

MAFELAP 2006 PROGRAMME – Tue 13 – Fri 16 June 2006 –Brief version

TUE 0845–0930: Registration in the the foyer of the Howell building

TUE 0930–0940: Opening: Vice Chancellor, **Chris Jenks**

Chair: **H. T. Banks**

TUE 0940–1030

Dynamic data-driven finite element models of laser treatment of prostate cancer

J. Tinsley Oden

TUE 1030–1100: COFFEE in H004 (Howell building)

TUE 1100–1145

Survey on Convergence of Adaptive Finite Element Methods

Carsten Carstensen

TUE 1145–1230

A Synthesis of A Posteriori Error Estimation Techniques for Conforming, Non-Conforming and Discontinuous Galerkin Finite Element Methods

Mark Ainsworth

TUE 1230–1400: LUNCH in the Newton/Mead/Cavendish Rooms in the Hamilton Centre (Refectory)

Time	A: H001	B: LC065	C: LC067	D: LC068	E: LC267	F: LC268	G: LC215
	Geoscience Michael Edwards and Mary Wheeler	BEM Norbert Heuer and Ernst Stephan	Pattern Formation Matthias Winter	PML R. Rodríguez and A. Bermúdez	Maxwell's Equations Daniele Boffi and Leszek Demkowicz	Reliability Carsten Carstensen and Stefan Funken	Hybrid Decomposition Ulrich Langer, Barbara Wohlmuth and Alex Klawonn
TU 1400	geophysics Yotov	bem Hsiao	pattern Wathen	pml Diaz	maxwell Pasciak	reliability Stevenson	hybriddecomp Heinrich
TU 1425	geophysics Edwards	bem Meddahi	pattern Wei	pml Bramble	maxwell Ciarlet, Jr	reliability Dörfler	hybriddecomp Steinbach
TU 1450	geophysics Christie	bem Domínguez	pattern Winter	pml Legendre	maxwell Dauge	reliability Siebert	hybriddecomp Discacciati
TU 1515	geophysics Jaffré	bem Stephan	pattern Norbury	pml Monk	maxwell Gastaldi	reliability Veeseer	hybriddecomp Scheichl

TUE 1540–1610: TEA in H004 (Howell building)

Time	A: H001	B: LC065	C: LC067	D: LC068	E: LC267	F: LC268	G: LC215
	Geoscience Michael Edwards and Mary Wheeler	BEM Norbert Heuer and Ernst Stephan	Fully Nonlinear Systems Klaus Böhmer and Oleg Davydov	PML R. Rodríguez and A. Bermúdez	Maxwell's Equations Daniele Boffi and Leszek Demkowicz	Reliability Carsten Carstensen and Stefan Funken/ Parallel session	Parallel session Paul Houston
TU 1610	geophysics Dahle	bem Gwinner	nonlinearpdes Böhmer	pml Petropoulos	maxwell Hiptmair	reliability Bespalov	Parallel Parvizian
TU 1635	geophysics Russell	bem Mikhailov	nonlinearpdes Böhmer	pml Prieto	maxwell Kurtz	Parallel Armentano	Parallel Heisserer
TU 1700	geophysics Arbogast	bem Costabel	nonlinearpdes Davydov	pml Demkowicz	maxwell Christiansen		Parallel Georgoulis

Chair: **John Whiteman**

TUE 1730–1815

ZIENKIEWICZ LECTURE

Coupling Mixed Finite Element and Galerkin Methods for Modeling Geomechanics

Mary Fanett Wheeler

TUE 1900, Buffet in the Newton/Mead/Atrium Rooms, Hamilton Centre (Refectory)

