Lazarov Raytcho
Texas A&M University, USA
Petrov-Galerkin Finite Element Method for Fractional Convection-Diffusion Equations

Ragnar Winther
University of Oslo, Norway
Geometric decomposition of finite element spaces

Roland Glowinski
University of Houston, USA
On the Motion of Rigid Solid Particles in Incompressible Visco-Elastic Liquids: A Numerical Approach

Markus Melenk
TU Vienna, Austria
Directional H2-matrices for Helmholtz integral operators

Yuri Kuznetsov
Institute of Numerical Mathematics, Russia; University of Houston, USA
Nonconforming Mixed FE Methods on Polyhedral Meshes

Carsten Carstensen
Humboldt University, Germany
Axioms of Adaptivity: Rate optimality of adaptive algorithms with separate marking

Stefan Sauter
University of Zurich, Switzerland
Wave-Number Explicit Convergence Analysis for Galerkin-type discretizations of the Helmholtz equation

Jun Zou
The Chinese University of Hong Kong   Professor, China
Efficient Preconditioners for Edge Element Systems for Various Maxwell Equations

Boris Khoromskij
Max-Plank Intitute, Germany
Rank-structured tensor approximation of multi-dimensional PDEs

Rolf Stenberg
Aalto University, Finland
Stabilized Mixed Finite Elements

Roderick Melnik
Wilfrid Laurier University, Canada

Coupled Mathematical Models and Multiscale Phenomena at the Nanoscale with Their Applications

<p style="text-align:center"><strong style="color:red">Contributed talks</p>

Fahhad Alharbi
Hamad bin Khalifa University, Qatar
High Order Real-space Techniques for Atomistic Calculations

Thomas Apel
Universität der Bundeswehr München, Germany
Discretization Error Estimates for Dirichlet Control Problems in Polygonal Domains

Giorgio Bornia
Texas Tech University, USA
Fluid-structure Interaction Solvers of Newton-Krylov Type with Multigrid Preconditioning

Irina Burova
Saint Petersburg State University, Russia
Interval Estimation of Polynomial Splines of the Fifth Order

Yuri Demýanovich
Saint Petersburg State University, Russia
Orthogonal Basis in Spline-wavelet Decomposition of the Numerical Flow

István Faragó
Eötvös Loránd University Budapest, Hungary
Mathematical Models of Spatial Disease Propagation and their Qualitative Properties

Seiji Fujino
Kyushu University, Japan
Improvement of Parallelism of E-ssor Precondition Using Strategy of Cache-Cache Elements Technique

Pawel Gora
Concordia University, Canada
A Two-dimensional Family of Transformations with Very Diverse Behavior

Friederike Hellwig
Humboldt-Universität zu Berlin, Germany
Low-Order dPG-FEMs for Linear Elasticity

Christoph Hofer
Johannes Kepler University Linz, Austria
Dual-Primal Tearing and Interconnecting Methods for Continuous and Discontinuous Galerkin Isogeometric Analysis

Chengming Huang
Huazhong University of Science and Technology, China
Delay-dependent Stability of Runge-Kutta Time Discretizations for Partial Differential Equations
With Delay

Kab Seok Kang
Max-Planck-Institut fuer Plasmaphysik, HLST Core Team, Germany
Multigrid Solver in Bout++

Reijo Kouhia
Tampere University of Technology, Finland
Experiences of the Time-discontinuous Galerkin Method in the Problems of Structural Mechanics

Alexander Lapin
Kazan Federal University
Domain decomposition and Uzawa-type iterative solution methods for variational inequalities

Oluwaseun Lijoka
Heriot Watt University Edinburgh, Scotland
Trefftz Space-time Discontinuous Galerkin Method for the Wave Equation in Time Domain

Piotr Matus
The John Paul II Catholic University of Lublin, Poland
Exact finite-difference schemes

Sanna Mönkölä
University of Jyväskylä, Finland
High-Quality Discretizations for Electromagnetics

Rainer Picard
TU Dresden, Germany
On Some Models of Thermo-Piezo-Electro-Magnetism

Johannes Pfefferer
Technical University of Munich, Germany
Adapted Numerical Methods for the Poisson Equation with Non-Smooth Boundary Data and
Emphasis on Non-Convex Domains

Irina Raichik
Bar-Ilan University, Israel
Numerical Approximation of a 3D Singular Electromagnetic Fields by a Variational Method

Sergejs Rogovs
Universität der Bundeswehr München, Germany

Maximum Norm Estimates with Application to Neumann Boundary Control Problems

Ioannis Toulopoulos
Johann Radon Institute for Computational and Applied Mathematics, Austria
Discontinuous Galerkin Isogeometric Analysis of Elliptic Diffusion Problems on Segmentations with Gaps and Overlaps

Vladimir Vasilyev
Lipetsk State Technical University, Russia
Discrete Operators, Factorization, Boundary Value Problems and Numerical Analysis

Daniel Walter
Technische Universitat Munchen
Algorithmic solution of sparse sensorlocation problems

Max Winkler
Universität der Bundeswehr München, Germany
Superconvergence Results for Neumann Boundary Control Problems on Locally Refined Meshes

Alexander Zlotnik
National Research University Higher School of Economics
On Conservative Spatial Discretizations for Quasi-Gasdynamic Systems of Equations

MS 1: Numerical Methods for Fractional Order PDEs.
Organized by Prof. Petr Vabishchevich (Nuclear Safety Institute of RAS, Moscow) and Prof. Raytcho Lazarov (Texas A&M University).

