

MAFELAP 2019, Tue 18–Fri 21 June 2019, Programme

One page summary

Tuesday 18th June

09:30– HWLL001: Geoff Rodgers, 09:45 Ricardo Nochetto. 11:00 Jennifer Ryan, 11:45 Omar Ghattas (the Oden lecture),

12:30–14:00 LUNCH in the the Darwin, Cavendish and Mead rooms in the Hamilton Centre

14:00–15:40 and 16:05–17:45 Mini-symposium sessions in rooms LECT 061/2/3/4/5/6/7/8, LECT 011/015 and HWLL001.

18:00–19:30 events in the Eastern Gateway building

18:00–18:30 John Whiteman, 18:30–19:30 Julian Reed.

20:00 DINNER in the Newton and Cavendish rooms in the Hamilton Centre

Wednesday 19th June

08:30–10:35 Mini-symposium sessions in rooms LECT 061/2/3/4/5/6/7/8, LECT 011/015 and HWLL001.

11:00– HWLL001: 11:00 Robert Scheichl, 11:45 Franco Brezzi (the Babuška lecture).

12:40–14:00 LUNCH in the the Darwin, Cavendish and Mead rooms in the Hamilton Centre

14:00–15:40 and 16:10–18:15 Mini-symposium sessions in rooms LECT 061/2/3/4/5/6/7/8, LECT 011/015 and HWLL001.

19:30 Dinner in the Newton and Mead /Cavendish rooms in the Hamilton Centre.

Thursday 20th June

08:30–10:35 Mini-symposium sessions in rooms LECT 061/2/3/4/5/6/7/8, LECT 011/015 and HWLL001.

11:00– HWLL001: 11:00 George Dulikravich (the Zienkiewicz lecture), 11:45 Ralf Hiptmair.

12:40–14:00 LUNCH in the the Darwin, Cavendish and Mead rooms in the Hamilton Centre

14:00–15:40 and 16:10–18:15 Mini-symposium sessions in rooms LECT 061/2/3/4/5/6/7/8, LECT 011/015 and HWLL001.

19:00 onwards Pre-Dinner drinks in Mead and Cavendish rooms in the Hamilton centre followed by the conference dinner at 19:30.

Friday 21st June

08:30–10:35 Mini-symposium sessions in rooms LECT 061/2/3/4/5/6/7/8, LECT 011/015 and HWLL001.

11:00– HWLL001: 11:00 Andrey Jivkov, 11:45 Paul Houston.

12:40–14:00 LUNCH in the the Darwin, Cavendish and Mead rooms in the Hamilton Centre

Mini-symposium numbers and titles

1	Recent development and applications of discontinuous Galerkin methods
2	FE for moving boundary problems: current approaches and applications
3	Advances in Space-Time Finite Element Methods
4	FE analysis for optimal control problems
5	Theoretical and computational advances in polygonal and polyhedral methods
6	Novel adaptive discretization schemes for variational inequalities
7	The Mathematics of Hybrid Particle Mesh Methods
8	Adaptive and property preserving finite element methods
9	Recent advancements in p and hp Galerkin methods
10	Unfitted Finite Element Methods: Analysis, Algorithms and Applications
11	Numerical methods in structural mechanics and for higher order problems
12	Recent developments in the numerical approximation of transport equations
13	Numerical Methods for Wave Problems in Complex Materials
14	Numerical methods for nonlocal problems
15	Numerical methods for viscoelastic problems
16	Recent advances in goal-oriented adaptivity
17	Finite element methods for efficient uncertainty quantification
18	Shape Optimization: Theory and Practice
19	Numerical Methods for Phase Field Fracture Problems
20	Space-Time Methods for Wave Problems
21	Finite Element Methods for Multiphysics Problems
22	High Performance Finite Element Techniques
23	High dimensional sampling and FE methods for UQ
24	PDE Eigenvalue Problems: Computational Modeling and Numerical Analysis
25	Design and analysis of finite element methods: compatibility and robustness
26	Numerical Methods for Continuum Solvation
27	High-frequency wave problems in heterogeneous media
28	Analysis and simulations of coupled-bulk-surface PDES with applications to Biology
29	Development in efficient and compatible algorithms for porous media phenomena
30	Numerical methods for optics and photonics
31	Multiscale problems and their numerical treatment
32	Numerical Methods for Nonvariational PDEs
33	Advances in Integral Equations

Tuesday 18th June

Tue 09:30–09:40 in HWLL001: Geoff Rodgers

Chair: **John Whiteman**

Tue 09:45–10:30 in HWLL001

Nochetto, R.

FEMs for Fractional Diffusion: A Survey

Tue 10:30–11:00: COFFEE in LECT 004/006 and LECT 005/009

Chair: **Mark Ainsworth**

Tue 11:00–11:45 in HWLL001

Ryan, J.

Exploiting underlying approximation properties in the discontinuous Galerkin method for improved trouble cell indication

Tue 11:45–12:30 in HWLL001

Ghattas, O.

Large-scale stochastic PDE-constrained optimization

Tue 12:30–14:00: LUNCH in the the Darwin, Cavendish and Mead rooms in the Hamilton Centre

Time	A: LECT061 MS 9	B: LECT062 MS 14	C: LECT063 MS 20	D: LECT064 MS 31	E: LECT065 MS 15
TU 1400	Ainsworth, M.	Zhou, Z.	Gimperlein, H.	Runborg, O.	Bajpai, S.
TU 1425	Schröder, A.	Karaa, S.	Hauser, J.	Ahlkrona, J.	Brunk, A.
TU 1450	Feischl, M.	Kopteva, N.	Schafelner, A.	Schindler, F.	Goswami, D.
TU 1515	Giani, S.	Schädle, A.	Schanz, M.	Pouchon, T.	Jang, Y.

Time	F: LECT066 MS 17	G: LECT067 MS 28	H: LECT068 MS 10	I: LECT011/015 MS 32	J: HWLL001 Parallel session
TU 1400	Eigel, M.	Campillo-Funollet, E.		Bonnet, G.	Davies, P.
TU 1425	Xu, F.	Cusseddu, D.	Delay, G.	Friebel, E.	Duncan, D.
TU 1450	Vidličková, E.	Frittelli, M.	Frei, S.	Mérigot, Q.	Jha, A.
TU 1515	Ruggeri, M.	Murphy, L.	Gastaldi, L.	Salgado, A.	Gupta, J.

Tue 15:40–16:05: TEA in LECT 004/006 and LECT 005/009

Time	A: LECT061 MS 9	B: LECT062 MS 14	C: LECT063 MS 20	D: LECT064 MS 31	E: LECT065 MS 15
TU 1605	Canuto, C.	del Teso, F.	Shukla, P.	Målqvist, A.	Notsu, H.
TU 1630	Verani, M.	Endal, J.	Stocek, J.	Henning, P.	Pani, A.
TU 1655	Schetzke, E.	Melenk, J.	Stocker, P.	Arjmand, D.	Saedpanah, F.
TU 1720	Vohralík, M.	Bolin, D.	Urzúa-Torres, C.	Chung, E.	Toulopoulos, I.

Time	F: LECT066 MS 17	G: LECT067 MS 28	H: LECT068 MS 10	I: LECT011/015 MS 32	J: HWLL001 MS 23
TU 1605	Bespalov, A.	Peng, Q.	Jankuhn, T.	Smears, I.	Feischl, M.
TU 1630	Khan, A.	Vermolen, F.	Lehrenfeld, C.	Zhang, W.	Gilbert, A.
TU 1655	Schaden, D.	Wittwer, L.	Antonietti, P.		Law, K.
TU 1720	Schmidlin, M.				

Tue 18:00–19:30 events in the Eastern Gateway building

Tue 18:00–18:30 in ESGW Auditorium
Whiteman, J.
Half a century of MAFELAP Conferences

Tue 18:30–19:30
Reed, J.
Impact Analysis as an Integral Part of the Design Process

Tue 20:00 DINNER in the Newton and Cavendish rooms in the Hamilton Centre

Tue 20:00–23:00 Cash bar in the Hamilton Centre

Wednesday 19th June

Time	A: LECT061 MS 9	B: LECT062 MS 14	C: LECT063 MS 1	D: LECT064 MS 24	E: LECT065 MS 20
WE 0830	Miraçi, A.	Jin, B.	Dedner, A.	Domínguez, S.	Wintersteiger, C.
WE 0855	Sauter, S.	Sousa, E.	Zhang, Q.	Engström, C.	Zank, M.
WE 0920	Ledger, P.	Yan, Y.	Li, X.	Gardini, F.	Ziegler, D.
WE 0945	Melenk, J.	Wang, J.	Giesselmann, J.	Giani, S.	
WE 1010	Rieder, A.	Mustapha, K.		Ovall, J.	

Time	F: LECT066 MS 22	G: LECT067 MS 26	H: LECT068 MS 31	I: LECT011/015 MS 13	J: HWLL001 MS 2
WE 0830		Krasny, R.	Legoll, F.	Gibson, N.	Peszynska, M.
WE 0855	Di Pietro, D.	Hassan, M.	Li, G.	Ciarlet, P.	Pop, I.
WE 0920	Hülsemann, F.	Quan, C.	Persson, A.	Carvalho, C.	Radu, F.
WE 0945	Kruse, C.	Ciaramella, G.		Li, J.	Remesan, G.
WE 1010	Müller, E.			Liu, J.	

Wed 10:35–11:00: COFFEE in LECT 004/006 and LECT 005/009

Chair: **John Whiteman**

Wed 11:00–11:45 in HWLL001

Scheichl, R.

Multilevel Uncertainty Quantification with Sample-Adaptive Model Hierarchies

Wed 11:45–12:30 in HWLL001

Brezzi, F.

Basic ideas on Virtual Element Methods and some recent developments

Wed 12:40–14:00: LUNCH in the the Darwin, Cavendish and Mead rooms in the Hamilton Centre

Time	A: LECT061 MS 5	B: LECT062 MS 14	C: LECT063 MS 1	D: LECT064 MS 24	E: LECT065 MS 29
WE 1400	Borio, A.	Sauter, S.	Dong, B.	Hakula, H.	Yotov, I.
WE 1425	Botti, L.	Li, B.	Hack, S.	Imeri, K.	Rui, H.
WE 1450	Droniou, J.	Zheng, C.	Hong, X.	Liu, X.	Duan, H.
WE 1515	Castanon Quiroz, D.	Kovács, B.		Grubišić, L.	Wu, C.

Time	F: LECT066 MS 22	G: LECT067 MS 3	H: LECT068 MS 16	I: LECT011/015 MS 7	J: HWLL001 MS 8
WE 1400	Mohr, M.	Matthies, G.	Bruchhäuser, M.	Berzins, M.	Barrenechea, G.
WE 1425	Weinzierl, T.	Anselmann, M.	Darrigrand, V.	Coombs, W.	Boffi, D.
WE 1450	Bovet, C.	Bause, M.	Frei, S.	Labeur, R.	Lohmann, C.
WE 1515	Gosselet, P.	Wieners, C.	Licht, M.	Vardon, P.	Milani, R.

Wed 15:40–16:10: TEA in LECT 004/006 and LECT 005/009

Time	A: LECT061 MS 9	B: LECT062 Parallel session	C: LECT063 MS 1	D: LECT064 MS 24	E: LECT065 MS 29
WE 1610	Wihler, T.	Segeth, K.	Rhebergen, S.	Stamm, B.	Sun, S.
WE 1635	Georgoulis, E.	Pinto, L.	Cesmelioglu, A.	Sun, J.	Chung, E.
WE 1700	Antonietti, P.	Bernkopf, M.	Vermolen, F.	Unger, G.	Edwards, M.
WE 1725	Maischak, M.	Papathanasiou, T.	Möller, M.	Vejchodský, T.	Gjerde, I.
WE 1750	Smears, I.	Karperaki, A.		Wess, M.	Alotibi, M.
WE 1815				Jamelot, E.	