Wednesday 14 June 2006

Time	A: H001	B: LC065	C: LC067	D: LC068	E: LC267	F: LC268	G: LC215
	Geoscience Michael Edwards and Mary Wheeler/ Parallel session	BEM Norbert Heuer and Ernst Stephan	Resonances Thorsten Hohage and Joachim Schöberl	Advanced discretization Mikhail Shashkov	Maxwell's Equations Daniele Boffi and Leszek Demkowicz	Parallel session / A posteriori Paul Houston and I. Perugia	FEM in optimal control A. Rösch and B. Vexler
WE 0835	geophysics Klie	bem Sloan	resonance Schöberl	advanceddiscret Barlow	maxwell Zaglmayr	Parallel Giani	optimal Tröltzsch
WE 0900	geophysics Sammon	bem Tausch	resonance Koch	advanceddiscret Barth	maxwell Rachowicz	aposteriori Melenk	optimal Casas
WE 0925	geophysics Roberts	bem Sayas	resonance Finger	advanceddiscret Braeunig	maxwell Pardo	aposteriori Wihler	optimal Rösch
WE 0950	Parallel Bruch, Jr.	bem Bespalov	resonance Chinellato	advanceddiscret Després	maxwell Izsák	aposteriori Schötzau	optimal Apel
WE 1015	Parallel Bängtsson	bem Praetorius	resonance Hazard	advanceddiscret Morel	maxwell Ledger	aposteriori Perotto	optimal Hoppe

WED 1040–1110: COFFEE in H004 (Howell building)

Chair: **Mark Ainsworth**

WED 1110–1155

Boundary Element Analysis beyond the Trace Theorem

Norbert Heuer

WED 1155–1240

Domain decomposition methods for multiscale elliptic PDEs

Ivan Graham

WED 1240–1400: LUNCH in the Newton/Mead/Cavendish Rooms in the Hamilton Centre (Refectory)

Time	A: H001	B: LC065	C: LC067	D: LC068	E: LC267	F: LC268	G: LC215	H: LC115
	Advanced discretization Mikhail Shashkov/ Parallel session	BEM Norbert Heuer and Ernst Stephan	Resonances Thorsten Hohage and Joachim Schöberl/ Parallel session	DGM Miloslav Feistauer and Mary Wheeler	Magnetics Thomas Schrefl and M. Slodička	A posteriori Paul Houston and I. Perugia	FEM in optimal control A. Rösch and B. Vexler	Fast Iterative Solvers David Silvester
WE 1400	advanceddiscret Scovazzi	bem Langer	resonance Schmidt	dgm Dolejší	magnetics Clemens	aposteriori Sangalli	optimal Becker	fastsolvers Powell
WE 1425	advanceddiscret Shashkov	bem Of	resonance Zschiedrich	dgm Feistauer	magnetics Hamelinck	aposteriori Barth	optimal Liu	fastsolvers Silvester
WE 1450	Parallel Dalík	bem Harbrecht	resonance Nannen	dgm Wheeler	magnetics Hrkac	aposteriori Lovadina	optimal Vexler	fastsolvers Wathen
WE 1515		bem Rech	Parallel Huttunen		magnetics Janíková	aposteriori Tavener		fastsolvers Pasciak

WED 1540–1610: TEA in H004 (Howell building)

Time	A: H001	B: LC065	C: LC067	D: LC068	E: LC267	F: LC268	G: LC215
		BEM Norbert Heuer and Ernst Stephan	Multifield ... Continuum Biomechanics Eduard Rohan and B. Markert	DGM Miloslav Feistauer and Mary Wheeler	Magnetics Thomas Schrefl and M. Slodička	Conservation laws Raimund Bürger and Kenneth Karlsen	
WE 1610		bem Wrobel	multifield Ehlers	dgm Dawson	magnetics Fangohr	conservation Bachmann	
WE 1635		bem Potthast	multifield Markert	dgm Kučera	magnetics Praetorius	conservation Lévi	
WE 1700		bem Maischak		dgm Sobotíková	magnetics Scholz	conservation Mishra	

