

		<b>Plenary Talks</b> 9:15-10:15	<b>Session 1</b> 10:45-12:25	<b>Session 2</b> 14:00 - 14:50	<b>Session 3</b> 15:10 - 16:25	<b>Session 4</b> 16:45-18:00	<b>Evening</b>
Sunday July 23							<b>Welcome Reception</b> (17:00-20:00, House 6)
Monday July 24	Room SL	P. Huerre	Applied Aerodynamics	Applied Aerodynamics	Minisymposium Stynes, O’Riordan	Minisymposium Stynes,O’Riordan	<b>Get Together Party</b> (Old Town-hall, 19:00-20:30)
	Room MPI	(Room MPI)	Asymptotic Methods	Asymptotic Methods	Special Flows		
Tuesday July 25	Room SL	M. Stynes	Heat Transfer	Flows in Special Geometries	Minisymposium Hartmann, Houston	Minisymposium Hartmann, Houston	<b>Public Talk</b> Prof. Gersten  Room SL (20:00-21:30)
	Room MPI	(Room MPI)	Minisymposium Maubach, Tselishcheva	Minisymposium Maubach, Tselishcheva	Numeric. Methods for Fluid Flows	Numerical Methods 1	
Wednesday July 26	Room SL	W. Wall	Numerical Methods 2	Open Discussion 1	<b>Excursion</b>  <b>Conference Dinner</b>		
	Room MPI	(Room MPI)	Wall functions 1	Wall functions 2			
Thursday July 27	Room SL	P. Houston	Anisotropic Meshes 1	Round Tour (DLR, Math. Inst.)	Minisymposium Shishkin, Hemker	Minisymposium Shishkin, Hemker	
	Room MPI	(Room MPI)	Turbulence Modelling		Anisotropic Meshes 2	Open Discussion 2	
Friday July 28	Room SL	Minisymposium: Das,Sengupta (9:15-10:30, 11:00-12:15)		<b>End of Conference</b>			
	Room MPI						

	ROOM SCHOOL-LAB (SL)	ROOM MPI
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**Sunday, 23 July**

17:00 - 20:00	Welcome Reception
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**Monday, 24 July**

8:00 - 9:00	Registration	
9:00 - 9:15		Opening
9:15 - 10:15		<p><b><u>Plenary Talk:</u></b></p> <p><b>P. Huerre:</b> <i>Dynamics of hot jets: a numerical and theoretical study.</i></p>
10:15 - 10:45	Coffee Break	
10:45 - 12:25	<p><u>Session: Applied Aerodynamics</u></p> <p><b>P. Svacek:</b> Numerical Approximation of Flow Induced Airfoil Vibrations (10:45-11:10)</p> <p><b>A. Firooz, M. Gadami:</b> Turbulence Flow for NACA 4412 in Unbounded Flow and Grow Effect with Different Turbulence Models and Two Ground Conditions: Fixed and Moving Ground Conditions (11:10-11:35)</p> <p><b>B. Eisfeld:</b> Computation of complex compressible aerodynamic flows with Reynolds stress turbulence model (11:35-12:00)</p>	<p><u>Session: Asymptotic methods</u></p> <p><b>M. Hamouda, R. Temam:</b> Boundary layers for the Navier-Stokes equations: asymptotic analysis (10:45-11:10)</p> <p><b>N.V. Tarasova:</b> Full asymptotic analysis of the Navier-Stokes equations in the problems of gas flows over bodies with large Reynolds number (11:10-11:35)</p> <p><b>N. Neuss:</b> Numerical approximation of boundary layers for rough boundaries (11:35-12:00)</p>