Time	F: LECT066 MS 22	G: LECT067 MS 3	H: LECT068 MS 16	I: LECT011/015	J: HWLL001 MS 8
WE 1610	Klawonn, A.	Feistauer, M.	Maier, M.		Moldenhauer, M.
WE 1635	Kühn, M.	Dolejší, V.	Pollock, S.		Münzenmaier, S.
WE 1700	Heinlein, A.	Cangiani, A.	Pun, S.		Starke, G.
WE 1725		Lakkis, O.	Wick, T.		
WE 1750					
WE 1815					

Wed 19:30– in the Hamilton Centre

Dinner in the Newton and Mead /Cavendish rooms

Cash bar in the Hamilton Centre

Wed 20:30– in the reception bar of Lancaster Hotel and Spa

WINASC: Women in Numerical Analysis and Scientific Computing

Informal gathering for female participants to network and exchange ideas.

Run by WINASc <https://awmadvance.org/research-networks/winasc/>

Thursday 20th June

Time	A: LECT061 MS 5	B: LECT062 MS 33	C: LECT063 MS 1	D: LECT064 MS 27	E: LECT065 MS 29
TH 0830	D'Auria, A.	Betcke, T.	Frank, F.	Chaumont-Frelet, T.	Chen, J.
TH 0855	Georgoulis, E.	Bohn, J.	Yan, F.	Demkowicz, L.	Chen, H.
TH 0920	Gomes, S.	Chaillat, S.	Zala, V.	Grote, M.	Xie, X.
TH 0945	Kappas, T.	Cools, K.	Meng, X.	Imbert-Gérard, L.	He, Q.
TH 1010	Krell, S.	Gillman, A.		Moiola, A.	

Time	F: LECT066 MS 11	G: LECT067 MS 26	H: LECT068 MS 6	I: LECT011/015 MS 12	J: HWLL001 Parallel session
TH 0830	Bonaldi, F.	Case, D.	Veese, A.	Allredge, G.	Lukáš, D.
TH 0855	Dassi, F.	Borgis, D.	Gudi, T.	Gopalakrishnan, J.	Vacek, L.
TH 0920	Dong, Z.	Rocchia, W.	Führer, T.	Kitzler, G.	Giannakeas, I.
TH 0945	Droniou, J.	Geng, W.	Rademacher, A.	Mula, O.	Knobloch, P.
TH 1010	Gedicke, J.		Banz, L.	Pintarelli, S.	Castelli, G.

Thu 10:35–11:00: COFFEE in LECT 004/006 and LECT 005/009

Chair: **Jennifer Ryan**

The Zienkiewicz lecture

Thu 1100–1145 in HWLL001

Dulikravich, G.

Inverse problems and hybrid optimization algorithms

Thu 1145–1230 in HWLL001

Hiptmair, R.

Multi-Trace Boundary Element Methods

Thu 12:30–14:00: LUNCH in the the Darwin, Cavendish and Mead rooms in the Hamilton Centre

Time	A: LECT061 MS 5	B: LECT062 MS 33	C: LECT063 MS 4	D: LECT064 MS 25	E: LECT065 MS 27
TH 1400	Mascotto, L.	Groth, S.	Chrysafinos, K.	Dong, Z.	Monk, P.
TH 1425	Mazzieri, I.	Hewett, D.	Engel, S.	Kopteva, N.	Pembery, O.
TH 1450	Manzini, G.	Jerez-Hanckes, C.	Holtmannspoetter, M.	Pignet, N.	Pierrat, R.
TH 1515	Natarajan, E.	Of, G.	Rösch, A.	Wihler, T.	Scheid, C.

Time	F: LECT066 MS 11	G: LECT067 MS 21	H: LECT068 MS 6	I: LECT011/015 MS 19	J: HWLL001
TH 1400	Heuer, N.	Rupp, A.	Winckler, M.	Heister, T.	
TH 1425	Niemi, A.	van der Vegt, J.	Walloth, M.	Martínez- Pañeda, E.	
TH 1450	Porwal, K.	Wells, G.	Bertrand, F.	Mohammadi, M.	
TH 1515	Sharma, N.	Yotov, I.	Kober, B.	Jodlbauer, D.	

Thu 15:40–16:10: TEA in LECT 004/006 and LECT 005/009

Time	A: LECT061 MS 5	B: LECT062 MS 33	C: LECT063 MS 4	D: LECT064 MS 25	E: LECT065 MS 27
TH 1610	Ovall, J.	Praetorius, D.	Pfefferer, J.	Roggendorf, S.	Torres, C.
TH 1635	Pignet, N.	Rjasanow, S.	Baumgartner, J.	Schöberl, J.	Verfürth, B.
TH 1700	Russo, A.	Scroggs, M.	Endtmayer, B.	van der Zee, K.	
TH 1725	Sutton, O.	Steinbach, O.	Wollner, W.	Veesser, A.	
TH 1750	Vacca, G.	Zapletal, J.		Wachtel, A.	

Time	F: LECT066 MS 11	G: LECT067 MS 18	H: LECT068 MS 21	I: LECT011/015 MS 12	J: HWLL001 MS 7
TH 1610	Zulehner, W.	Delfour, M.	Chidyagwai, P.	Söllner, B.	Wobbes, E.
TH 1635		Berggren, M.	Zúñiga, P.	Stevenson, R.	Tielen, R.
TH 1700		Haubner, J.	Kirk, K.	Zakerzadeh, M.	Vardon, P.
TH 1725		Chaudet- Dumas, B.	Méndez, P.		
TH 1750		Gangl, P.			

Thu 19:00: Pre-Dinner Drinks, Mead and Cavendish rooms

Thu 19:30: Conference dinner

Cash bar in the Hamilton Centre

Friday 21th June

Time	A: LECT061 MS 5	B: LECT062 MS 18	C: LECT063 MS 4	D: LECT064 MS 25	E: LECT065 MS 30
FR 0830					Nicholls, D.
FR 0855	Valentin, F.	Hiptmair, R.	Nataraj, N.	Plaka, D.	Nigam, N.
FR 0920	Verani, M.	Schiela, A.	Apel, T.	Zanotti, P.	Tong, X.
FR 0945		Wechsung, F.	Winkler, M.		Hewett, D.
FR 1010		Paganini, A.			Monk, P.

Time	F: LECT066 Parallel session	G: LECT067 MS 26	H: LECT068	I: LECT011/015	J: HWLL001
FR 0830					
FR 0855	Campbell, J.	Herbert, J.			
FR 0920	De Vuyst, T.	Nottoli, M.			
FR 0945	Hughes, K.	Andreussi, O.			
FR 1010	Wasilczuk, A.				

Fri 10:35–11:00: COFFEE in LECT 004/006 and LECT 005/009

Chair: **Rade Vignjevic**

Fri 11:00–11:45 in HWLL001

Jivkov, A.

Pathways to Geometric Solid Mechanics

Fri 11:45–12:30 in HWLL001

Houston, P.

High-Order Discontinuous Galerkin Methods on Polytopic Grids

Fri 12:40–14:00: LUNCH in the the Darwin, Cavendish and Mead rooms in the Hamilton Centre

Start times of the mini-symposium and parallel sessions

Parallel sessions	Tue1400 HWLL001, Wed1610 LECT062, Thu0830 HWLL001, Fri0830 LECT066
ms 1	Wed0830 LECT063, Wed1400 LECT063, Wed1610 LECT063, Thu0830 LECT063
ms 2	Wed0830 HWLL001
ms 3	Wed1400 LECT067, Wed1610 LECT067
ms 4	Thu1400 LECT063, Thu1610 LECT063, Fri0830 LECT063
ms 5	Wed1400 LECT061, Thu0830 LECT061, Thu1400 LECT061, Thu1610 LECT061, Fri0830 LECT061
ms 6	Thu0830 LECT068, Thu1400 LECT068
ms 7	Wed1400 LECT011/, Thu1610 HWLL001
ms 8	Wed1400 HWLL001, Wed1610 HWLL001
ms 9	Tue1400 LECT061, Tue1605 LECT061, Wed0830 LECT061, Wed1610 LECT061
ms 10	Tue1400 LECT068, Tue1605 LECT068
ms 11	Thu0830 LECT066, Thu1400 LECT066, Thu1610 LECT066
ms 12	Thu0830 LECT011/, Thu1610 LECT011/
ms 13	Wed0830 LECT011/
ms 14	Tue1400 LECT062, Tue1605 LECT062, Wed0830 LECT062, Wed1400 LECT062
ms 15	Tue1400 LECT065, Tue1605 LECT065
ms 16	Wed1400 LECT068, Wed1610 LECT068
ms 17	Tue1400 LECT066, Tue1605 LECT066
ms 18	Thu1610 LECT067, Fri0830 LECT062
ms 19	Thu1400 LECT011/
ms 20	Tue1400 LECT063, Tue1605 LECT063, Wed0830 LECT065
ms 21	Thu1400 LECT067, Thu1610 LECT068
ms 22	Wed0830 LECT066, Wed1400 LECT066, Wed1610 LECT066
ms 23	Tue1605 HWLL001
ms 24	Wed0830 LECT064, Wed1400 LECT064, Wed1610 LECT064
ms 25	Thu1400 LECT064, Thu1610 LECT064, Fri0830 LECT064
ms 26	Wed0830 LECT067, Thu0830 LECT067, Fri0830 LECT067
ms 27	Thu0830 LECT064, Thu1400 LECT065, Thu1610 LECT065
ms 28	Tue1400 LECT067, Tue1605 LECT067
ms 29	Wed1400 LECT065, Wed1610 LECT065, Thu0830 LECT065
ms 30	Fri0830 LECT065
ms 31	Tue1400 LECT064, Tue1605 LECT064, Wed0830 LECT068
ms 32	Tue1400 LECT011/, Tue1605 LECT011/
ms 33	Thu0830 LECT062, Thu1400 LECT062, Thu1610 LECT062

Titles of talks in each session

Titles of the plenary talks

- Wed1145, HWLL001 Franco Brezzi. Basic ideas on Virtual Element Methods and some recent developments.
- Thu1100, HWLL001 George S. Dulikravich. Inverse problems and hybrid optimization algorithms.
- Tue1145, HWLL001 Omar Ghattas. Large-scale stochastic PDE-constrained optimization.
- Thu1145, HWLL001 R. Hiptmair. Multi-Trace Boundary Element Methods.
- Fri1145, HWLL001 Paul Houston. High-Order Discontinuous Galerkin Methods on Polytopic Grids.
- Fri1100, HWLL001 Andrey Jivkov. Pathways to Geometric Solid Mechanics.
- Tue0945, HWLL001 Ricardo H. Nochetto. FEMs for Fractional Diffusion: A Survey.
- Tue1830, ESGW Aud Julian M Reed. Impact Analysis as an Integral Part of the Design Process.
- Tue1100, HWLL001 Jennifer K. Ryan. Exploiting underlying approximation properties in the discontinuous Galerkin method for improved trouble cell indication.
- Wed1100, HWLL001 Robert Scheichl. Multilevel Uncertainty Quantification with Sample-Adaptive Model Hierarchies.

Tue 1400–1540 LECT061 MS 9: Recent advancements in p and hp Galerkin methods **Organisers: Lorenzo Mascotto, Alexey Chernov and Zhaonan Dong**

- Tue1400 Mark Ainsworth. Preconditioners for High Order FEM Mass Matrix on Triangles.
- Tue1425 Andreas Schröder. A priori and a posteriori error estimates for a stabilized primal-hybrid hp -finite element method.
- Tue1450 Michael Feischl. Exponential convergence in H^1 of hp -FEM for Gevrey regularity with isotropic singularities.
- Tue1515 S. Giani. hp -adaptive celatus enriched discontinuous Galerkin methods for second-order elliptic source problems.

