:00 **Forth** (Shrivenham), Padulo, Guenov
Robust Aircraft Conceptual Design Using Automatic Differentiation in Matlab
13:00 – 14:30 Lunch Break
14:30 – 15:00 **Kubota** (Tokio)
Combinatorial Computation with Automatic Differentiation
15:00 – 15:30 **Vehreschild** (Aachen), Bückner
Coping with a Variable Number of Arguments when Transforming MATLAB Programs
15:30 – 16:00 **Elsheikh** (Siegen), Wiechert
Automatic Sensitivity Analysis of DAE-systems Generated from Equation-Based Modeling Languages
16:00 –
Social Event
Guided tour: Bonn downtown