

PROGRAM at a Glance

WEDNESDAY JUNE 4							
9:00 - 11:30	Registration in Tartu						
11:30 - 12:30	Buses Tartu–Kääriku						
13:30 - 14:30	Lunch						
15:00 - 15:10	Opening						
15:10 - 15:50	Plenary talk: I. H. Sloan						R1
15:50 - 16:30	Plenary talk: I. G. Graham						R1
16:50 - 17:30	Plenary talk: H. Brunner						R1
17:30 - 18:10	Plenary talk: G. Vainikko						R1
20:00	Banquet						
THURSDAY JUNE 5							
9:00 - 10:00	Mod1	R1	Splines1	R2	PDE1	R3	Operators R4
10:20 - 11:20	Mod2	R1	Splines2	R2	PDE2	R3	ODE1 R4
11:40 - 12:20	Plenary talk: Z. Jackiewicz						R1
12:20 - 13:00	Plenary talk: R. Čiegis						R1
13:00 - 14:00	Lunch						
14:30 - 15:50	Mod3	R1	IE1	R2	PDE3	R3	ODE2 R4
16:10 - 17:10	Mod4	R1	IE2	R2	PDE4	R3	ODE3 R4
17:20 - 18:20	Supper						
19:00 - 20:30	Sport						
20:30 - 24:00	Sauna						
FRIDAY JUNE 6							
9:00 - 9:40	Plenary talk: Z. Nashed						R1
9:40 - 10:20	Plenary talk: V. Vasin						R1
10:40 - 11:20	Plenary talk: S. Lu, S. V. Pereverzev						R1
11:20 - 12:00	Plenary talk: U. Tautenhahn						R1
12:20 - 13:20	Mod5	R1	Transforms	R2	Optimization	R3	Analysis1 R4
13:30 - 14:30	Lunch						
15:00	Excursion						
20:00	Supper						
SATURDAY JUNE 7							
9:00 - 10:20	Mod6	R1	IPP1	R2	PDE5	R3	Analysis2 R4
10:40 - 11:40	Mod7	R1	IPP2	R2	PDE6	R3	
12:00 - 12:40	Plenary talk: A. Buikis						R1
12:40 - 12:50	Closing						
12:50 - 13:50	Lunch						
14:15	Buses to Tartu						

WEDNESDAY JUNE 4

9:00 - 11:30	Registration	
11:30 - 12:30	Buses Tartu–Kääriku	
13:30 - 14:30	Lunch	
15:00 - 15:10	Opening	
15:10 - 15:50	Plenary talk: I. H. Sloan University of New South Wales, Sydney (Australia) <i>The best of both worlds: hybrid approximation on the sphere</i>	R1
15:50 - 16:30	Plenary talk: I. G. Graham University of Bath, Bath (UK) <i>Robust boundary integral methods in high frequency acoustic scattering</i>	R1
16:30 - 16:50	Coffee break	
16:50 - 17:30	Plenary talk: H. Brunner Memorial University of Newfoundland, St. John's (Canada) Hong Kong Baptist University, Hong Kong (China) <i>Superconvergence in collocation solutions for Volterra functional equations with vanishing delays</i>	R1
17:30 - 18:10	Plenary talk: G. Vainikko University of Tartu, Tartu (Estonia) <i>Cardinal interpolation by splines of functions on an interval</i>	R1
	Bus Kääriku–Tehvandi 18.15 Bus Tehvandi–Kääriku 19.30	
20:00	Banquet	