Tue 1400–1540 LECT062 MS 14: Numerical methods for nonlocal problems **Organisers: Bangti Jin and Buyang Li**

- Tue1400 Zhi Zhou. Correction of high-order BDF convolution quadrature for fractional evolution equations.
- Tue1425 Samir Karaa. Numerical approximation of semilinear subdiffusion equations with nonsmooth initial data.
- Tue1450 Natalia Kopteva. Barrier functions in the error analysis for fractional-derivative parabolic problems on quasi-graded meshes.
- Tue1515 A. Schädle. Fast and Parallel Runge-Kutta Approximation of Subdiffusion Equations.

Tue 1400–1540 LECT063 MS 20: Space-Time Methods for Wave Problems
Organisers: Ulrich Langer, Olaf Steinbach and Christian Wieners

- Tue1400 Heiko Gimperlein. hp-version boundary elements for the wave equation.
Tue1425 Julia I.M. Hauser. Space-Time Methods for Maxwell's Equations.
Tue1450 Andreas Schafelner. Space-Time Finite Element Methods for Parabolic Initial-Boundary Value Problems with Non-Smooth Solutions.
Tue1515 M. Schanz. Numerical evaluation of integral operators within space-time methods for the wave equation.

Tue 1400–1540 LECT064 MS 31: Multiscale problems and their numerical treatment
Organisers: Guanglian Li and Patrick Henning

- Tue1400 O. Runborg. Using time averaged waves in multiscale computations.
Tue1425 Josefin Ahlkrona. Finite Element Methods for Ice Sheet Modelling.
Tue1450 Felix Schindler. Localized model reduction for multi-scale PDE-constrained optimization.
Tue1515 Timothée Pouchon. Approximation of high order homogenised equations for wave propagation.

Tue 1400–1540 LECT065 MS 15: Numerical methods for viscoelastic problems
Organisers: Masato Kimura, Hirofumi Notsu and Simon Shaw

- Tue1400 Saumya Bajpai. *A priori* error estimates of fully discrete finite element Galerkin method for Kelvin-Voigt viscoelastic fluid flow model.
Tue1425 A. Brunk. Analysis and Numerics for a viscoelastic phase separation model.
Tue1450 Deepjyoti Goswami. Two-grid finite element Galerkin approximation of equations of motion arising in Oldroyd fluids of order one with non-smooth initial data.
Tue1515 Yongseok Jang. Discontinuous Galerkin finite element approximation to fractional order viscoelasticity problems.

Tue 1400–1540 LECT066 MS 17: Finite element methods for efficient uncertainty quantification
Organisers: Alex Bespalov and David Silvester

- Tue1400 Martin Eigel. Some thoughts on Adaptive Stochastic Galerkin FEM.
Tue1425 Feng Xu. A posteriori error estimation and adaptivity in stochastic Galerkin FEM for parametric elliptic PDEs: beyond the affine case.
Tue1450 Eva Vidličková. A posteriori error estimation for the stochastic collocation finite element approximation of a heat equation.
Tue1515 Michele Ruggeri. Convergence of adaptive stochastic Galerkin FEM for elliptic parametric PDEs.

Tue 1400–1540 LECT067 MS 28: Analysis and simulations of coupled-bulk-surface PDES with applications to Biology

Organisers: Anotida Madzvamuse and Fred Vermolen

Tue1400 Eduard Campillo-Funollet. Finite element simulations and traction force microscopy inverse problems.

Tue1425 D. Cusceddu. A coupled bulk-surface model for cell polarisation.

Tue1450 Massimo Frittelli. Virtual Element Method for elliptic and parabolic bulk-surface PDEs in two dimensions.

Tue1515 Laura Murphy. A moving grid finite element method applied to a mechanobiochemical model for 3D cell migration.

Tue 1425–1540 LECT068 MS 10: Unfitted Finite Element Methods: Analysis, Algorithms and Applications

Organisers: Christoph Lehrenfeld, Erik Burman, Andre Massing and Arnold Reusken

Tue1425 Guillaume Delay. Hybrid High-Order methods for indefinite problems on unfitted meshes.

Tue1450 Stefan Frei. A unified Nitsche approach for fluid-structure interactions and contact.

Tue1515 Lucia Gastaldi. A Lagrange multiplier formulation of the finite element immersed boundary method.

Tue 1400–1540 LECT011/ MS 32: Numerical Methods for Nonvariational PDEs

Organisers: Omar Lakkis and Ricardo Nochetto

Tue1400 Guillaume Bonnet. Efficient discretizations of non-linear and anisotropic PDEs on cartesian grids.

Tue1425 Elisa Friebel. A conforming C^1 finite element method for PDEs of Monge-Ampère type.

Tue1450 Quentin Mérigot. Numerical resolution through optimization of $\det(D^2u) = f(u)$.

Tue1515 Abner J. Salgado. Finite element approximation of the Isaacs equation.

Tue 1400–1540 HWLL001 Parallel session:

Chair: Matthias Maischak

Tue1400 Penny J Davies. The MRE inverse problem for the elastic shear modulus.

Tue1425 Dugald B Duncan. Approximation of time domain boundary integral equations.

Tue1450 Abhinav Jha. On Numerical Simulations and a Posteriori Analysis for Algebraic Flux Correction Schemes.

Tue1515 Jhuma Sen Gupta. A posteriori error analysis of two-step backward differentiation formula finite element approximation for parabolic interface problems.

Tue 1605–1745 LECT061 MS 9: Recent advancements in p and hp Galerkin methods
Organisers: Lorenzo Mascotto, Alexey Chernov and Zhaonan Dong

Tue1605 Claudio Canuto. Convergence and optimality in adaptive hp -FEMs.

Tue1630 M. Verani. An adaptive hp -DG-FE method for elliptic problems. Convergence and optimality in the 1D case.

Tue1655 E.M. Schetzke. Nonconforming hp -FE/BE coupling on unstructured meshes based on Nitsche's method.

Tue1720 Martin Vohralík. Localization of global norms and robust a posteriori error control for transmission problems with sign-changing coefficients.

Tue 1605–1745 LECT062 MS 14: Numerical methods for nonlocal problems
Organisers: Bangti Jin and Buyang Li

Tue1605 F. del Teso. On numerical approximations of the spectral fractional Laplacian via the method of semigroups.

Tue1630 Jørgen Endal. Nonlocal (and local) nonlinear diffusion equations. Background, analysis, and numerical approximation.

Tue1655 J.M. Melenk. AFEM for the fractional Laplacian.

Tue1720 David Bolin. The rational SPDE approach for Gaussian random fields with general smoothness.

Tue 1605–1745 LECT063 MS 20: Space-Time Methods for Wave Problems
Organisers: Ulrich Langer, Olaf Steinbach and Christian Wieners

Tue1605 Poorvi Shukla. Space-time discontinuous Galerkin method for the wave equation using the symmetric interior penalty flux.

Tue1630 J. Stoeck. Stabilized mixed boundary elements for the wave equation and hyperbolic variational inequalities.

Tue1655 Paul Stocker. Tent pitching and a Trefftz-DG method for the acoustic wave equation.

Tue1720 Carolina Urzúa-Torres. A new approach to Space-Time Boundary Integral Equations for the Wave Equation.

Tue 1605–1745 LECT064 MS 31: Multiscale problems and their numerical treatment
Organisers: Guanglian Li and Patrick Henning

Tue1605 Axel Målqvist. Numerical upscaling of perturbed diffusion problems.

Tue1630 Patrick Henning. Anderson Localization of Schrödinger Eigenfunctions.

Tue1655 Doghony Arjmand. Exponential decay of the resonance error in numerical homogenization via parabolic and elliptic cell problems.

Tue1720 Eric Chung. Cluster-based multiscale model reduction.

Tue 1605–1745 LECT065 MS 15: Numerical methods for viscoelastic problems

Organisers: Masato Kimura, Hirofumi Notsu and Simon Shaw

Tue1605 Hirofumi Notsu. The gradient flow structure of an extended Maxwell viscoelastic model.

Tue1630 Amiya Kumar Pani. On the Equation of Motion Arising in the Oldroyd Model: Theoretical and Computational Issues.

Tue1655 Fardin Saedpanah. Continuous and discontinuous Galerkin methods for fractional order viscoelasticity.

Tue1720 Ioannis Touloupoulos. A finite element scheme for viscoplastic models in metal forming problems.

Tue 1605–1745 LECT066 MS 17: Finite element methods for efficient uncertainty quantification

Organisers: Alex Bespalov and David Silvester

Tue1605 Alex Bespalov. Goal-oriented adaptivity for elliptic PDEs with parametric or uncertain inputs.

Tue1630 Arbaz Khan. Stochastic Galerkin mixed finite element approximation for linear poroelasticity with uncertain inputs.

Tue1655 Daniel Schaden. Multilevel Best Linear Unbiased Estimators.

Tue1720 Marc Schmidlin. Multilevel quadrature for elliptic problems on random domains by the coupling of FEM and BEM.

Tue 1605–1745 LECT067 MS 28: Analysis and simulations of coupled-bulk-surface PDES with applications to Biology

Organisers: Anotida Madzvamuse and Fred Vermolen

Tue1605 Qiyao Peng. Various Mathematical Approaches to Mechanical Simulations in Wound Healing Processes.

Tue1630 Fred Vermolen. Isogeometric Analysis of a Reaction-Diffusion Model for Human Brain Development.

Tue1655 Lucas D. Wittwer. Phase-Field Simulations of Lung Branching Morphogenesis.

Tue 1605–1745 LECT068 MS 10: Unfitted Finite Element Methods: Analysis, Algorithms and Applications

Organisers: Christoph Lehrenfeld, Erik Burman, Andre Massing and Arnold Reusken

Tue1605 Thomas Jankuhn. Higher order trace finite element methods for surface vector Laplace equations.

Tue1630 Christoph Lehrenfeld. Higher order unfitted FEM on moving domains.

Tue1655 Paola F. Antonietti. Unified formulation for polytopic Discontinuous Galerkin approximation of flows in fractured porous media.

Tue 1605–1745 LECT011/ MS 32: Numerical Methods for Nonvariational PDEs
Organisers: Omar Lakkis and Ricardo Nochetto

Tue1605 Iain Smears. Semismooth Newton Methods for HJB equations.

Tue1630 Wujun Zhang. A rate of convergence of numerical optimal transport problem with quadratic cost.

Tue 1605–1745 HWLL001 MS 23: High dimensional sampling and FE methods for UQ
Organisers: Alec Gilbert, Ivan G. Graham and Rob Scheichl

Tue1605 Michael Feischl. Improved Efficiency of Multi-Index FEM.

Tue1630 Alexander Gilbert. Multilevel quasi-Monte Carlo methods for random elliptic eigenvalue problems.

Tue1655 Kody Law. Multilevel Monte Carlo methods for Bayesian inverse problems.

Wed 0830–1035 LECT061 MS 9: Recent advancements in p and hp Galerkin methods
Organisers: Lorenzo Mascotto, Alexey Chernov and Zhaonan Dong

Wed0830 Ani Miraçi. A multilevel algebraic error estimator and the corresponding iterative solver with p -robust behavior.

Wed0855 S. Sauter. Wavenumber-Explicit Analysis for High-Frequency Maxwell Equations.

Wed0920 P.D. Ledger. Coupled simulation of magneto-mechanical problems using hp finite elements applied to MRI scanners.

Wed0945 J.M. Melenk. hp -FEM for the spectral fractional Laplacian in polygons.