Anatoly Alikhanov
Institute of Applied Mathematics and Automation, Russia
A Difference Scheme for the Tempered Time Fractional Diffusion Equation

Petr Vabishchevich
Nuclear Safety Institute (RAS), Russia
Numerical solution of boundary value problems with fractional boundary conditions

Fazal Haq
Hazara University Mansehra
Numerical Solution of Fractional Order Model of HIV-1 Infection of CD4+ T-cells by Using Laplace Adomian Decomposition Method

Kotapally Harish
Indian Institute of Technology Indore, India
A Pseudo Spectral Modified Quasilinearization for Fractional Perturbation-differential Equations

Joseph Pasciak
Texas A&M University, USA
Numerical Approximation of a Variational Problem on a Bounded Domain Involving the Fractional Laplacian

Aiguo Xiao
Xiantang University, China
Dissipativity and Contractivity of Fractional-order Systems and Their Numerical Simulation

Sergey Piskarev
Lomonosov Moscow State University, Russia
Fractional Equations and difference schemes

Yücel Çenesiz
Selcuk University, Turkey
Approximate Analytical Solution of Sharma-Tasso-Olver and Burgers-KDV Equations with Homotopy Analysis Method and Conformable Fractional Derivative

MS 2: Reliable Computational Methods.

Organized by Prof. Sergey Repin (V.A. Steklov Institute of Mathematics, St. Petersburg) and Prof. Neittaanmäki (University of Jyväskylä).

Stefka Dimova
Sofia University, Bulgaria
Nonsymmetric and Nonstandard Galerkin Methods for Nonlinear Problems

Maxim Frolov
Peter the Great St. Petersburg Polytechnic University, Russia
Implementation of a Functional-type a Posteriori Error Estimate for Reissner-Mindlin plates

Svetlana Matculevich
RICAM, Austria
A Posteriori Error Estimates for a Poroelastic Medium

Nokka Marjaana
University of Jyvaskyla, Finland
A Posteriori Error Bounds for Approximations of the Stokes Problem with Nonlinear Boundary Conditions

Stanislav Sysala
Institute of Geonics, Czech Academy of Sciences, Czech Rep.
Reliable Computational Methods in Limit Analysis of Elastic-Perfectly Plastic Bodies

Jan Valdman
JCU Ceske Budejovice and UTIA Prague, Czech Republic
A FEM Approximation of a Two-phase Obstacle Problem and its a Posteriori Error Estimate

Steffen Weisser
Universität des Saarlandes, Germany
Reliable and Efficient a Posteriori Error Control for Bem-based Fem on Polygonal Meshes

MS 3: Galerkin Methods for Nonlinear Problems.
Organized by Dr. Omar Lakkis (University of Sussex).

Omar Lakkis
University of Sussex
A Galerkin method for the Monge–Ampère problem with transport boundary conditions

Marco Agnese
Imperial College London, United Kingdom
Fitted Ale Scheme for Two-phase Navier-Stokes Flow

Manuel Borregales
University of Bergen, Norway
Numerical Convergence of Iterative Coupling for Non-linear Biot's Model

Radim Hošek
Czech Academy of Sciences, Czech Rep.
Convergent finite difference scheme for compressible Navier-Stokes in three spatial dimensions

Morufu Olayiwola
College of Science, Engineering and Technology, Nigeria
The Variational Iteration Method for Solving Linear and Nonlinear Problems that Arise in Mathematical Physics

Nail Yamaleev
Old Dominion University, USA
Entropy Stable Weno Spectral Collocation Schemes for the Navier-Stokes Equations

Denis Schadisnkii
Institute of Mathematics of The National Academy of Sciences of Belarus, Belarus
Conservation Laws in Blow-up Problems for Nonlinear Parabolic Equations

Martin Lind
Karlstad University
A priori feedback estimates for multiscale reaction-diffusion systems

Daniele Boffi
Università di Pavia, Italy
Adaptive finite element schemes for eigenvalue problems: from mixed laplacian to Maxwell's equations

Gallistl Dietmar
Universität Bonn, Germany
Approximation of Polyharmonic Eigenvalue Problems

