

MONDAY 11th July		MONDAY 11th JULY	
LATIMER ROOM		NEILD ROOM	
8.45-9.00	INTRODUCTION		
9.00-9.50	M. BONNET (Ecole Polytechnique, France) Small obstacle expansion in 3-D inverse scattering		
	IDENTIFICATION PROBLEMS		ALGORITHMS
10.00-10.20	J. Bernal-Ponce, A. Fraguera-Collar, J.A. Gomez, J. Oseguera-Pena and F. CASTILLO - ARANGUREN (ITESM-CEM, Mexico) Identification of diffusion coefficients during post-discharge		V. GONTAR and O. Grechko (Ben-Gurion University of the Negev, Israel) Retrieving oscillatory solutions from systems of difference equations
10.20-10.40	I. Braems, N. RAMDANI, A. Boudenne, M. Kiefer, L. Jaulin, L. Ibos, E. Walter and Y. Condou (Universite Paris XII, France) New set-membership techniques for parameter estimation in presence of model uncertainty		T. JOHANSSON (University of Leeds, UK) An iterative method for reconstruction of temperature
10.40-11.00	Y. FAVENNEC, M. Girault, O. Balima and D. Petit (University of Poitiers, France) The model identification method coupled with the adjoint method for reduced model identification		T. KAMEDA and K. Saito (University of Tsukuba, Japan) Newly developed stress increment measurement technique in plastic region based on stress inversion theory
11.00-11.20	COFFEE		
	ALGORITHMS		OPTIMIZATION
11.20-11.40	S.Suram, K.M. BRYDEN and D.A. Ashlock (Iowa State University, USA) An evolutionary algorithm to estimate unknown heat flux in a one-dimensional inverse heat conduction problem		F.L. DE SOUSA, F.M. Ramos, F.J.C.P. Soeiro and A.J. Silva Neto (Instituto Nacional de Pesquisas Espaciais, Brazil) Application of the generalised external optimization algorithm to an inverse radiative transfer problem
11.40-12.00	M.S. MERA, L. Elliott, D.B. Ingham and D. Lesnic (University of Leeds, UK) Comparison of a genetic algorithm and a gradient based optimisation technique		L. BLANK (University of Regensburg, Germany) Analytical considerations of state estimation: Regularization and error propagation
12.00-12.20	A. MANIATY and E. Park (Rensselaer Polytechnic Institute, USA) Finite element approach to inverse problems in dynamic elastography		A.A. SKORDOS, C.Monroy Aceves and M.P.F. Sutcliffe (University of Cambridge, UK) Drape optimization in woven composite manufacturing
12.20-12.40	L.MARIN (University of Nottingham, UK) The method of fundamental solutions for solving inverse boundary value problems in elasticity		I.N. EGOROV, K.S. Fedechkin, Y.N. Shmotin and A.A. Stepanov ("Saturn" Design Bureau, Russia) Application of optimization methods in turbomachinery design
12.45-2.00	LUNCH		

HEAT AND MASS TRANSFER			SOURCE PROBLEMS		
2.00-2.20	M. LAZARD and P. Corvisier (Saint Die, France)	Inverse method for transient temperature estimation during machining		J. Guo, P. LE MASSON, S. Rouquette, T. Loulou and E. Artioukhine (Universite de Bretagne Sud, France)	Estimation of a source term in a 2-dimensional heat transfer problem: Application to electron beam welding, Theoretical and experimental validations
2.20-2.40	S. Abboudi and E. ARTIOUKHINE (Belfort, France)	Simultaneous estimation of two boundary conditions in a two-dimensional heat conduction problem		P.M.P. Silva, H.R.B. ORLANDE, M.J. Colaco, S. Panayiotis and Dulikravich (Federal University of Rio de Janeiro, Brazil)	Estimation of spatially and time dependent source term in a two-region problem
2.40-3.00	A.AZIMI, S. Kazemzadeh Hannani and B. Farhanieh (Sharif University of Technology, Iran)	Application of multiblock method for solution of two-dimensional transient inverse heat conduction problems		A. ELBADIA (University of Technology of Compiegne, France)	An inverse source problem in an elliptic equation from measurements problem
3.00-3.30	REGULARIZATION PROBLEMS			TEA	
	REGULARIZATION PROBLEMS			EXPERIMENTAL	
3.30-3.50	F. BAUER (University of Gottingen, Germany)	Automatic regularization for ill-posed problems with stochastic noise estimate		A. MOULTANOVSKY and M. Rekada (ACC Climate Control, USA)	Investigation of two-phase process of aluminium ingot cooling by means of inverse heat transfer problem approach
3.50-4.10	L. COMINO, L. Marin and R. Gallego (University of Granada, Spain)	Regularized BEM solution for inverse boundary value problems in anisotropic elasticity		N. DAOUAS and M. S. Radhouani (Ecole Nationale d'Ingenieurs de Monastir, Tunisia)	Experimental validation of an extended Kalman smoothing technique for solving non-linear inverse heat conduction problems
4.10-4.30	U. Hamarik and T. RAUS (University of Tartu, Estonia)	On the choice of the regularization parameter in the case of the approximately given noise level of data		X. HAN, G.R. Liu and Z.H. Zhong (Hunan University, P.R. China)	Applications of computational inverse techniques to automotive engineering
4.30-4.50	A.J. SILVA NETO and N. Cella (Universidade do Estado do Rio de Janeiro, Brazil)	A regularized solution for the inverse problem of photoacoustic spectroscopy		M. JANICKI and A. Napieralski (Technical University of Lodz, Poland)	Practical application of inverse problem solution algorithms for water pollution measurements using ion selective transistors
4.50-5.10	R.P.F. Pinhero, A.J. SILVA NETO and N.C. Roberty (Universidade Federal do Rio de Janeiro, Brazil)	On the use of Bregman distances for the solution of inverse radiative transfer problems in one-dimensional participating media		K. MOMOSE, K. Abe and H. Kimoto (Osaka University, Japan)	Inverse measurement of thermal boundary conditions using a transient temperature history
6.00-7.00	RECEPTION (FELLOWS GARDEN)				
7.00-	DINNER				