Wed1010 Alexander Rieder. hp -FEM for the fractional heat equation.

Wed 0830–1035 LECT062 MS 14: Numerical methods for nonlocal problems
Organisers: Bangti Jin and Buyang Li

Wed0830 Bangti Jin. Numerical analysis of subdiffusion with a time-dependent coefficient.

Wed0855 Ercilia Sousa. Finite volume methods for the fractional Klein-Kramers equation.

Wed0920 Yubin Yan. Laplace transform method for solving fractional cable equation with nonsmooth data.

Wed0945 Jilu Wang. Unconditionally convergent $L1$ -Galerkin FEMs for nonlinear time-fractional Schrödinger equations.

Wed1010 Kassem Mustapha. Computational solutions for fractional diffusion equations.

Wed 0830–1035 LECT063 MS 1: Recent development and applications of discontinuous Galerkin methods

Organisers: Jennifer Ryan and Ethan Kubatko

- Wed0830 Andreas Dedner. Residual based a-posteriori estimates based on post-processing.
- Wed0855 Qiang Zhang. Stability analysis and error estimates in L^2 -norm of Runge-Kutta discontinuous Galerkin method for linear hyperbolic equation.
- Wed0920 Xiaozhou Li. Filtering for Discontinuous Galerkin Method: Challenging the Assumption of Uniformity.
- Wed0945 Jan Giesselmann. Model-adaptive discontinuous Galerkin schemes for compressible fluid flows.

Wed 0830–1035 LECT064 MS 24: PDE Eigenvalue Problems: Computational Modeling and Numerical Analysis

Organisers: Christian Engström, Stefano Giani, Nilima Nigam, Xuefeng Liu and Jeffrey Owall

- Wed0830 S. Domínguez. The Jones eigenvalue problem in fluid-structure interaction.
- Wed0855 Christian Engström. Computation of scattering resonances in absorptive and dispersive media.
- Wed0920 F. Gardini. Conforming and nonconforming virtual element methods for eigenvalue problems.
- Wed0945 S. Giani. A discontinuous Galerkin method for solving elliptic eigenvalue problems on polygonal meshes with hp -adaptivity.
- Wed1010 J. S. Owall. Discretization errors in filtered subspace iteration for self-adjoint operators.

Wed 0830–1035 LECT065 MS 20: Space-Time Methods for Wave Problems

Organisers: Ulrich Langer, Olaf Steinbach and Christian Wieners

- Wed0830 Christoph Wintersteiger. An explicit Mapped Tent Pitching scheme for hyperbolic systems.
- Wed0855 Marco Zank. Space-time FEM with local mesh refinement for the second-order wave equation.
- Wed0920 Daniel Ziegler. Parallel adaptive discontinuous Galerkin discretizations in space and time for visco-elastic and visco-acoustic waves.

Wed 0855–1035 LECT066 MS 22: High Performance Finite Element Techniques

Organisers: Carola Kruse, Martin Kühn and Marcus Mohr

- Wed0855 Daniele A. Di Pietro. Hybrid High-Order methods for diffusion problems on polytopes and curved elements.
- Wed0920 Frank Hülsemann. On the interest of high memory bandwidth architectures for PDE discretizations with compact support.
- Wed0945 C. Kruse. On fast iterative solvers for problems in structural mechanics.
- Wed1010 E.H. Müller. Multigrid preconditioners for Finite Element and DG discretisations: applications in geophysical fluid dynamics.

**Wed 0830–1035 LECT067 MS 26: Numerical Methods for Continuum Solvation
Organisers: Benjamin Stamm and Filippo Lipparini**

Wed0830 Robert Krasny. Recent Work on Treecodes and Applications.

Wed0855 Muhammad Hassan. Scalability Analysis of an Integral Equation Formulation of the Many-body Dielectric Problem in Electrostatics.

Wed0920 Chaoyu Quan. A Domain Decomposition Method for the Poisson–Boltzmann Solvation Model in Quantum Chemistry.

Wed0945 Gabriele Ciaramella. Analysis of the parallel Schwarz method for growing chains of fixed-sized subdomains.

**Wed 0830–1035 LECT068 MS 31: Multiscale problems and their numerical treatment
Organisers: Guanglian Li and Patrick Henning**

Wed0830 Frédéric Legoll. Nonperiodic multiscale problems: Some recent numerical advances.

Wed0855 Guanglian Li. Edge multiscale methods for elliptic problems with heterogeneous coefficients.

Wed0920 Anna Persson. A multiscale method for $H(\text{curl})$ -problems.

**Wed 0830–1035 LECT011/ MS 13: Numerical Methods for Wave Problems in
Complex Materials
Organisers: Vrushali Bokil, Nathan Gibson and Simon Shaw**

Wed0830 Nathan L. Gibson. Numerical methods for Maxwell's equations with random polarization.

Wed0855 P. Ciarlet. How to solve problems with sign-changing coefficients: part I. Classical theory.

Wed0920 C. Carvalho. How to solve transmission problems with sign-changing coefficients: part II. When hyper-singular behaviors appear..

Wed0945 Jichun Li. Development and analysis of finite element .

Wed1010 Jinjie Liu. Hybrid spectral and time domain nonlinear Maxwell solver.

**Wed 0830–1035 HWLL001 MS 2: FE for moving boundary problems: current
approaches and applications
Organisers: Kundan Kumar, Malgorzata Peszynska and Florin Radu**

Wed0830 Malgorzata Peszynska. Finite Element analysis of a coupled system of variational inequalities modeling biofilm growth at the porescale.

Wed0855 Iuliu Sorin Pop. Phase field modelling for dissolution and precipitation.

Wed0920 F. A. Radu. Efficient simulation of linear and nonlinear poroelasticity.

Wed0945 Gopikrishnan C. Remesan. Numerical solution of two dimensional tumour growth with moving boundary.

Wed 1400–1540 LECT061 MS 5: Theoretical and computational advances in polygonal and polyhedral methods

Organisers: Paola Antonietti, Andrea Cangiani, Franco Dassi, Daniele A. Di Pietro and Simon Lemaire

Wed1400 Andrea Borio. The Virtual Element Method for geophysical simulations.

Wed1425 Lorenzo Botti. p -Multilevel solution strategies for HHO discretizations.

Wed1450 Jérôme Droniou. A Hybrid-High Order method for the Brinkman model, uniformly robust in the Stokes and Darcy limits.

Wed1515 Daniel Castanon Quiroz. A pressure-robust hybrid high-order method for the steady incompressible Navier-Stokes problem.

Wed 1400–1540 LECT062 MS 14: Numerical methods for nonlocal problems

Organisers: Bangti Jin and Buyang Li

Wed1400 S. Sauter. Variable Order, Directional \mathcal{H}^2 -Matrices for Helmholtz Problems with Complex Frequency.

Wed1425 Buyang Li. Optimal control in a bounded domain for wave propagating in the whole space: coupled through boundary integral equations.

Wed1450 Chunxiong Zheng. Formulation of Nonlocal Boundary Value Problem and Its Asymptotic Analysis.

Wed1515 Balázs Kovács. Stable and convergent fully discrete interior–exterior coupling of Maxwell’s equations.

Wed 1400–1540 LECT063 MS 1: Recent development and applications of discontinuous Galerkin methods

Organisers: Jennifer Ryan and Ethan Kubatko

Wed1400 Bo Dong. High-order multiscale discontinuous Galerkin methods for the one-dimensional stationary Schrödinger equation.

Wed1425 S.A. Hack. Nonreflecting boundary conditions for a mixed DG discretization of the Maxwell equations.

Wed1450 Xue Hong. Adaptive arbitrary Lagrangian-Eulerian discontinuous Galerkin method for hyperbolic equations involving δ -singularities.

Wed 1400–1540 LECT064 MS 24: PDE Eigenvalue Problems: Computational Modeling and Numerical Analysis

Organisers: Christian Engström, Stefano Giani, Nilima Nigam, Xuefeng Liu and Jeffrey Owall

Wed1400 Harri Hakula. Eigenlocking on Thin Shells of Revolution.

Wed1425 K. Imeri. Wave blow-up through mixing of Neumann and Dirichlet boundary conditions.

Wed1450 Xuefeng Liu. Rigorous eigenvalue estimation and its application in computer-assisted solution proof for the Navier–Stokes equation.

Wed1515 L. Grubišić. FEAST iteration applied to perturbed partial differential operators.

Wed 1400–1540 LECT065 MS 29: Development in efficient and compatible algorithms for porous media phenomena

Organisers: Shuyu Sun, Todd Arbogast, Huangxin Chen and Ivan Yotov

- Wed1400 Ivan Yotov. A multipoint stress-flux mixed finite element method for the Stokes-Biot model.
- Wed1425 Hongxing Rui. Numerical methods based on staggered grids for coupled Stokes and Darcy flows.
- Wed1450 Huoyuan Duan. Approximating Maxwell eigenproblem by a family of Lagrange elements of any order.
- Wed1515 Chengda Wu. New analysis of Galerkin FEMs for miscible displacement in porous media.

Wed 1400–1540 LECT066 MS 22: High Performance Finite Element Techniques

Organisers: Carola Kruse, Martin Kühn and Marcus Mohr

- Wed1400 Marcus Mohr. Surrogate polynomials in matrix-free approaches for low-order FEM.
- Wed1425 Tobias Weinzierl. Crossbreeds—ideas behind almost matrix-free, algebraic-geometric multigrid solvers.
- Wed1450 C. Bovet. Two scales adaptation and search space recycling for Adaptive MultiPreconditioned FETI.
- Wed1515 Pierre Gosselet. Nonlinear preconditioned FETI method.

Wed 1400–1540 LECT067 MS 3: Advances in Space-Time Finite Element Methods

Organisers: Markus Bause and Florin Radu

- Wed1400 Gunar Matthies. Variational time discretisations of higher order and higher regularity.
- Wed1425 M. Anselmann. Variational time discretization of higher order and higher regularity with application to waves and incompressible flow.
- Wed1450 Markus Bause. Optimal order error analysis for Galerkin–collocation approximation of wave problems and related schemes.
- Wed1515 Christian Wieners. A space-time DPG method for acoustic waves in heterogeneous media.

Wed 1400–1540 LECT068 MS 16: Recent advances in goal-oriented adaptivity

Organisers: Sara Pollock and Natasha Sharma

- Wed1400 M. P. Bruchhäuser. Duality based space-time adaptivity for convection-dominated problems.
- Wed1425 Vincent Darrigrand. A Painless Automatic Goal-Oriented hp -Adaptive Strategy for Non-Elliptic Problems.
- Wed1450 Stefan Frei. An adaptive Newton algorithm for optimal control problems with application to optimal electrode design.
- Wed1515 Martin Licht. Finite Element Methods for the Curl-Curl Equation with Mixed Boundary Conditions.

**Wed 1400–1540 LECT011/ MS 7: The Mathematics of Hybrid Particle Mesh Methods
Organisers: Matthias Möller, Robert Jan Labeur and Deborah Sulsky**

Wed1400 Martin Berzins. Time Integration Errors and Energy Conservation Properties of the Stormer Verlet Method Applied to MPM.

Wed1425 W.M. Coombs. On the incompatibility of traditional Lagrangian mechanics and the material point method.

Wed1450 Robert Jan Labeur. A locally conservative particle-mesh strategy for hyperbolic conservation laws.

Wed1515 P.J. Vardon. Towards an oscillation free (implicit) material point method.

Wed 1400–1540 HWLL001 MS 8: Adaptive and property preserving finite element methods

Organisers: Fleurianne Bertrand, Pavel Bochev and Jörg Schröder

Wed1400 Gabriel R. Barrenechea. Low-order divergence-free finite element methods in fluid mechanics.