	ROOM SCHOOL-LAB (SL)	ROOM MPI
10:45 - 12:25	<u>Session: Applied Aerodynamics</u> <b>A. Nastase:</b> Qualitative Analysis of the Navier-Stokes Solutions on Vicinity of their Critical Lines (12:00-12:25)	<u>Session: Asymptotic methods</u> <b>A.-M. Il'in, B.I. Suleimanov:</b> The coefficients of inner asymptotic expansions for solutions of some singular boundary value problems (12:00-12:25)
12:30 - 14:00	Lunch Break	
14:00 - 14:50	<u>Session: Applied Aerodynamics</u> <b>C.H. Tai, C.-Y. Chao, J.-C. Leong, Q.S. Hong:</b> Effects of golf ball dimple configuration on aerodynamics, trajectory, and acoustics (14:00-14:25) <b>W.S. Islam, V.R. Raghavan:</b> Numerical Simulation of High Sub-critical Reynolds Number Flow Past a Circular Cylinder (14:25-14:50)	<u>Session: Asymptotic methods</u> <b>Z.-H. Yang, Y.-Z. Li, Y. Zhu:</b> Application of Bifurcation Method to Computing Numerical Solutions of Lane-Emden Equation (14:00-14:25) <b>H. Tian:</b> Uniformly Convergent Numerical Methods for Singularly Perturbed Delay Differential Equations (14:25-14:50)
14:50 - 15:10	Coffee Break	
15:10 - 16:25	<u>Minisymposium: M. Stynes, E. O'Riordan</u> <b>H. Wang:</b> A Component-Based Eulerian-Lagrangian Formulation for Compositional Flow in Porous Media <b>G.I. Shishkin:</b> A posteriori adapted meshes in the approximation of singularly perturbed quasilinear parabolic convection-diffusion equations <b>W. Layton, I. Stanculescu:</b> Numerical Analysis of Approximate Deconvolution Models of Turbulence	<u>Session: Special Flows</u> <b>B. Rasuo:</b> On Boundary Layer Control in Two-Dimensional Transonic Wind Tunnels (15:10-15:35) <b>M. Vasiliev:</b> About unsteady Boundary Layer on a dihedral angle (15:35-16:00) <b>K. Mansour:</b> Boundary Layer Solution for Laminar Flow through a Loosely Curved Pipe by using Stokes Expansion (16:00-16:25)

	ROOM SCHOOL-LAB (SL)	ROOM MPI
16:25 - 16:45	Coffee break	
16:45 - 18:00	<u>Minisymposium: M. Stynes, E. O’Riordan</u> <b>R.K. Dunne, <u>E. O’Riordan</u>, M.M. Turner:</b> A singular perturbation problem arising in the modeling of plasma sheaths	
19:00 - 21:00	Get Together Party Old Town Hall	

	ROOM SCHOOL-LAB (SL)	ROOM MPI
<b>Tuesday, 25 July</b>		
9:15 - 10:15		<b>Plenary Talk:</b> <b>M. Stynes:</b> <i>Convection-diffusion problems, SD-FEM/SUPG and a priori meshes.</i>
10:15 - 10:45	Coffee break	
10:45 - 12:25	<u>Session: Heat Transfer</u> <b>M. Hölling, H. Herwig:</b> Computation of turbulent natural convection at vertical walls using new wall functions (10:45-11:10) <b>O. Shishkina, C. Wagner:</b> Boundary and Interior Layers in Turbulent Thermal Convection (11:10-11:35) <b>K. Morinishi:</b> Rarefied Gas Boundary Layer Predicted with Continuum and Kinetic Approaches (11:35-12:00)	<u>Minisymposium: J.Maubach, I.V.Tselishcheva:</u> <b>M. Anthonissen, I. Sedykh, J. Maubach:</b> A convergence proof of local defect correction for convection-diffusion problems <b>J. Maubach:</b> On the difference between left and right preconditioning for convection dominated convection-diffusion problems <b>A. Hegarty, St. Sikwila, G.I. Shishkin:</b> An adaptive method for the numerical solution of an elliptic convection diffusion problem <b>P. Zegeling:</b> An Adaptive Grid Method for the Solar Coronal Loop Model
12:30 - 14:00	Lunch Break	

	ROOM SCHOOL-LAB (SL)	ROOM MPI
14:00 - 14:50	<p><u>Session: Flows in Special Geometries</u></p> <p><b>D. Kachuma, I. Sobey:</b> Fast waves during transient flow in an asymmetric channel (14:00-14:25)</p> <p><b>J. Mauss, J. Cousteix:</b> Global Interactive Boundary Layer (GIBL) for a Channel (14:25-14:50)</p>	<p><u>Minisymposium: J.Maubach, I.V.Tselishcheva:</u></p> <p><b>A.I. Zadorin:</b> Numerical method for the Blasius equation on an infinite interval</p> <p><b>S. Li , L.P. Shishkina, G.I. Shishkin,</b> Parameter-uniform method for a singularly perturbed parabolic equation modelling the Black-Scholes equation in the presence of interior and boundary layers</p>
14:50 - 15:10	Coffee Break	
15:10 - 16:25	<p><u>Minisymposium: R. Hartmann, P. Houston</u></p> <p><b>J. Mackenzie, A. Nicola:</b> A Discontinuous Galerkin Moving Mesh Method for Hamilton-Jacobi Equations</p> <p><b>R. Schneider, P. Jimack:</b> Anisotropic mesh adaption based on a posteriori estimates and optimisation of node positions</p> <p><b>S. Perotto:</b> Layer Capturing via Anisotropic Adaption</p>	<p><u>Session: Numer. Methods for Fluid Flows</u></p> <p><b>P. Knobloch:</b> On methods diminishing spurious oscillations in finite element solutions of convection-diffusion equations (15:10-15:35)</p> <p><b>G. Matthies, L. Tobiska:</b> Mass conservation of finite element methods for coupled flow-transport problems (15:35-16:00)</p> <p><b>M. Olshanskii:</b> An Augmented Lagrangian Based Solver for the low-viscosity incompressible flows (16:00-16:25)</p>
16:25 - 16:45	Coffee break	