THURSDAY JUNE 5

8:00 - 9:00	Breakfast	
9:00 - 10:00	Section: Modelling (Mod1)	R1
	K. Birgelis. <i>On a gradient formula for an optimal control problem of conductive-radiative heta transfer</i>	
	Y. Manoli, M. Romanovas , M. Trächtler. <i>Application of fractional sensor fusion algorithms for inertial mems sensing</i>	
	M. Morzyński, P. Posadzy, R. Roszak , W. Stankiewicz. <i>Aeroelastic simulations for large scale complex geometry and nonlinear properties of structural model</i>	
9:00 - 10:00	Section: Splines (Splines1)	R2
	S. Asmuss, J. Breidaks, N. Budkina. <i>On approximation of a histogram by smoothing splines with boundary conditions</i>	
	E. Leetma , P. Oja. <i>Connection between smoothing problems with obstacles and weights</i>	
	E. Leetma, P. Oja . <i>Connection between classical smoothing problems with obstacles and weights</i>	
9:00 - 10:00	Section: Partial Differential Equations (PDE1)	R3
	Y. Apakov , B. Irgashev. <i>The second boundary value problem for the third order equation with multiple characteristics and having the first order degeneration</i>	
	Y. Kondratyuk. <i>Optimal adaptive finite element methods for computational mechanics</i>	
	P. A. Krutitskii. <i>The Dirichlet problem in a cracked domain</i>	
9:00 - 10:00	Section: Operators and Equations (Operators)	R4
	O. Nevanlinna. <i>Resolvent and polynomial hull</i>	
	S. Piskarev. <i>Approximation of evolution equations</i>	
	V. Turunen. <i>Pseudo-differential operators and symmetries</i>	
10:00 - 10:20	Coffee break	
10:20 - 11:20	Section: Modelling (Mod2)	R1
	Y. Knyazikhin. <i>Estimation of land biophysical parameters from space measurement</i>	
	A. Marshak. <i>Atmospheric radiative transfer for satellite remote sensing</i>	
	M. Morzyński, B. R. Noack, R. Roszak, W. Stankiewicz , F. Thiele. <i>Stability properties and continuous mode interpolation for flow around NACA-0012 airfoil at different angles of attack</i>	
10:20 - 11:20	Section: Splines (Splines2)	R2
	V. Dolnikov , N. Strelkov. <i>Asymptotical behaviour of interpolation splines and Shannon-Kotelnikov theorem</i>	
	M. Fischer, E. Ideon , P. Oja. <i>Rational spline collocation for boundary value problems</i>	
	N. Strelkov. <i>Superconvergence of interpolation splines and Bernoulli polynomials</i>	

10:20 - 11:20	Section: Partial Differential Equations (PDE2) R. Čiegis, I. Laukaitytė , M. Lichtner, M. Radziunas. <i>Parallel numerical algorithm for the traveling wave model</i> J. Janno . <i>Reconstruction of memory kernels in a parabolic transmission problem</i> D. Žaime . <i>Implicit propagator difference scheme for ADR equation</i>	R3
10:20 - 11:20	Section: Ordinary Differential Equations (ODE1) S. Atslega . <i>On solutions of Liénard type equation $x'' + f(x)x'^2 + g(x) = 0$ with polynomial coefficients</i> T. Garbuza . <i>On the nonlinear boundary value problem for sixth order ODE</i> N. J. Ford, P. M. Lima , P. M. Lumb, M. F. Teodoro. <i>Analysis and numerical investigation of forward-backward equations</i>	R4
11:20 - 11:40	Coffee break	
11:40 - 12:20	Plenary talk: Z. Jackiewicz Arizona State University, Tempe (USA) <i>Numerical solution of threshold problems in epidemics and population dynamics</i>	R1
12:20 - 13:00	Plenary talk: R. Čiegis Vilnius Gediminas Technical University, Vilnius (Lithuania) <i>On numerical algorithms for hyperbolic heat conduction problem</i>	R1
13:00 - 14:00	Lunch	
14:30 - 15:50	Section: Modelling (Mod3) A. Buikis , L. Buligins, H. Kalis. <i>Mathematical modelling of alternating electromagnetic and hydrodynamic fields induced by bar type conductors in a cylinder</i> M. Morzyński, M. Rychlik , W. Stankiewicz. <i>Human face coding using the PCA method: 3D biometric description</i> M. Vilbaste . <i>Concentration field of water-vapour in a circular hole due to concentration gradients and bulk flow of dry gas</i> I. Kostin, G. Panasenko . <i>Khokhlov-Zabolotskaya-Kuznetsov type equation in heterogeneous media</i>	R1
14:30 - 15:50	Section: Integral Equations (IE1) J. Peradze . <i>An approximation method of solving the Kirchhoff integro-differential equation</i> M. Kolk , A. Pedas. <i>Numerical solution of weakly singular Volterra integral equations</i> T. Diogo , P. Lima, M. Rebelo. <i>Numerical solution of a nonlinear singular Volterra equation using graded meshes</i> R. Pallav , A. Pedas. <i>Smoothing and quadratic spline collocation for weakly singular Fredholm integral equations</i>	R2
14:30 - 15:50	Section: Partial Differential Equations (PDE3) J. Jachimavičienė , M. Sapagovas. <i>The stability of finite-difference schemes for pseudoparabolic equation with nonlocal conditions</i> Ž. Jesevičiūtė , M. Sapagovas. <i>On the stability of difference schemes for parabolic equation with integral condition</i> R. Čiupaila , K. Jakubėlienė, M. Sapagovas. <i>The finite-difference method for two-dimensional parabolic equation with integral condition</i> M. Sapagovas, O. Štikonienė . <i>Alternating direction method for Poisson equation with integral condition</i>	R3