Wed1425 Daniele Boffi. A posteriori error analysis for the mixed Laplace eigenvalue problem.

Wed1450 Christoph Lohmann. Algebraic flux correction for advection problems and its extension to symmetric tensor fields.

Wed1515 R. Milani. The unsteady, incompressible Stokes equations with Compatible Discrete Operator schemes.

**Wed 1610–1840 LECT061 MS 9: Recent advancements in p and hp Galerkin methods
Organisers: Lorenzo Mascotto, Alexey Chernov and Zhaonan Dong**

Wed1610 Thomas P. Wihler. The hp -version discontinuous Galerkin time stepping scheme is uniformly L^∞ -stable.

Wed1635 Emmanuil H. Georgoulis. Hypocoercivity compatible hp -FEM for kinetic equations.

Wed1700 Paola F. Antonietti. High-order discontinuous Galerkin methods for elasto-acoustic wave propagation problems on polygonal and polyhedral grids.

Wed1725 Matthias Maischak. Parallel solvers with Additive Schwarz Preconditioning for High-Order Transport problems.

Wed1750 Iain Smears. Equivalence of local- and global-best approximations in $H(\text{div})$ with Raviart–Thomas–Nédélec elements.

Wed 1610–1840 LECT062 Parallel session:

Chair: Simon Shaw

Wed1610 Karel Segeth. Variational smooth interpolation using polyharmonic splines.

Wed1635 L. Pinto. Numerical analysis of a porous elastic model for convection enhanced drug delivery.

Wed1700 Maximilian Bernkopf. Optimal convergence rates in L^2 for a first order system least squares finite element method.

Wed1725 T. K. Papathanasiou. *A priori* error estimates for a class of hydroelastic finite elements.

Wed1750 A. E. Karperaki. Convergence studies for a PML-FEM solver in water wave scattering problems.

Wed 1610–1840 LECT063 MS 1: Recent development and applications of discontinuous Galerkin methods

Organisers: Jennifer Ryan and Ethan Kubatko

- Wed1610 Sander Rhebergen. A space–time hybridizable discontinuous Galerkin method for the Navier–Stokes equations.
- Wed1635 Aycil Cesmelioglu. An HDG method for the Stokes–Darcy problem.
- Wed1700 Fred Vermolen. A discontinuous Galerkin Model for the simulation of chemotaxis process: application to stem cell injection after a myocardial infarction.
- Wed1725 M. Möller. Isogeometric Analysis for Compressible Flows in Complex Industrial Geometries.

Wed 1610–1840 LECT064 MS 24: PDE Eigenvalue Problems: Computational Modeling and Numerical Analysis

Organisers: Christian Engström, Stefano Giani, Nilima Nigam, Xuefeng Liu and Jeffrey Owall

- Wed1610 Benjamin Stamm. Guaranteed a posteriori bounds for eigenvalues and eigenvectors: multiplicities and clusters.
- Wed1635 Jiguang Sun. Finite Element Approximations for Several Non-Selfadjoint Eigenvalue Problems.
- Wed1700 G. Unger. Boundary element methods for electromagnetic resonance problems in open systems.
- Wed1725 Tomáš Vejchodský. Rigorous and fully computable a posteriori error bounds for eigenfunctions.
- Wed1750 M. Wess. Infinite elements for exterior Helmholtz resonance problems based on a frequency dependent complex scaling.
- Wed1825 E. Jamelot. Eigenproblem with low-regularity solution for nuclear reactor core modeling.

Wed 1610–1840 LECT065 MS 29: Development in efficient and compatible algorithms for porous media phenomena

Organisers: Shuyu Sun, Todd Arbogast, Huangxin Chen and Ivan Yotov

- Wed1610 Shuyu Sun. Physics-Preserving Algorithms for Multi-Phase Flow in Porous Media.
- Wed1635 Eric Chung. Multi-continua upscaling for flows in porous and fracture media.
- Wed1700 Michael G. Edwards. Unstructured Cvd-mpfa Reduced-dimensional Dfm Finite-volume methods For Two-phase Flow, Coupled With Higher Resolution Hybrid Upwind and Spectral-volume Methods.
- Wed1725 Ingeborg G. Gjerde. Analysis and Discretization of Coupled 1D-3D Flow Models.
- Wed1750 Manal Alotibi. GMsFEM for solving reduced Darcy flow model in fractured porous media.

Wed 1610–1840 LECT066 MS 22: High Performance Finite Element Techniques

Organisers: Carola Kruse, Martin Kühn and Marcus Mohr

- Wed1610 Axel Klawonn. Domain Decomposition in Computational Homogenization with Million-way Parallelism.
- Wed1635 Martin J. Kühn. On an efficient parallel implementation of adaptive FETI-DP with load balancing.
- Wed1700 Alexander Heinlein. The FROSch package in cardiovascular simulations.

Wed 1610–1840 LECT067 MS 3: Advances in Space-Time Finite Element Methods
Organisers: Markus Bause and Florin Radu

Wed1610 M. Feistauer. On the stability of the space-time discontinuous Galerkin method for nonlinear parabolic problems in time dependent domains.

Wed1635 V. Dolejší. Space-time discontinuous Galerkin method for the numerical solution of the Richards equation.

Wed1700 Andrea Cangiani. *hp*-version space-time discontinuous Galerkin methods for parabolic problems on general prismatic meshes..

Wed1725 Omar Lakkis. A posteriori analysis of *hp*-discontinuous Galerkin timestepping for fully discretized parabolic problems.

Wed 1610–1840 LECT068 MS 16: Recent advances in goal-oriented adaptivity
Organisers: Sara Pollock and Natasha Sharma

Wed1610 Matthias Maier. Duality-based model adaptivity for multiscale finite element methods.

Wed1635 Sara Pollock. Goal-oriented error estimation within the Generalized Multiscale Finite Element Method.

Wed1700 Sai-Mang Pun. Multiscale model reduction and its applications to goal-oriented error control..

Wed1725 T. Wick. Dual-weighted residual a posteriori error estimation for multiple goal functionals.

Wed 1610–1840 HWLL001 MS 8: Adaptive and property preserving finite element methods

Organisers: Fleurianne Bertrand, Pavel Bochev and Jörg Schröder

Wed1610 Marcel Moldenhauer. Weakly symmetric stress reconstruction and a posteriori error estimation for hyperelasticity.

Wed1635 Steffen Müntenmaier. First-order system least squares methods for sea ice models.

Wed1700 Gerhard Starke. Momentum-conservative stress approximation methods in elastoplasticity.

Thu 0830–1035 LECT061 MS 5: Theoretical and computational advances in polygonal and polyhedral methods

Organisers: Paola Antonietti, Andrea Cangiani, Franco Dassi, Daniele A. Di Pietro and Simon Lemaire

Thu0830 A. D’Auria. Refinement strategies for polygonal meshes and some applications to flow simulations in discrete fracture networks..

Thu0855 Emmanuil H. Georgoulis. *hp*-Version discontinuous Galerkin methods on essentially arbitrarily-shaped elements and their implementation.

Thu0920 S. M. Gomes. High order exact sequences of composite finite element approximations based on general meshes with interface constraints.

Thu0945 Thomas Kappas. GPU-accelerated discontinuous Galerkin methods on polytopic meshes.

Thu1010 Stella Krell. Optimized Schwarz algorithms for DDFV discretization.

Thu 0830–1035 LECT062 MS 33: Advances in Integral Equations

Organisers: Timo Betcke, David Hewett, Sam Groth and Garth Wells

- Thu0830 Timo Betcke. Bempp-cl: Fast GPU and CPU assembly of integral operators with OpenCL.
- Thu0855 Jan Bohn. Maxwell-LLG coupling via convolution quadrature.
- Thu0920 S. Chaillat. Anisotropic high-order adaptive Boundary Element Methods for 3D wave propagation.
- Thu0945 Kristof Cools. A Time Domain Combined Field Integral Equation Free from Constant-in-time and Resonant Instabilities.
- Thu1010 Adrianna Gillman. A fast direct solver for scattering problems in quasi-periodic layered medium.

Thu 0830–1035 LECT063 MS 1: Recent development and applications of discontinuous Galerkin methods

Organisers: Jennifer Ryan and Ethan Kubatko

- Thu0830 Florian Frank. Enforcing discrete maximum principles in DG schemes for scalar conservation laws.
- Thu0855 F. Yan. Positivity preserving higher order time-implicit local discontinuous Galerkin methods for nonlinear parabolic problems.
- Thu0920 Vidhi Zala. Toward positivity, monotonicity and boundedness preservation characteristics of polynomial projections using constrained optimization approach.
- Thu0945 Xiong Meng. Analysis of local discontinuous Galerkin methods with generalized numerical fluxes for linearized KdV equations.

Thu 0830–1035 LECT064 MS 27: High-frequency wave problems in heterogeneous media

Organisers: Euan Spence, Serge Nicaise and Stefan Sauter

- Thu0830 Théophile Chaumont-Frelet. Frequency-explicit convergence analysis for finite element discretizations of wave propagation problems in heterogeneous media.
- Thu0855 Leszek Demkowicz. Adaptive Multilevel Solvers for the Discontinuous Petrov-Galerkin Method with an Emphasis on High-frequency Wave Propagation Problems.
- Thu0920 Marcus J. Grote. Parallel Controllability Methods for the Helmholtz equation.
- Thu0945 Lise-Marie Imbert-Gérard. Interpolation properties of Generalized Plane Waves for the Convected Helmholtz equation.
- Thu1010 Andrea Moiola. Electromagnetic transmission problems: wavenumber-explicit bounds.

Thu 0830–1035 LECT065 MS 29: Development in efficient and compatible algorithms for porous media phenomena

Organisers: Shuyu Sun, Todd Arbogast, Huangxin Chen and Ivan Yotov

Thu0830 Jie Chen. Generalized multiscale approximation of mixed finite elements with velocity elimination for subsurface flow.

Thu0855 Huangxin Chen. Threshold dynamics method for topology optimization for fluids.

Thu0920 Xiaoping Xie. Convergence analysis of a Petrov-Galerkin method for fractional wave problems with nonsmooth data.

Thu0945 Qiaolin He. Modelling and numerical simulation of one-component two-phase flow with partial miscibility using generalized slip boundary condition.

Thu 0830–1035 LECT066 MS 11: Numerical methods in structural mechanics and for higher order problems

Organisers: Norbert Heuer, Neela Nataraj, Antti Niemi and Mira Schedensack

Thu0830 Francesco Bonaldi. A Hybrid High-Order method for Kirchhoff–Love plate bending problems .

Thu0855 F. Dassi. A C^1 Virtual Element Method on polyhedral meshes.

Thu0920 Zhaonan Dong. Discontinuous Galerkin methods for the biharmonic problem on polygonal and polyhedral meshes.

Thu0945 Jérôme Droniou. A general numerical analysis framework for linear and non-linear fourth-order problems.

Thu1010 Joscha Gedicke. C^0 interior penalty methods for an optimal control problem on nonconvex polygonal domains.

Thu 0830–1035 LECT067 MS 26: Numerical Methods for Continuum Solvation

Organisers: Benjamin Stamm and Filippo Lipparini

Thu0830 David A Case. Calculation of the solvent and ion atmosphere of macromolecules using 3D-RISM.

Thu0855 Daniel Borgis. Classical density functional theory approach to molecular solvation.

Thu0920 Walter Rocchia. Efficient molecular surface construction within and beyond the continuum solvation framework: the NanoShaper example.

Thu0945 Weihua Geng. Improvements to the treecode-accelerated boundary integral (TABI) Poisson-Boltzmann solver.