	ROOM SCHOOL-LAB (SL)	ROOM MPI
16:45 - 18:00	<p><u>Minisymposium: R. Hartmann, P. Houston</u></p> <p><b>V. Heuveline:</b> On a new refinement strategy for adaptive hp finite element</p> <p><b>R. Hartmann:</b> Discontinuous Galerkin methods for compressible flows: higher order accuracy, error estimation and adaptivity</p>	<p><u>Session: Numerical Methods 1</u></p> <p><b>M. Bause:</b> Apects of SUPG/PSPG and GRAD-DIV Stabilized Finite Element Approximation of Compressible Viscous Flow (16:45-17:10)</p> <p><b>F. Nataf, G. Rapin:</b> Application of the Smith Factorisation to Domain Decomposition Methods for the Stokes Equations (17:10-17:35)</p> <p><b>A. Cangiani, E.H. Georgoulis, M. Jensen:</b> Continuous-Discontinuous Finite Element Methods for Convection-Diffusion Problems (17:35-18:00):</p>
20:00 - 21:30	<p><b>Public Talk:</b></p> <p><b>Gersten:</b> Vom Kochtopf bis zum Fußballspiel: Episoden zu der weltweiten Wirkung der Göttinger Strömungsforscher (in german)</p>	

	ROOM SCHOOL-LAB (SL)	ROOM MPI
<b>Wednesday, 26 July</b>		
9:15 - 10:15		<b>Plenary Talk:</b> <b>W. Wall:</b> <i>Variational Multiscale Methods for incompressible flows.</i>
10:15 - 10:45	Coffee Break	
10:45 - 12:25	<p><u>Session: Numerical Methods 3</u></p> <p><b>F. Alizard, J.-Ch. Robinet:</b> Two-dimensional temporal modes in nonparallel flows (10:45-11:10)</p> <p><b>Q. Ye:</b> Numerical simulation of turbulent boundary for stagnation-flow in the spray-painting process (11:10-11:35)</p> <p><b>A.I. Tolstykh, M.V. Lipavskii, E.N. Chigerev:</b> Highly accurate 9th-order schemes and their applications to DNS of thin shear layer instability (11:35-12:00)</p> <p><b>N. Parumasur, J. Banasiak, J.M. Kozakiewicz:</b> Numerical and Asymptotic Analysis of Singularly Perturbed PDEs of Kinetic Theory (12:00-12:25)</p>	<p><u>Session: Wall Functions 1</u></p> <p><b>T. Knopp:</b> Model-consistent universal wall-function for RANS turbulence modelling (10:45-11:10)</p> <p><b>Th. Alrutz, T. Knopp:</b> Near wall grid adaption for wall functions (11:10-11:35)</p> <p><b>Z. Hammouch:</b> Similiarity solutions of a power-law non-Newtonian laminar boundary layer flows (11:35-12:00)</p> <p><b>B. Scheichl, A. Kluwick:</b> On Turbulent Marginal Separation: How the Logarithmic Law of the Wall is Superseded by the Half-Power Law (12:00-12:25)</p>
12:30 - 14:00	Lunch Break	



	ROOM SCHOOL-LAB (SL)	ROOM MPI
14:00 - 15:00	<u>Open Discussion I</u> How to prevent spurious oscillations in boundary and interior layers?	<u>Session: Wall Functions 2</u> <b>V.D. Liseykin, Y.V. Likhanova, D.V. Patrakhin, I.A. Vaseva:</b> Application of boundary layer-type functions to comprehensive grid generation codes (14:00-14:25)
16:00 - 22:00	Excursion + Conference Dinner	