THURSDAY JUNE 5

14:30 - 15:50	<p>Section: Ordinary Differential Equations (ODE2)</p> <p>A. Gritsans, F. Sadyrbaev. <i>Nonlinear spectra: the Neumann problem</i></p> <p>N. Sergejeva. <i>On nonlinear spectra</i></p> <p>J. Cepītis, H. Kalis, A. Reinfelds. <i>Numerical investigations of single mode gyrotron equation</i></p> <p>I. Yermachenko. <i>Two-point boundary value problems at resonance</i></p>	R4
15:50 - 16:10	Coffee break	
16:10 - 17:10	<p>Section: Modelling (Mod4)</p> <p>O. V. Matusevich, V. A. Trofimov, E. A. Yudina. <i>Conservative finite-difference schemes for third harmonic generation of femtosecond pulse</i></p> <p>A. Buikis, H.-D. Liess, R. Vilums. <i>Quasi-linear mathematical model of electro-welding process for wires</i></p> <p>E. Barsky, M. Buikis. <i>Evaluation of the quality separation processes</i></p>	R1
16:10 - 17:10	<p>Section: Integral Equations (IE2)</p> <p>K. Orav-Puurand, A. Pedas, G. Vainikko. <i>A numerical method for weakly singular Fredholm integral equations</i></p> <p>I. Kangro, R. Kangro. <i>On fully discrete collocation methods for solving weakly singular integral and integro-differential equations</i></p> <p>E. Semenova, S. Solodky. <i>Accuracy of fully discrete projection method for Symm's integral equation</i></p>	R2
16:10 - 17:10	<p>Section: Partial Differential Equations (PDE4)</p> <p>F. J. Gaspar, J. L. Gracia, F. J. Lisbona, C. W. Oosterlee. <i>Distributive smoother for dominating grad-div problems</i></p> <p>F. J. Gaspar, J. L. Gracia, F. J. Lisbona, C. Rodrigo. <i>On geometric multigrid methods for triangular grids using three-coarsening strategy</i></p> <p>F. J. Gaspar, J. L. Gracia, F. J. Lisbona, C. Rodrigo. <i>Geometric multigrid methods for systems of partial differential equations on triangular grids</i></p>	R3
16:10 - 17:10	<p>Section: Ordinary Differential Equations (ODE3)</p> <p>S. Pečiulytė, A. Štikonas. <i>Critical points of the characteristic function for problems with various types nonlocal boundary conditions</i></p> <p>S. Roman, A. Štikonas. <i>Green function for problems with various types nonlocal boundary conditions</i></p> <p>A. Štikonas. <i>Stationary problems with various types nonlocal boundary conditions</i></p>	R4
17:20 - 18:20	Supper	
	Bus Kääriku–Tehvandi, Tehvandi–Kääriku	
19:00 - 20:30	Sport	
20:30 - 24:00	Sauna	

FRIDAY JUNE 6

8:00 - 9:00	Breakfast	
9:00 - 9:40	Plenary talk: Z. Nashed University of Central Florida, Orlando (USA) <i>Slant differentiability and semismooth methods for operator equations</i>	R1
9:40 - 10:20	Plenary talk: V. Vasin Institute Mathematics and Mechanics, Ekaterinburg (Russia) <i>Tikhonov regularization with nondifferentiable stabilizers for approximation of nonsmooth solutions to ill-posed problems</i>	R1
10:20 - 10:40	Coffee break	
10:40 - 11:20	Plenary talk: S. Lu, S. V. Pereverzev , Johann Radon Institute, Linz (Austria) <i>Sparsity reconstruction by the standard Tikhonov regularization</i>	R1
11:20 - 12:00	Plenary talk: U. Tautenhahn University of Applied Sciences, Zittau/Grlitz (Germany) <i>Regularization of ill-posed problems with noisy right hand side and noisy operator</i>	R1
12:00 - 12:20	Coffee break	
12:20 - 13:20	Section: Modelling (Mod5) M. A. Ranta. <i>Practical application of a flight parabola</i> M. Meilunas, J. Rokicki , A. Usinskas. <i>A step-wise skeletonization algorithm in human brain images</i> W. Hamelinck. <i>The combined effect of numerical integration and boundary approximation on Maxwell eigenvalue problems</i>	R1
12:20 - 13:20	Section: Transformations (Trans) F. Brackx, N. De Schepper , F. Sommen. <i>Multi-dimensional continuous wavelet transforms in Clifford analysis</i> J. Keiner. <i>Fast polynomial transforms</i> A. Vollrath. <i>Nonequispaced fast $so(3)$ Fourier transforms and summation of radial basis functions</i>	R2
12:20 - 13:20	Section: Optimization (OPT) A. M. Valuev. <i>On approximation of optimum control problems for switched and hybrid systems</i> J. Žilinskas. <i>Multidimensional scaling with city-block distances based on combinatorial optimization and systems of linear equations</i> E. Barsky, M. Barsky. <i>Relationship between fractional separation curves and quantitative optimization criteria in the separation of pourable materials</i>	R3
12:20 - 13:20	Section: Analysis (Analysis1) M. Bykova , N. Strelkov. <i>Perfect sets of zero measure in the numerical analysis</i> R. Kačinskaitė. <i>On discrete universality of zeta-functions</i> G. Tamberg. <i>On Shannon sampling operators with averaged and dilated kernels</i>	R4
13:30 - 14:30	Lunch	
15:00	Excursion	
20:00	Supper	