Thu 0830–1035 LECT068 MS 6: Novel adaptive discretization schemes for variational inequalities

Organisers: Gerhard Starke, Andreas Schröder

Thu0830 Andreas Veerer. On quasi-optimality of finite element methods for the obstacle problem.

Thu0855 Thirupathi Gudi. Discontinuous Skeletal Methods for the Obstacle Problem.

Thu0920 Thomas Führer. A least-squares finite element method for the obstacle problem.

Thu0945 Andreas Rademacher. A framework for applying the DWR method on variational inequalities.

Thu1010 Lothar Banz. hp-adaptive FEM for VIs in optimal control problems.

Thu 0830–1035 LECT011/ MS 12: Recent developments in the numerical approximation of transport equations

Organisers: Matthais Schlottbom and Herbert Egger

- Thu0830 Graham W. Alldredge. A regularized entropy-based moment method for kinetic equations.
- Thu0855 Jay Gopalakrishnan. Structure-aware Taylor time stepping for tent pitching schemes.
- Thu0920 Gerhard Kitzler. A spatial discontinuous Galerkin method with rescaled velocities for the Boltzmann equation.
- Thu0945 Olga Mula. An Adaptive Nested Source Term Iteration for Radiative Transfer Equations.
- Thu1010 Simon Pintarelli. Tensor-product discretization for the spatially inhomogeneous and transient Boltzmann equation in two dimensions.

Thu 0830–1035 HWLL001 Parallel session:

Chair: Michael Warby

- Thu0830 Dalibor Lukáš. A uniform parallel framework to large-scale finite element simulations of 3d wave-type equations.
- Thu0855 Lukáš Vacek. Numerical solution of traffic flow models.
- Thu0920 I. N. Giannakeas. Adaptive crack tip tracking and fracture simulation using coupled FE meshes and PD grids.
- Thu0945 P. Knobloch. On algebraically stabilized methods for convection-diffusion problems.
- Thu1010 G.F. Castelli. An efficient matrix-free finite element solver for the Cahn–Hilliard equation.

Thu 1400–1540 LECT061 MS 5: Theoretical and computational advances in polygonal and polyhedral methods

Organisers: Paola Antonietti, Andrea Cangiani, Franco Dassi, Daniele A. Di Pietro and Simon Lemaire

- Thu1400 L. Mascotto. The Trefftz virtual element method.
- Thu1425 Ilario Mazzieri. A Discontinuous Galerkin approximation to the elastodynamics equation on polygonal and polyhedral meshes.
- Thu1450 G. Manzini. The nonconforming virtual element method for elliptic problems.
- Thu1515 E. Natarajan. Virtual element methods for nonlinear problems.

Thu 1400–1540 LECT062 MS 33: Advances in Integral Equations

Organisers: Timo Betcke, David Hewett, Sam Groth and Garth Wells

- Thu1400 Samuel P. Groth. Finite-element and boundary-element simulations for high-intensity focused ultrasound modelling.
- Thu1425 David P. Hewett. Boundary element methods for acoustic scattering by fractal screens.
- Thu1450 Carlos Jerez-Hanckes. Fast Calderón Preconditioning for Helmholtz Boundary Integral Equations.
- Thu1515 Günther Of. A parallel space-time boundary element method for the heat equation.

Thu 1400–1540 LECT063 MS 4: FE analysis for optimal control problems

Organisers: Thomas Apel and Arnd Rösch

Thu1400 Konstantinos Chrysafinos. Finite element approximations for an optimal control problem related to Brusselator system.

Thu1425 S. Engel. Optimal Error Estimates for the Semi-Discrete Optimal Control Problem of the Wave Equation with Time-Depending Bounded Variation Controls.

Thu1450 Marita Holtmannspoetter. Numerical Analysis for the optimal control of simplified mechanical damage processes.

Thu1515 Arnd Rösch. FE error estimates for semilinear parabolic control problems in the absence of the Tikhonov term.

Thu 1400–1540 LECT064 MS 25: Design and analysis of finite element methods: compatibility and robustness

Organisers: Christian Kreuzer, Emmanuil Georgoulis and Pietro Zanotti

Thu1400 Zhaonan Dong. A-posteriori error estimator for hp -version discontinuous Galerkin methods on polygonal and polyhedral meshes.

Thu1425 Natalia Kopteva. A posteriori error estimation on anisotropic meshes.

Thu1450 N. Pignet. A Hybrid High-Order method for incremental associative plasticity with small deformations.

Thu1515 Thomas P. Wihler. Adaptive Iterative Linearization Galerkin Methods for Nonlinear Partial Differential Equations.

Thu 1400–1540 LECT065 MS 27: High-frequency wave problems in heterogeneous media

Organisers: Euan Spence, Serge Nicaise and Stefan Sauter

Thu1400 Peter Monk. Rigorous Couple Wave Analysis of one dimensional diffraction gratings.

Thu1425 Owen R. Pembroly. Nearby preconditioning for multiple realisations of the Helmholtz equation, with application to uncertainty quantification.

Thu1450 Romain Pierrat. Some contributions of the numerical simulation for waves propagation in complex media.

Thu1515 Claire Scheid. A study of light-matter interaction at the nanoscale: theoretical and numerical considerations.

Thu 1400–1540 LECT066 MS 11: Numerical methods in structural mechanics and for higher order problems

Organisers: Norbert Heuer, Neela Nataraj, Antti Niemi and Mira Schedensack

Thu1400 Norbert Heuer. A DPG method for the bi-Laplace equation.

Thu1425 A.H. Niemi. Numerical buckling analysis of circular cylindrical shells.

Thu1450 Kamana Porwal. Morley finite element method for an elliptic distributed optimal control problem with pointwise state and control constraint.

Thu1515 Natasha Sharma. Adaptive Weak Galerkin Method for Convection-Diffusion Problems.

Thu 1400–1540 LECT067 MS 21: Finite Element Methods for Multiphysics Problems
Organisers: Sander Rhebergen, Aycil Cesmelioglu and Jaap van der Vegt

- Thu1400 A. Rupp. A stable and conservative DG discretization for coupled shallow water–Darcy flow.
Thu1425 J.J.W. van der Vegt. Positivity Preserving Limiters for Time-Implicit Higher Order Discontinuous Galerkin Discretizations.
Thu1450 Garth N. Wells. Embedded/hybridized discontinuous Galerkin method for incompressible flows.
Thu1515 Ivan Yotov. A mixed elasticity formulation for fluid poroelastic structure interaction.

Thu 1400–1540 LECT068 MS 6: Novel adaptive discretization schemes for variational inequalities

Organisers: Gerhard Starke, Andreas Schröder

- Thu1400 Malte Winckler. AFEM for elliptic-H(curl) variational inequalities of the second kind.
Thu1425 Mirjam Walloth. Residual-type a posteriori estimators for the singularly perturbed variational inequality in quasi-static fracture phase-field models.
Thu1450 Fleurianne Bertrand. Equilibrated stress approximation and error estimation with application to solid mechanics.
Thu1515 B. Kober. Reconstruction-based a-posteriori error estimation in stress-based FEM for frictional contact problems.

Thu 1400–1540 LECT011/ MS 19: Numerical Methods for Phase Field Fracture Problems

Organisers: Thomas Wick, Winnifried Wollner and Laura de Lorenzis

- Thu1400 Timo Heister. A parallel, adaptive phase-field fracture code.
Thu1425 Emilio Martínez-Pañeda. Phase field fracture modelling of hydrogen embrittlement.
Thu1450 Masoumeh Mohammadi. A priori error estimates for a fracture control problem.
Thu1515 D. Jodlbauer. Matrix-Free Multigrid for Phase-Field Fracture Problems.

Thu 1610–1815 LECT061 MS 5: Theoretical and computational advances in polygonal and polyhedral methods

Organisers: Paola Antonietti, Andrea Cangiani, Franco Dassi, Daniele A. Di Pietro and Simon Lemaire

- Thu1610 J. S. Owall. Trefftz finite elements on meshes consisting curvilinear polygons.
Thu1635 N. Pignet. Hybrid High-Order discretizations combined with Nitsche’s method for contact with Tresca friction in small strain elasticity.
Thu1700 Alessandro Russo. The Virtual Element Method for curved polygons: state of the art and perspectives.
Thu1725 Oliver Sutton. Solving parabolic problems on adaptive polygonal meshes with virtual element methods.
Thu1750 Giuseppe Vacca. The Stokes complex for Virtual Elements.

Thu 1610–1815 LECT062 MS 33: Advances in Integral Equations
Organisers: Timo Betcke, David Hewett, Sam Groth and Garth Wells

- Thu1610 Dirk Praetorius. Adaptive BEM with inexact PCG solver yields almost optimal computational costs.
- Thu1635 Sergej Rjasanow. Fast boundary element methods for composite materials.
- Thu1700 Matthew Scroggs. Weakly imposing boundary conditions on the boundary element method using a penalty method.
- Thu1725 Olaf Steinbach. Space-Time BEM for the Heat Equation.
- Thu1750 Jan Zapletal. Parallel adaptive cross approximation for distributed memory systems.

Thu 1610–1815 LECT063 MS 4: FE analysis for optimal control problems
Organisers: Thomas Apel and Arnd Rösch

- Thu1610 J. Pfefferer. Finite element error estimates in L^2 for regularized discrete approximations to the obstacle problem.
- Thu1635 Jens Baumgartner. Optimal control problems and algebraic flux correction schemes.
- Thu1700 Bernhard Endtmayer. Multigoal-oriented error control for optimal control problems.
- Thu1725 Winnifried Wollner. Finite element error in the control of damage processes.

Thu 1610–1815 LECT064 MS 25: Design and analysis of finite element methods: compatibility and robustness
Organisers: Christian Kreuzer, Emmanuil Georgoulis and Pietro Zanotti

- Thu1610 Sarah Roggendorf. A non-linear Petrov-Galerkin method for convection-dominated problems.
- Thu1635 Joachim Schöberl. Refined a posteriori error estimation for classical and pressure-robust Stokes finite element methods.
- Thu1700 Kristoffer G. van der Zee. Quasi-optimal residual minimization for weak advection–reaction in Banach spaces.
- Thu1725 Andreas Veerer. Locking and coupling in finite element approximation.
- Thu1750 Andreas Wachtel. On the inf-sup stability of the lowest order Taylor-Hood pair on affine anisotropic meshes.

Thu 1610–1815 LECT065 MS 27: High-frequency wave problems in heterogeneous media
Organisers: Euan Spence, Serge Nicaise and Stefan Sauter

- Thu1610 Céline Torres. Scattering problems with oscillating, non-periodic and discontinuous wave speed.
- Thu1635 Barbara Verfürth. Computational high-frequency wave propagation in heterogeneous high-contrast media.

Thu 1610–1815 LECT066 MS 11: Numerical methods in structural mechanics and for higher order problems

Organisers: Norbert Heuer, Neela Nataraj, Antti Niemi and Mira Schedensack

Thu1610 Walter Zulehner. A unified approach for mixed formulations of elliptic problems with applications in structural mechanics.

Thu 1610–1815 LECT067 MS 18: Shape Optimization: Theory and Practice

Organisers: Alberto Paganini and Kevin Sturm

Thu1610 Michel C. Delfour. Free and Moving Boundary Problems and Transfinite Interpolations.

Thu1635 Martin Berggren. Shape optimization of acoustic devices using CutFEM and level-set geometry descriptions.

Thu1700 J. Haubner. Numerical realization of shape optimization for unsteady fluid-structure interaction.

Thu1725 Bastien Chaudet-Dumas. Shape optimization for the augmented Lagrangian formulation of contact problems.

Thu1750 Peter Gangl. Multi-material topology optimization based on topological derivatives.