	ROOM SCHOOL-LAB (SL)	ROOM MPI
<b>Thursday, 27 July</b>		
9:15 - 10:15		<b>Plenary Talk:</b> <b>P. Houston:</b> <i>Discontinuous Galerkin Finite Element Methods for CFD: A Posteriori Error Estimation and Adaptivity.</i>
10:15 - 10:45	Coffee Break	
10:45 - 12:25	<u>Session: Anisotropic Meshes 1</u> <b>H.-G. Roos:</b> A Comparison of Stabilization Methods for Convection-Diffusion-Reaction Problems on Layer-Adapted Meshes (10:45-11:10) <b>H.-G. Roos, H. Zarin:</b> Discontinuous Galerkin stabilization for convection-diffusion problems (11:10-11:35) <b>L. Tobiska:</b> Using rectangular $Q_p$ elements in the SD-FEM for a convection-diffusion problem with a boundary layer (11:35-12:00) <b>C. Clavero, J.L. Gracia, F. Lisbona:</b> A second order uniform convergent method for a singularly perturbed parabolic system of reaction-diffusion type (12:00-12:25)	<u>Session: Turbul. Modelling</u> <b>Boguslawski:</b> Sheare Stress Distribution on Sphere Surface at Different Inflow Turbulence (10:45-11:10) <b>H. Lüdecke:</b> Detached Eddy Simulation of Supersonic Shear Layer Wake Flows (11:10-11:35) <b>O. Mierka, D. Kuzmin:</b> On the implementation of turbulence models in incompressible flow solvers based on a finite element discretization (11:35-12:00) <b>S.A. Gaponov, G.V. Petrov, B.V. Smorodsky:</b> Boundary layer interaction with external disturbances (12:00-12:25)
12:30 - 14:00	Lunch Break	
14:00 - 14:50	Round Tours (DLR or Mathematical Institute)	
14:50 - 15:10	Coffee Break	

	ROOM SCHOOL-LAB (SL)	ROOM MPI
15:10 - 16:25	<p><u>Minisymposium: G.I. Shishkin, P. Hemker</u></p> <p><b>G.I. Shishkin:</b> Grid approximation of parabolic equations with nonsmooth initial condition in the presence of boundary layers of different types</p> <p><b>L.P. Shishkina, G.I. Shishkin:</b> A difference scheme of improved accuracy for a quasilinear singularly perturbed elliptic convection-diffusion equation in the case of the third-kind boundary condition</p> <p><b>D. Branley, A. Hegarty, H. MacMullen and G.I. Shishkin:</b> A Schwarz method for a convection-diffusion problem with a corner singularity</p>	<p><u>Session: Anisotropic Meshes 2</u></p> <p><b>A.E.P. Veldmann:</b> High-order symmetry-preserving discretization on strongly stretched grids (15:10-15:35)</p> <p><b>Th. Apel, G. Matthies:</b> A family of non-conforming finite elements of arbitrary order for the Stokes problem on anisotropic quadrilateral meshes (15:35-16:00)</p> <p><b>G. Lube:</b> A stabilized finite element method with anisotropic mesh refinement for the Oseen equations (16:00-16:25)</p>
16:25 - 16:45	Coffee Break	
16:45 - 18:00	<p><u>Minisymposium: G.I. Shishkin, P. Hemker</u></p> <p><b>I.V. Tselishcheva, G.I. Shishkin:</b> Domain decomposition method for a semilinear singularly perturbed elliptic convection-diffusion equation with concentrated sources</p> <p><b>Th. Linss, M. Madden:</b> Layer-adapted meshes for time-dependent reaction diffusion</p> <p><b>S. Hemavathi, S.Valarmathi:</b> A parameter-uniform numerical method for a system of singularly perturbed ordinary differential equations</p>	<p><u>Open Discussion 2</u></p> <p>Anisotropic mesh generation for advection-dominated problems and for incompressible flow problems</p>

	ROOM SCHOOL-LAB (SL)	ROOM MPI
<b>Friday, 28 July</b>		
9:15 - 10:30	<p><u>Minisymposium: D. Das, T.K. Sengupta</u></p> <p><b>M.H. Buschmann</b> M. Gad-El-Hak: Turbulent Boundary Layers: Reality and Myth</p> <p><b>L. Savic, H. Steinrück:</b> Asymptotic Analysis of the mixed convection flow past a horizontal plate near the trailing edge</p>	
10:30 - 11:00	Coffee Break	
11:00 - 12:25	<p><u>Minisymposium: D. Das, T.K. Sengupta</u></p> <p><b>T.K. Sengupta, A. Kameswara Rao:</b> Spatio-temporal growing waves in boundary-layers by Bronw-ich contour integral method</p> <p><b>A. Nayak, D. Das:</b> Three-dimensional Temporal Instability of Unsteady Pipe Flow</p> <p><b>J. Hussong, N. Bleier, V.I.V. Ram:</b> The structure of the critical layer of a swirling annular flow in transi-tion</p>	
12:25 - 12:40	Closing Session	
12:40 - 14:00	Lunch	