Arbaz Khan
University of Heidelberg, Germany
Arnold-Winther Mixed Finite Elements for Stokes Eigen Value Problems

Patrick Kürschner
Max-Planck Institute, Germany
Inexact and preconditioned linear solves in iterative eigenvalue methods
Önder Türk
Gebze Technical University, Turkey
A Stabilized Finite Element Method for the Two-field and Three-field Stokes Eigenvalue Problems

Harri Hakula
Aalto University, Finland
A Posteriori Estimates for Eigenproblems Using Auxiliary Subspace Techniques

Antti Hannukainen
Aalto University, Finland
On a Priori Error Estimates for Eigenvalue Problems

MS 5: Tensor numerical approximation of multi-dimensional functions, operators and PDEs. Organized by Prof. Boris Khoromskij (MPI MIS, Leipzig) and Prof. Martin Stoll (MPI DCTS, Magdeburg).

Sergey Dolgov
Uni. Bath, UK
A combination of Alternating Least Squares and low-rank cross approximation for solution of parametric PDEs

Venera Khoromskaia
MPI MIS, Leipzig, Germany
Tensor-structured Method for Fast Calculation of the Excitation Energies for Compact Molecules

Angelos Mantzaflaris
RICAM, Linz, Austria
USING TENSOR DECOMPOSITION IN ISOGEOMETRIC ANALYSIS

Akwum Onwunta
MPI DCTS, Magdeburg, Germany
Fast Solvers for Optimal Control Problems Constrained by PDEs with Uncertain Inputs

Kuniyoshi Abe
Gifu Shotoku University, Japan
On Mister R Method for Solving Linear Equations with Symmetric Matrices

Andreas Hahn
Otto-von-Guericke University, Germany
ALE-FEM for Incompressible Flows and Transport Problems

MS 6: Recent developments on computational electromagnetism and related applications. Organized by Prof. Dirk Pauly (University of Duisburg-Essen, Germany) and Prof. Jun Zou (The Chinese University of Hong Kong).

Eric Chung
The Chinese university of Hong Kong
Staggered Discontinuous Galerkin Methods for Maxwell's Equations

Dirk Pauly
University of Duisburg-Essen, Germany
Non-standard Partial Integration: Implications to Maxwell and Korn Inequalities

Haijun Wu
Nanjing University, China
Finite Element Method for Nonlinear Helmholtz Equation with High Wave Number

Weiying Zheng
Academy of Mathematics and Systems Science, Chinese Academy of Sciences
Perfectly Matched Layer Method for Electromagnetic Scattering Problems in Layered Media

Vera Bommer
Universtität Duisburg-Essen, Germany
Numerical Analysis for the Optimal Control of the Time-Dependent Maxwell's Equations

Mourad Sini
Austrian Academy of Sciences, Austria
Gröger-Meyers's Estimate and Justification of the Enclosure Method for the Maxwell System

Jun Zou
The Chinese University of Hong Kong   Professor, China
Adaptive Fems for Inverse Problems

Yifeng Xu
Shanghai Normal University, China
A Convergent Adaptive Finite Element Method for Cathodic Protection

MS 7: Numerical methods for time-dependent transportation and optimal control problems. Organized by Dr. Monika Wolfmayr (RICAM, Linz).

Monika Wolfmayr
RICAM, Austria
Optimal Control Models in Pedestrian Dynamics

Romana Boiger
Alpen-Adria-Universität Klagenfurt, Austria
Profile likelihood calculation for time-dependent PDE constrained parameter estimation problems

Adriano Festa
RICAM - Austrian Academy of Sciences (ÖAW), Austria
A Discrete Hughes' Model for Pedestrian Flow on Graphs

Dante Kalise
Radon Institute for Computational and Applied Mathematics (RICAM), Austria
Optimal Feedback Control of Nonlinear Parabolic Equations

Giacomo Albi
Technische Universität München, Germany
Binary interaction approximation for mean-field optimal control problems

Axel Kröner
INRIA Saclay, and CMAP, Ecole polytechnique, France
Optimal Control of Infinite Dimensional Bilinear Systems: Applications to the Heat, Wave, and Schrödinger Equations

SS Recent Developments in Differential Equations and Their Applications

Galip Oturanc
Selcuk University, Turkey
Reduced Differential transform method with fixed grid size for solving telegraph equations

Betul Ayse Koc
Selcuk University, Turkey
New Operational Matrix Scheme for Differential Equations

Muammer Ayata
Selcuk University, Turkey
Operational Matrix Method for Solving Two Point Boundary Value Problems

Hatice Kübra Duru and MSc. Durmus Bozkurt
Selcuk University, Turkey
Integer Powers of Certain Complex Pentadiagonal 2 – Toeplitz Matrices

Sema Servi
Selcuk University, Turkey
Numerical Solution of wave equations by reduced differential transform method with fixed grid size