Thu 1610–1815 LECT068 MS 21: Finite Element Methods for Multiphysics Problems

Organisers: Sander Rhebergen, Aycil Cesmelioglu and Jaap van der Vegt

Thu1610 Prince Chidyagwai. Multirate methods for coupled free flow with porous media flow problems.

Thu1635 Paulo Zúñiga. A posteriori error analysis of a conforming four-field formulation for Biot's consolidation model in poroelasticity.

Thu1700 Keegan Kirk. Analysis of a space-time hybridizable discontinuous Galerkin method for the advection-diffusion problem on time-dependent domains.

Thu1725 Paul E. Méndez. A divergence free Galerkin numerical scheme for double-diffusion equations in porous media.

Thu 1610–1815 LECT011/ MS 12: Recent developments in the numerical approximation of transport equations

Organisers: Matthais Schlottbom and Herbert Egger

Thu1610 Benjamin Söllner. A convergent Lagrangian discretization for p -Wasserstein and flux-limited diffusion equations.

Thu1635 R.P. Stevenson. Adaptive strategies for transport equations.

Thu1700 Mohammad Zakerzadeh. Guaranteed and robust L^2 a posteriori error estimates for 1D linear advection problems.

Thu 1610–1815 HWLL001 MS 7: The Mathematics of Hybrid Particle Mesh Methods

Organisers: Matthias Möller, Robert Jan Labeur and Deborah Sulsky

Thu1610 Elizaveta Wobbes. Comparison and unification of material point and optimal transportation meshfree methods.

Thu1635 R. Tielen. A High-Order B-spline Material Point Method.

Thu1700 P.J. Vardon. Application of boundary conditions in MPM.

Fri 0855–1035 LECT061 MS 5: Theoretical and computational advances in polygonal and polyhedral methods

Organisers: Paola Antonietti, Andrea Cangiani, Franco Dassi, Daniele A. Di Pietro and Simon Lemaire

- Fri0855 Frédéric Valentin. The MHM Method on Non-Conforming Polygonal Meshes.
Fri0920 M. Verani. The conforming virtual element method for polyharmonic problems.

Fri 0855–1035 LECT062 MS 18: Shape Optimization: Theory and Practice
Organisers: Alberto Paganini and Kevin Sturm

- Fri0855 R. Hiptmair. Shape Gradients in Finite Element Exterior Calculus.
Fri0920 Anton Schiela. Second order directional shape derivatives of integrals on submanifolds.
Fri0945 Florian Wechsung. Automated Shape Differentiation in FEniCS and Firedrake.
Fri1010 A. Paganini. Fireshape: a shape optimization toolbox for Firedrake.

Fri 0855–1035 LECT063 MS 4: FE analysis for optimal control problems
Organisers: Thomas Apel and Arnd Rösch

- Fri0855 Neela Nataraj. Morley FEM for a distributed optimal control problem governed by the von Kármán equations.
Fri0920 Thomas Apel. Numerical analysis for Dirichlet control problems.
Fri0945 M. Winkler. Error estimates for normal derivatives and Dirichlet control problems on boundary concentrated meshes.

Fri 0855–1035 LECT064 MS 25: Design and analysis of finite element methods: compatibility and robustness
Organisers: Christian Kreuzer, Emmanuil Georgoulis and Pietro Zanotti

- Fri0855 Dimitra Plaka. *A posteriori* error estimates for the Allen-Cahn problem.
Fri0920 Pietro Zanotti. A quasi-optimal and pressure robust nonconforming discretization of the Stokes equations.

Fri 0830–1035 LECT065 MS 30: Numerical methods for optics and photonics
Organisers: Youngjoon Hong and David Nicholls

- Fri0830 David P. Nicholls. High-order spectral simulation of graphene ribbons.
Fri0855 Nilima Nigam. On the spectral geometry of Steklov eigenvalue problems.
Fri0920 Xin Tong. Simulation of Localized Surface Plasmon Resonances via Dirichlet-Neumann Operators and Impedance-Impedance Operators.
Fri0945 David P. Hewett. Hybrid numerical-asymptotic boundary element methods for high frequency transmission problems.
Fri1010 Peter Monk. Optimizing the Design of Thin Film Solar Cells.

Fri 0855–1035 LECT066 Parallel session:

Chair: Nenad Djordjevic

Fri0855 J.C. Campbell. Modelling friction in a particle to particle SPH contact algorithm..

Fri0920 T. De Vuyst. Coupling of finite element method and Smoothed Particle Hydrodynamics for modelling high-velocity impact damage in composite materials.

Fri0945 K. Hughes. Predicting the ballistic response of aluminium sandwich panels..

Fri1010 A. Wasilczuk. Development of constitutive model for fibre reinforced composite damage.

Fri 0855–1035 LECT067 MS 26: Numerical Methods for Continuum Solvation

Organisers: Benjamin Stamm and Filippo Lipparini

Fri0855 John M. Herbert. Quantum chemistry in arbitrary dielectric environments.

Fri0920 Michele Nottoli. Quantum calculations in solution with domain decomposition polarizable continuum model.

Fri0945 Oliviero Andreussi. Non-local smooth interfaces in continuum solvation.

Times and rooms of speakers

Tue1425, LECT064	Ahlkrona, Josefin	Wed0945, LECT067	Ciaramella, Gabriele
Tue1400, LECT061	Ainsworth, Mark	Wed0855, LECT011/	Ciarlet, P.
Thu0830, LECT011/	Alldredge, Graham W.	Thu0945, LECT062	Cools, Kristof
Wed1750, LECT065	Alotibi, Manal	Wed1425, LECT011/	Coombs, W.M.
Fri0945, LECT067	Andreussi, Oliviero	Tue1425, LECT067	Cusseddu, D.
Wed1425, LECT067	Anselmann, M.	Wed1425, LECT068	Darrigrand, Vincent
Wed1700, LECT061	Antonietti, Paola F.	Thu0855, LECT066	Dassi, F.
Tue1655, LECT068	Antonietti, Paola F.	Thu0830, LECT061	D'Auria, A.
Fri0920, LECT063	Apel, Thomas	Tue1400, HWLL001	Davies, Penny J
Tue1655, LECT064	Arjmand, Doghonay	Wed0830, LECT063	Dedner, Andreas
Tue1400, LECT065	Bajpai, Saumya	Tue1425, LECT068	Delay, Guillaume
Thu1010, LECT068	Banz, Lothar	Thu1610, LECT067	Delfour, Michel C.
Wed1400, HWLL001	Barrenechea, Gabriel R.	Tue1605, LECT062	del Teso, F.
Thu1635, LECT063	Baumgartner, Jens	Thu0855, LECT064	Demkowicz, Leszek
Wed1450, LECT067	Bause, Markus	Fri0920, LECT066	De Vuyst, T.
Thu1635, LECT067	Berggren, Martin	Wed0855, LECT066	Di Pietro, Daniele A.
Wed1700, LECT062	Bernkopf, Maximilian	Wed1635, LECT067	Dolejší, V.
Thu1450, LECT068	Bertrand, Fleurianne	Wed0830, LECT064	Domínguez, S.
Wed1400, LECT011/	Berzins, Martin	Thu1400, LECT064	Dong, Zhaonan
Tue1605, LECT066	Bespalov, Alex	Wed1400, LECT063	Dong, Bo
Thu0830, LECT062	Betcke, Timo	Thu0920, LECT066	Dong, Zhaonan
Wed1425, HWLL001	Boffi, Daniele	Thu0945, LECT066	Droniou, Jérôme
Thu0855, LECT062	Bohn, Jan	Wed1450, LECT061	Droniou, Jérôme
Tue1720, LECT062	Bolin, David	Wed1450, LECT065	Duan, Huoyuan
Thu0830, LECT066	Bonaldi, Francesco	Thu1100, HWLL001	Dulikravich, George S.
Tue1400, LECT011/	Bonnet, Guillaume	Tue1425, HWLL001	Duncan, Dugald B
Thu0855, LECT067	Borgis, Daniel	Wed1700, LECT065	Edwards, Michael G.
Wed1400, LECT061	Borio, Andrea	Tue1400, LECT066	Eigel, Martin
Wed1425, LECT061	Botti, Lorenzo	Tue1630, LECT062	Endal, Jørgen
Wed1450, LECT066	Bovet, C.	Thu1700, LECT063	Endtmayer, Bernhard
Wed1145, HWLL001	Brezzi, Franco	Thu1425, LECT063	Engel, S.
Wed1400, LECT068	Bruchhäuser, M. P.	Wed0855, LECT064	Engström, Christian
Tue1425, LECT065	Brunk, A.	Tue1450, LECT061	Feischl, Michael
Fri0855, LECT066	Campbell, J.C.	Tue1605, HWLL001	Feischl, Michael
Tue1400, LECT067	Campillo-Funollet, Eduard	Wed1610, LECT067	Feistauer, M.
Wed1700, LECT067	Cangiani, Andrea	Thu0830, LECT063	Frank, Florian
Tue1605, LECT061	Canuto, Claudio	Wed1450, LECT068	Frei, Stefan
Wed0920, LECT011/	Carvalho, C.	Tue1450, LECT068	Frei, Stefan
Thu0830, LECT067	Case, David A	Tue1425, LECT011/	Friebel, Elisa
Wed1515, LECT061	Castanon Quiroz, Daniel	Tue1450, LECT067	Frittelli, Massimo
Thu1010, HWLL001	Castelli, G.F.	Thu0920, LECT068	Führer, Thomas
Wed1635, LECT063	Cesmelioglu, Aycil	Thu1750, LECT067	Gangl, Peter
Thu0920, LECT062	Chaillat, S.	Wed0920, LECT064	Gardini, F.
Thu1725, LECT067	Chaudet-Dumas, Bastien	Tue1515, LECT068	Gastaldi, Lucia
Thu0830, LECT064	Chaumont-Frelet, Théophile	Thu1010, LECT066	Gedicke, Joscha
Thu0855, LECT065	Chen, Huangxin	Thu0945, LECT067	Geng, Weihua
Thu0830, LECT065	Chen, Jie	Wed1635, LECT061	Georgoulis, Emmanuil H.
Thu1610, LECT068	Chidyagwai, Prince	Thu0855, LECT061	Georgoulis, Emmanuil H.
Thu1400, LECT063	Chrysaftinos, Konstantinos	Tue1145, HWLL001	Ghattas, Omar
Tue1720, LECT064	Chung, Eric	Wed0945, LECT064	Giani, S.
Wed1635, LECT065	Chung, Eric	Tue1515, LECT061	Giani, S.