Chair: **John Whiteman**

WED 1730–1815

BABUŠKA LECTURE

Will Computational Science Fulfill It's Promises? - Reliability of the Computational Engineering

Ivo Babuška

WED 1900– DINNER in the Newton/Mead/Cavendish Rooms in the Hamilton Centre (Refectory)

Thursday 15 June 2006

Time	A: H001	B: LC065	C: LC067	D: LC068	E: LC267	F: LC268	G: LC215
	Multiscale Gabriel Barrenechea and Frédéric Valentin	BEM Norbert Heuer and Ernst Stephan	Contact Zdenek Dostál and Rolf Krause	Anisotropic FEM Gert Lube and Thomas Apel	Sparse W. Hackbusch/ Lars Grasedyck/ Steffen Börm	Time-dependent Mark Ainsworth and Andris Lasis	Higher-Order FEMs Pavel Šolín and Karel Segeth
TH 0835	multiscale Franca	bem Elschner	contact Dostál	anisotropic Cao	sparse Rjasanow	timedep Schötzau	highorder Beuchler
TH 0900	multiscale Mozolevski	bem Steinbach	contact Vondrák	anisotropic Acosta	sparse Dahmen	timedep Hill	highorder Červený
TH 0925	multiscale Loula	bem Sellier	contact Kučera	anisotropic Matthies	sparse Grasedyck	timedep Lakkis	highorder Cools
TH 0950	multiscale Barrenechea	bem Lindner	contact Horák	anisotropic Chen	sparse Baur	timedep Makridakis	highorder Segeth
TH 1015	multiscale Braack	bem Chandler-Wilde	contact Sinwel	anisotropic Creusé		timedep Powell	highorder Šolín

THU 1040–1110: COFFEE in H004 (Howell building)

Chair: **Carsten Carstensen**

THU 1110–1155
Automatic *hp*-Adaptivity for Elliptic and Maxwell Problems
Leszek Demkowicz

THU 1155–1240
Data-sparse boundary and finite element domain decomposition methods
Ulrich Langer

THU 1240–1400: LUNCH in the Newton/Mead/Cavendish Rooms in the Hamilton Centre (Refectory)

Time	A: H001	B: LC065	C: LC067	D: LC068	E: LC267	F: LC268	G: LC215	H: LC115
	Conservation laws Raimund Bürger and Kenneth Karlsen	BEM Norbert Heuer and Ernst Stephan	Contact Zdenek Dostál and Rolf Krause	Anisotropic FEM Gert Lube and Thomas Apel	DGM Miloslav Feistauer and Mary Wheeler/ DGM, solids, fluids Beatrice Riviere and Simon Shaw	Time-dependent Mark Ainsworth and Andris Lasis	Higher-Order FEMs Pavel Šolín and Karel Segeth/ Parallel session	Constrained Optimization Ronald Hoppe and Michael Hintermüller
TH 1400	conservation Risebro	bem Graham	contact Mihai	anisotropic Micheletti	dgm van der Vegt	timedep Jensen	highorder Sváček	constrainedopti Sachs
TH 1425	conservation Bürger	bem Langdon	contact Fernández	anisotropic Grosman	disgalerkin Ephsteyn	timedep Moore	highorder Vejchodský	constrainedopti Schulz
TH 1450	conservation García	bem Wendland	contact Weiser	anisotropic Lube	disgalerkin Ern	timedep Leykekhman	highorder Žitka	constrainedopti Stadler
TH 1515	conservation Jaffré		contact Dobiáš	anisotropic Huang	disgalerkin Riviere	timedep Lasis	Parallel Franz	constrainedopti Lukáš

THU 1540–1610: TEA in H004 (Howell building)