SATURDAY JUNE 7

8:00 - 9:00	Breakfast
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9:00 - 10:20	Section: Modelling (Mod6) D. Funaro. <i>Rotating electromagnetic waves</i> A. Buikis, J. Cepitis , S. Kostjukova. <i>The mathematical model of the plywood production</i> A. Latz, U. Strautiņš. <i>A mesoscale based model for concentrated fibre suspension flows</i> B. Shvartsman. <i>Dynamic stability analysis of the tapered beams under distributed follower load</i>
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9:00 - 10:20	Section: Ill-Posed Problems (IPP1) T. Regińska. <i>Regularization of a Cauchy problem for the Helmholtz equation on Lipschitz domain</i> U. Hämarik , R. Palm. <i>On extrapolation of Tikhonov and Lavrentiev regularization methods and on implicit iteration method</i> U. Hämarik, R. Palm. <i>On minimization strategies for choice of the regularization parameter</i> T. Raus. <i>New regularization parameter choice rules for Tikhonov and Lavrentiev methods and for their iterative variants</i>
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9:00 - 10:20	Section: Partial Differential Equations (PDE5) M. Annunziato. <i>A finite difference method for piecewise deterministic process with memory: monotonicity and conservativity</i> U. Kangro. <i>Convergence of the interior source method for scattering problems in case of piecewise smooth boundary</i> V. I. Korzyuk , J. V. Pulko. <i>Initial boundary value problem for wave equation with integral boundary condition</i> H. Kalis, I. Kangro. <i>Numerical methods for solving some nonlinear heat transfer problems</i>
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9:00 - 10:20	Section: Analysis (Analysis2) U. Raitums. <i>Continuity properties of some multivalued mappings</i> I. Bula. <i>Difference equations in economics</i> T. Riismaa. <i>Convex extension of discrete-convex functions</i>
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10:20 - 10:40	Coffee break
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10:40 - 11:40	Section: Modelling (Mod7) R. Čiegis, G. Jankevičiūtė. <i>Numerical analysis of laser ablation in an ambient gas</i> K. Petrauskas. <i>Computational modelling of biosensors covered with a perforated membrane</i> R. Baronas, D. Simelevicius. <i>Modelling of amperometric biosensors in the case of substrate and product inhibition</i>
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10:40 - 11:40	Section: Ill-posed Problems (IPP2) N. Rückert. <i>Numerical aspects of Dupire's formula</i> I. Kangro, O. Vaarmann. <i>On iterative methods for nonlinear ill-posed equations</i> A.F. M. A. AL-Juboori. <i>Learning, regularization and ill-posed inverse problems</i>
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10:40 - 11:40	Section: Partial Differential Equations (PDE6) G. I. Shishkin. <i>Grid approximation of singularly perturbed parabolic equations in unbounded domains in the case of solutions growing at infinity</i> L. P. Shishkina, G. I. Shishkin. <i>Numerical method for a system of semilinear singularly perturbed parabolic reaction-diffusion equations</i> G. I. Shishkin, I. V. Tselishcheva. <i>Decomposition of the method of lines for a singularly perturbed elliptic convection-diffusion equation</i>
11:40 - 12:00	Coffee break
12:00 - 12:40	Plenary talk: A. Buikis University of Latvia, Riga (Latvia) <i>Green function method for regular non-canonical domains</i>
12:40 - 12:50	Closing
12:50 - 13:50	Lunch
14:15	Buses to Tartu