Thu0920, HWLL001	Giannakeas, I. N.	Thu0945, HWLL001	Knobloch, P.
Wed0830, LECT011/	Gibson, Nathan L.	Thu1515, LECT068	Kober, B.
Wed0945, LECT063	Giesselmann, Jan	Thu1425, LECT064	Kopteva, Natalia
Tue1630, HWLL001	Gilbert, Alexander	Tue1450, LECT062	Kopteva, Natalia
Thu1010, LECT062	Gillman, Adrianna	Wed1515, LECT062	Kovács, Balázs
Tue1400, LECT063	Gimperlein, Heiko	Wed0830, LECT067	Krasny, Robert
Wed1725, LECT065	Gjerde, Ingeborg G.	Thu1010, LECT061	Krell, Stella
Thu0920, LECT061	Gomes, S. M.	Wed0945, LECT066	Kruse, C.
Thu0855, LECT011/	Gopalakrishnan, Jay	Wed1635, LECT066	Kühn, Martin J.
Wed1515, LECT066	Gosselet, Pierre	Wed1450, LECT011/	Labeur, Robert Jan
Tue1450, LECT065	Goswami, Deepjyoti	Wed1725, LECT067	Lakkis, Omar
Thu0920, LECT064	Grote, Marcus J.	Tue1655, HWLL001	Law, Kody
Thu1400, LECT062	Groth, Samuel P.	Wed0920, LECT061	Ledger, P.D.
Wed1515, LECT064	Grubišić, L.	Wed0830, LECT068	Legoll, Frédéric
Thu0855, LECT068	Gudi, Thirupathi	Tue1630, LECT068	Lehrenfeld, Christoph
Tue1515, HWLL001	Gupta, Jhuma Sen	Wed0920, LECT063	Li, Xiaozhou
Wed1425, LECT063	Hack, S.A.	Wed0855, LECT068	Li, Guanglian
Wed1400, LECT064	Hakula, Harri	Wed1425, LECT062	Li, Buyang
Wed0855, LECT067	Hassan, Muhammad	Wed0945, LECT011/	Li, Jichun
Thu1700, LECT067	Haubner, J.	Wed1515, LECT068	Licht, Martin
Tue1425, LECT063	Hauser, Julia I.M.	Wed1450, LECT064	Liu, Xuefeng
Thu0945, LECT065	He, Qiaolin	Wed1010, LECT011/	Liu, Jinjie
Wed1700, LECT066	Heinlein, Alexander	Wed1450, HWLL001	Lohmann, Christoph
Thu1400, LECT011/	Heister, Timo	Thu0830, HWLL001	Lukáš, Dalibor
Tue1630, LECT064	Henning, Patrick	Wed1610, LECT068	Maier, Matthias
Fri0855, LECT067	Herbert, John M.	Wed1725, LECT061	Maischak, Matthias
Thu1400, LECT066	Heuer, Norbert	Tue1605, LECT064	Mälqvist, Axel
Thu1425, LECT062	Hewett, David P.	Thu1450, LECT061	Manzini, G.
Fri0945, LECT065	Hewett, David P.	Thu1425, LECT011/	Martínez-Pañeda, Emilio
Thu1145, HWLL001	Hiptmair, R.	Thu1400, LECT061	Mascotto, L.
Fri0855, LECT062	Hiptmair, R.	Wed1400, LECT067	Matthies, Gunar
Thu1450, LECT063	Holtmannspoetter, Marita	Thu1425, LECT061	Mazzieri, Ilario
Wed1450, LECT063	Hong, Xue	Wed0945, LECT061	Melenk, J.M.
Fri1145, HWLL001	Houston, Paul	Tue1655, LECT062	Melenk, J.M.
Fri0945, LECT066	Hughes, K.	Thu1725, LECT068	Méndez, Paul E.
Wed0920, LECT066	Hülsemann, Frank	Thu0945, LECT063	Meng, Xiong
Thu0945, LECT064	Imbert-Gérard, Lise-Marie	Tue1450, LECT011/	Mérigot, Quentin
Wed1425, LECT064	Imeri, K.	Wed1515, HWLL001	Milani, R.
Wed1825, LECT064	Jamelot, E.	Wed0830, LECT061	Miraçi, Ani
Tue1515, LECT065	Jang, Yongseok	Wed1725, LECT063	Möller, M.
Tue1605, LECT068	Jankuhn, Thomas	Thu1450, LECT011/	Mohammadi, Masoumeh
Thu1450, LECT062	Jerez-Hanckes, Carlos	Wed1400, LECT066	Mohr, Marcus
Tue1450, HWLL001	Jha, Abhinav	Thu1010, LECT064	Moiola, Andrea
Wed0830, LECT062	Jin, Bangti	Wed1610, HWLL001	Moldenhauer, Marcel
Fri1100, HWLL001	Jivkov, Andrey	Fri1010, LECT065	Monk, Peter
Thu1515, LECT011/	Jodlbauer, D.	Thu1400, LECT065	Monk, Peter
Thu0945, LECT061	Kappas, Thomas	Wed1010, LECT066	Müller, E.H.
Tue1425, LECT062	Karaa, Samir	Thu0945, LECT011/	Mula, Olga
Wed1750, LECT062	Karperaki, A. E.	Wed1635, HWLL001	Münzenmaier, Steffen
Tue1630, LECT066	Khan, Arbaz	Tue1515, LECT067	Murphy, Laura
Thu1700, LECT068	Kirk, Keegan	Wed1010, LECT062	Mustapha, Kassem
Thu0920, LECT011/	Kitzler, Gerhard	Fri0855, LECT063	Nataraj, Neela
Wed1610, LECT066	Klawonn, Axel	Thu1515, LECT061	Natarajan, E.

Fri0830, LECT065	Nicholls, David P.	Tue1515, LECT063	Schanz, M.
Thu1425, LECT066	Niemi, A.H.	Wed1100, HWLL001	Scheichl, Robert
Fri0855, LECT065	Nigam, Nilima	Thu1515, LECT065	Scheid, Claire
Tue0945, HWLL001	Nochetto, Ricardo H.	Tue1655, LECT061	Schetzke, E.M.
Tue1605, LECT065	Notsu, Hirofumi	Fri0920, LECT062	Schiela, Anton
Fri0920, LECT067	Nottoli, Michele	Tue1450, LECT064	Schindler, Felix
Thu1515, LECT062	Of, Günther	Tue1720, LECT066	Schmidlin, Marc
Wed1010, LECT064	Ovall, J. S.	Thu1635, LECT064	Schöberl, Joachim
Thu1610, LECT061	Ovall, J. S.	Tue1425, LECT061	Schröder, Andreas
Fri1010, LECT062	Paganini, A.	Thu1700, LECT062	Scroggs, Matthew
Tue1630, LECT065	Pani, Amiya Kumar	Wed1610, LECT062	Segeth, Karel
Wed1725, LECT062	Papathanasiou, T. K.	Thu1515, LECT066	Sharma, Natasha
Thu1425, LECT065	Pembery, Owen R.	Tue1605, LECT063	Shukla, Poorvi
Tue1605, LECT067	Peng, Qiyao	Wed1750, LECT061	Smears, Iain
Wed0920, LECT068	Persson, Anna	Tue1605, LECT011/	Smears, Iain
Wed0830, HWLL001	Peszynska, Malgorzata	Thu1610, LECT011/	Söllner, Benjamin
Thu1610, LECT063	Pfefferer, J.	Wed0855, LECT062	Sousa, Ercilia
Thu1450, LECT065	Pierrat, Romain	Wed1610, LECT064	Stamm, Benjamin
Thu1450, LECT064	Pignet, N.	Wed1700, HWLL001	Starke, Gerhard
Thu1635, LECT061	Pignet, N.	Thu1725, LECT062	Steinbach, Olaf
Thu1010, LECT011/	Pintarelli, Simon	Thu1635, LECT011/	Stevenson, R.P.
Wed1635, LECT062	Pinto, L.	Tue1630, LECT063	Stocek, J.
Fri0855, LECT064	Plaka, Dimitra	Tue1655, LECT063	Stocker, Paul
Wed1635, LECT068	Pollock, Sara	Wed1635, LECT064	Sun, Jiguang
Wed0855, HWLL001	Pop, Iuliu Sorin	Wed1610, LECT065	Sun, Shuyu
Thu1450, LECT066	Porwal, Kamana	Thu1725, LECT061	Sutton, Oliver
Tue1515, LECT064	Pouchon, Timothée	Thu1635, HWLL001	Tielen, R.
Thu1610, LECT062	Praetorius, Dirk	Fri0920, LECT065	Tong, Xin
Wed1700, LECT068	Pun, Sai-Mang	Thu1610, LECT065	Torres, Céline
Wed0920, LECT067	Quan, Chaoyu	Tue1720, LECT065	Toulopoulos, Ioannis
Thu0945, LECT068	Rademacher, Andreas	Wed1700, LECT064	Unger, G.
Wed0920, HWLL001	Radu, F. A.	Tue1720, LECT063	Urzúa-Torres, Carolina
Tue1830, ESGW Aud	Reed, Julian M	Thu1750, LECT061	Vacca, Giuseppe
Wed0945, HWLL001	Remesan, Gopikrishnan C.	Thu0855, HWLL001	Vacek, Lukáš
Wed1610, LECT063	Rhebergen, Sander	Fri0855, LECT061	Valentin, Frédéric
Wed1010, LECT061	Rieder, Alexander	Thu1425, LECT067	van der Vegt, J.J.W.
Thu1635, LECT062	Rjasanow, Sergej	Thu1700, LECT064	van der Zee, Kristoffer G.
Thu0920, LECT067	Rocchia, Walter	Thu1700, HWLL001	Vardon, P.J.
Thu1515, LECT063	Rösch, Arnd	Wed1515, LECT011/	Vardon, P.J.
Thu1610, LECT064	Roggendorf, Sarah	Thu1725, LECT064	Veeser, Andreas
Tue1515, LECT066	Ruggeri, Michele	Thu0830, LECT068	Veeser, Andreas
Wed1425, LECT065	Rui, Hongxing	Wed1725, LECT064	Vejchodský, Tomáš
Tue1400, LECT064	Runborg, O.	Tue1630, LECT061	Verani, M.
Thu1400, LECT067	Rupp, A.	Fri0920, LECT061	Verani, M.
Thu1700, LECT061	Russo, Alessandro	Thu1635, LECT065	Verfürth, Barbara
Tue1100, HWLL001	Ryan, Jennifer K.	Tue1630, LECT067	Vermolen, Fred
Tue1655, LECT065	Saedpanah, Fardin	Wed1700, LECT063	Vermolen, Fred
Tue1515, LECT011/	Salgado, Abner J.	Tue1450, LECT066	Vidličková, Eva
Wed0855, LECT061	Sauter, S.	Tue1720, LECT061	Vohralík, Martin
Wed1400, LECT062	Sauter, S.	Thu1750, LECT064	Wachtel, Andreas
Tue1655, LECT066	Schaden, Daniel	Thu1425, LECT068	Walloth, Mirjam
Tue1515, LECT062	Schädle, A.	Wed0945, LECT062	Wang, Jilu
Tue1450, LECT063	Schafelner, Andreas	Fri1010, LECT066	Wasilczuk, A.

Fri0945, LECT062	Wechsung, Florian	Thu0855, LECT063	Yan, F.
Wed1425, LECT066	Weinzierl, Tobias	Wed0920, LECT062	Yan, Yubin
Thu1450, LECT067	Wells, Garth N.	Thu1515, LECT067	Yotov, Ivan
Wed1750, LECT064	Wess, M.	Wed1400, LECT065	Yotov, Ivan
Wed1725, LECT068	Wick, T.	Thu1700, LECT011/	Zakerzadeh, Mohammad
Wed1515, LECT067	Wieners, Christian	Thu0920, LECT063	Zala, Vidhi
Thu1515, LECT064	Wihler, Thomas P.	Wed0855, LECT065	Zank, Marco
Wed1610, LECT061	Wihler, Thomas P.	Fri0920, LECT064	Zanotti, Pietro
Thu1400, LECT068	Winckler, Malte	Thu1750, LECT062	Zapletal, Jan
Fri0945, LECT063	Winkler, M.	Tue1630, LECT011/	Zhang, Wujun
Wed0830, LECT065	Wintersteiger, Christoph	Wed0855, LECT063	Zhang, Qiang
Tue1655, LECT067	Wittwer, Lucas D.	Wed1450, LECT062	Zheng, Chunxiong
Thu1610, HWLL001	Wobbes, Elizaveta	Tue1400, LECT062	Zhou, Zhi
Thu1725, LECT063	Wollner, Winnifried	Wed0920, LECT065	Ziegler, Daniel
Wed1515, LECT065	Wu, Chengda	Thu1610, LECT066	Zulehner, Walter
Thu0920, LECT065	Xie, Xiaoping	Thu1635, LECT068	Zúñiga, Paulo
Tue1425, LECT066	Xu, Feng		