Time	A: H001 Conservation laws Raimund Bürger and Kenneth Karlsen	B: LC065 Suspension bridges Pavel Drábek	C: LC067 Contact Zdenek Dostál and Rolf Krause	D: LC068 Anisotropic FEM Gert Lube and Thomas Apel	E: LC267 DGM, solids, fluids Beatrice Riviere and Simon Shaw/ Parallel session	F: LC268 Time-dependent Mark Ainsworth and Andris Lasis/ Parallel session	G: LC215 Constrained Optimization Ronald Hoppe and Michael Hintermüller	H: LC115 Inverse Problems Roland Potthast
TH 1610	conservation Berres	suspension Drábek	contact Nackendorst	anisotropic Picasso	disgalerkin Wihler	timedep Larson	constrainedopti Chleboun	inversep Stratis
TH 1635	conservation James	suspension Holubová	contact Krause	anisotropic Schneider	disgalerkin Houston	timedep Demlow	constrainedopti Biros	inversep Ben Hassen
TH 1700	conservation Sepúlveda	suspension Nečesal	contact Vlach	anisotropic Alauzet	disgalerkin Shaw	Parallel Grote	constrainedopti Griesse	inversep Hohage
TH 1725		suspension Čepička			disgalerkin Gamba	Parallel Vohralík	constrainedopti Heinkenschloss	inversep Rapún
TH 1750		suspension Malík			Parallel Tomar	Parallel Mustapha	constrainedopti Leugering	

THU 1915–1945: **Pre-Dinner Sherry, Hub/Atrium, Hamilton Centre**

THU 1945: **Conference Dinner, Newton/Mead/Cavendish Rooms, Hamilton Centre**

Friday 16 June 2006

Time	A: H001	B: LC065	C: LC067	D: LC068	E: LC267	F: LC268	G: LC215	H: LC115
	Multiscale Gabriel Barrenechea and Frédéric Valentin	Suspension bridges Pavel Drábek/ Parallel session	Multifield ... Continuum Biomechanics Eduard Rohan and B. Markert	Inverse Problems Roland Potthast	Multiphase Ivar Aavatsmark and Rainer Helmig / Parallel session	Maximum principles Michal Křížek	Sparse W. Hackbusch/ Lars Grasedyck/ Steffen Börm/ Parallel session	Multi Model Alexandre Ern and Simona Perotto
FR 0835	multiscale John	suspension Matas	multifield Reese		multiphase Klausen	maximump Vejchodský		
FR 0900	multiscale Blasco	Parallel Parsaei	multifield Rohan	inversep Schulz	multiphase Boffi	maximump Burda	sparse Börm	multimodel Prudhomme
FR 0925	multiscale Rathish Kumar	Parallel Hubbard	multifield Sainte-Marie	inversep Chandler-Wilde	multiphase Aavatsmark	maximump Šístek	sparse Kress	multimodel Braack
FR 0950	multiscale Valentin	Parallel Nasri	multifield Steeb	inversep Potthast	multiphase Ölmann	maximump Křížek	sparse Schneider	multimodel Perotto
FR 1015	multiscale Codina		multifield Wieners	inversep Delbary	Parallel Förster		Parallel Bañas	multimodel Formaggia

FRI 1040–1110: COFFEE in H004 (Howell building)

Chair: **Leszek Demkowicz**

FRI 1110–1155

Fluid structure interaction for incompressible flows

Quarteroni

FRI 1155–1240

Static Two-Player Evasion-Interrogation Games with Uncertainty

H.T. Banks

FRI 1240–1400: LUNCH in the Newton Room in the Hamilton Centre (Refectory)

Time	A: H001	B: LC065	C: LC067	D: LC068
	Parallel session Hamid Bahai	New hybrid Bernardo Cockburn and Jayadeep Gopalakrishnan	Multifield ... Continuum Biomechanics Eduard Rohan and B. Markert/ Parallel session	
FR 1400	Parallel Frydrych	newhybrid Schötzau	multifield Luke	
FR 1425	Parallel van Loon	newhybrid Sacco	multifield Samuels	
FR 1450	Parallel Vázquez	newhybrid Holst	Parallel Xu	
FR 1515	Parallel Bahtui	newhybrid Gopalakrishnan	Parallel Saurin	
FR 1540	Parallel Hosseini Kordkheili	newhybrid Lazarov	Parallel Kostin	

FRI 1605–1630: TEA in H004 (Howell building)

Times of speakers

FR0925E Aavatsmark	TH0835D Cao	TU1425A Edwards	FR1450B Holst	TU1450D Legendre
TH0900D Acosta	TU1100I Carstensen	WE1610C Ehlers	TH1635B Holubová	TH1750G Leugering
TU1145I Ainsworth	WE0900G Casas	TH0835B Elschner	WE1015G Hoppe	TH1450F Leykekhman
TH1700D Alauzet	FR0925D Chandler-Wilde	TH1425E Ephsteyn	TH0950C Horák	TH0950B Lindner
WE0950G Apel	TH1015B Chandler-Wilde	TH1450E Ern	FR1540A Hosseini Kordkheili	WE1425G Liu
TU1700A Arbogast	TH0950D Chen	FR1015E Förster	TH1635E Houston	FR1425A van Loon
TU1635F Armentano	WE0950C Chinellato	WE1610E Fangohr	WE1450E Hrkac	TH0925A Loula
WE1015A Bängtsson	TH1610G Chleboun	WE1425D Feistauer	TU1400B Hsiao	WE1450F Lovadina
TU1610C Böhmer	TU1700E Christiansen	TH1425C Fernández	TH1515D Huang	TH1450D Lube
TU1635C Böhmer	TU1450A Christie	WE0925C Finger	FR0925B Hubbard	TH1515H Lukáš
TH1425A Bürger	TU1425E Ciarlet, Jr	FR1015H Formaggia	WE1515C Huttunen	FR1400C Luke
FR1015G Bañas	WE1400E Clemens	TH0835A Franca	WE0950E Izsák	WE1700B Maischak
WE1730I Babuška	FR1015A Codina	TH1515G Franz	TH1515A Jaffré	TH0950F Makridakis
WE1610F Bachmann	TH0925G Cools	FR1400A Frydrych	TU1515A Jaffré	TH1750B Malík
FR1515A Bahtui	TU1700B Costabel	TH1725E Gamba	TH1635A James	WE1635C Markert
FR1155I Banks	TH1015D Creusé	TH1450A García	WE1515E Janíková	FR0835B Matas
WE0835D Barlow	TH1725B Čepička	TU1515E Gastaldi	TH1400F Jensen	TH0925D Matthias
TH0950A Barrenechea	TH0900G Červený	TU1700G Georgoulis	FR0835A John	TU1425B Meddahi
WE0900D Barth	TU1425F Dörfler	WE0835F Giani	FR0950F Křížek	WE0900F Melenk
WE1425F Barth	TU1610A Dahle	FR1515B Gopalakrishnan	FR0835E Klausen	TH1400D Micheletti
TH0950E Baur	TH0900E Dahmen	TH1400B Graham	WE0835A Klie	TH1400C Mihai
WE1400G Becker	WE1450A Dalík	WE1155I Graham	WE0900C Koch	TU1635B Mikhailov
TH1635H Ben Hassen	TU1450E Dauge	TH0925E Grasedyck	FR1540C Kostin	WE1700F Mishra
TH1610A Berres	TU1700C Davydov	TH1700G Griesse	TH1635C Krause	TU1515D Monk
TU1610F Bespalov	WE1610D Dawson	TH1425D Grosman	FR0925G Kress	TH1425F Moore
WE0950B Bespalov	FR1015D Delbary	TH1700F Grote	WE1635D Kučera	WE1015D Morel
TH0835G Beuchler	TH1110I Demkowicz	TU1610B Gwinner	TU1635E Kurtz	TH0900A Mozolevski
TH1635G Biros	TU1700D Demkowicz	WE1425E Hamelinck	TH0925C Kučera	TH1750F Mustapha
FR0900A Blasco	TH1635F Demlow	WE1450B Harbrecht	WE1635F Lévi	TH1610C Nackenhorst
FR0900E Boffi	WE0950D Després	WE1015C Hazard	TH0925F Lakkis	WE1450C Nannen
FR0925H Braack	TU1400D Diaz	TH1725G Heinkenschloss	TH1425B Langdon	FR0950B Nasri
TH1015A Braack	TU1450G Discacciati	TU1400G Heinrich	TH1155I Langer	TH1700B Nečas
WE0925D Braeunig	TH1515C Dobiáš	TU1635G Heisserer	WE1400B Langer	TU1515C Norbury
TU1425D Bramble	WE1400D Dolejší	WE1110I Heuer	TH1610F Larson	TU0940I Oden
WE0950A Bruch, Jr.	TU1450B Domínguez	TH0900F Hill	TH1515F Lasis	WE1425B Of
FR0900F Burda	TH0835C Dostál	TU1610E Hiptmair	FR1540B Lazarov	FR0950E Ölmann
FR0900G Börm	TH1610B Drábek	TH1700H Hohage	WE1015E Ledger	WE0925E Pardo

FR0900B Parsaei	WE1515B Rech	TU1515G Scheichl	TU1425G Steinbach	WE1450H Wathen
TU1610G Parvizian	FR0835C Reese	WE1400C Schmidt	TU1515B Stephan	TH1450C Weiser
TU1400E Pasciak	TH1400A Risebro	FR0950G Schneider	TU1400F Stevenson	TU1425C Wei
WE1515H Pasciak	TH1515E Riviere	TH1635D Schneider	TH1610H Stratis	TH1450B Wendland
FR0950H Perotto	TH0835E Rjasanow	WE1700E Scholz	TH1400G Sváček	TU1730I Wheeler
WE1015F Perotto	WE0925A Roberts	FR0900D Schulz	TH1015G Šolín	WE1450D Wheeler
TU1610D Petropoulos	FR0900C Rohan	TH1425H Schulz	WE0900B Tausch	FR1015C Wieners
TH1610D Picasso	TU1635A Russell	WE1400A Scovazzi	WE1515F Tavener	TH1610E Wihler
FR0950D Potthast	FR0925F Šístek	TH0950G Segeth	TH1750E Tomar	WE0925F Wihler
WE1635B Potthast	FR1425B Sacco	TH0925B Sellier	WE0835G Tröltzsch	TU1450C Winter
TH1015F Powell	TH1400H Sachs	TH1700A Sepúlveda	FR1450A Vázquez	WE1610B Wrobel
WE1400H Powell	FR0925C Sainte-Marie	WE1425A Shashkov	FR0950A Valentin	FR1450C Xu
WE1015B Praetorius	WE0900A Sammon	TH1700E Shaw	TU1515F Veaser	TU1400A Yotov
WE1635E Praetorius	FR1425C Samuels	TU1450F Siebert	TH1400E van der Vegt	TH1450G Zítka
TU1635D Prieto	WE1400F Sangalli	WE1425H Silvester	FR0835F Vejchodský	WE0835E Zaglmayr
FR0900H Prudhomme	FR1515C Saurin	TH1015C Sinwel	TH1425G Vejchodský	WE1425C Zschiedrich
FR1110I Quarteroni	WE0925B Sayas	WE0835B Sloan	WE1450G Vexler	
WE0925G Rösch	WE0835C Schöberl	WE1700D Sobotíková	TH1700C Vlach	
WE0900E Rachowicz	FR1400B Schötzau	TH1450H Stadler	TH1725F Vohralík	
TH1725H Rapún	TH0835F Schötzau	FR0950C Steeb	TH0900C Vondrák	
FR0925A Rathish Kumar	WE0950F Schötzau	TH0900B Steinbach	TU1400C Wathen	