TUESDAY 12th July			TUESDAY 12th JULY		
LATIMER ROOM			NEILD ROOM		
9.00-9.50	F. NATTERER (Muenster University, Germany)	Helmholtz problems and tomography			
HEAT AND MASS TRANSFER			OPTIMIZATION		
10.00-10.20	DUNG DUC DOAN, P. Le Masson and Y. Yarny (Gif sur Yvette, France)	An inverse approach for the analysis of heat transfer at the liquid-solid interface in arc welding		Z. OSTROWSKI, R.A. Bialeki and A.J. Kassab (Silesian University of Technology, Poland)	Advances in application of proper orthogonal decomposition in inverse problems
10.20-10.40	R.P. Souto, S. STEPHANY, J.C. Becceneri, H.F. Campos Velho and J. Silva Neto (Instituto Nacional de Pesquisas espaciais, Brazil)	On the use of the ant colony system for radiative properties estimation		Y. HAITIAN, C. Guosheng, Z. Changliang, X. Qiwen and Z. Zhifeng (University of Dalian, China)	Solving inverse couple-tree problems via an aggregate function approach
10.40-11.00	J. FRANKEL (University of Tennessee, USA)	Stabilization of ill-posed problems through the data space: Heat conduction theory			
11.00-12.40	COFFEE				
12.45-2.00	POSTERS A SEE LIST AT END OF PROGRAMME				
	LUNCH				

EXPERIMENTAL		ALGORITHMS		
2.00-2.20	A. TESTU, S. Didierjean, D. Maillet, C. Moyne and T. Niass (University of Nancy, France)	Experimentation of thermal dispersion coefficients in granular media through which a gas is flowing: Porous versus porous grain	S. KUBO and M. Shiotsuki (Osaka University, Japan)	Estimation of unknown boundary values from boundary and inside observations
2.20-2.40	M. Karkri, Y. JARNY and P. Mousseau (University of Nantes, France)	Estimation of the initial temperature profile in a channel of an experimental extrusion die	V. MELICHER and M. SLODICKA (Ghent University, Belgium)	The recovery of boundary data for the eddy-current problem on polyhedra: Numerical approach
2.40-3.00	G.H. Kanevce, L.P. KANEVCE, V.B. Mitrevski, G.S. Dulikravich and H.R.B. Orlande (Faculty of Technical Sciences, Macedonia)	Inverse approaches to drying of bodies with significant shrinkage effects	S.S. PEREVERZYEV, R. Pinnau and Siedow (Kaiserslautern, Germany)	Initial temperature reconstruction for a non-linear heat equation: Application to radiative and conductive heat transfer
3.00-3.20	G.G. SENARATNE, R.B. Keam, W.L. Sweatman and G.C. Wake (Massey University, New Zealand)	Inverse methods for detection of internal objects using microwave technology: with potential for breast screening	S. CHAABANE, C. Elhechmi and M. Jaoua (Tunis-Belvedere, Tunisia)	A robust recovery algorithm for the Robin inverse problem
3.20-3.50	TEA			
MATHEMATICAL THEORY		SCATTERING AND OPTICS		
3.50-4.10	DINH NHO HAO, Pham Hinh Hien and H. Sahli (Hanoi Institute of Mathematics, Vietnam)	A Cauchy problem for an elliptic equation in a ship	D. LEDUC, X. Chapeleau, C. Lupi, F. Lopez Geja, M. Douay, R. Le Ny and C. Boisrobert (Nantes, France)	Comparison of two inverse scattering algorithms for the experimental synthesis of fiber Bragg gratings
4.10-4.30	M Jaoua, J. Leblond, M. MAHJOUR and J.R. Partington (Tunis-Belvedere, Tunisia)	Numerical solution of a Cauchy problem in annular domains	V.S.SEROV (University of Oulu, Finland)	Some inverse scattering problems for two-dimensional Schrodinger operator
4.30-4.50	A.L. Bukhgeim and A.A. BUKHGEIM (Schlumberger, Norway)	Inversion of the Radon transform, based on the theory of A-Analytic functions with application to 3D inverse kinematic problem with local data	G. Bellizzi, A. CAPOZZILI and G.D'Elia (University of Naples, Italy)	A new method to evaluate the minimum volume including radiating/scattering systems by means of supporting cones
4.50-5.10	A.S. Blagovestchenskii, Ya. V. Kurylev and V. ZALIPAEV (Loughborough University, UK)	Inverse problem of velocity reconstruction in weakly lateral heterogeneous half-space		
7.00-	DINNER			

WEDNESDAY 13th July			WEDNESDAY 13th JULY		
LATIMER ROOM			NEILD ROOM		
9.00-9.50	R. KRESS (Gottingen University, Germany) method in inverse obstacle scattering	A hybrid			
EXPERIMENTAL AND HEAT TRANSFER			STATISTICS		
10.00-10.20	B. LECAMPION and J. Gunning (CSIRO Petroleum, Australia)	Model selection in hydraulic fracture imaging from elastostatic measurements		S. LASANEN and L. ROININEN (University of Oulu, Finland)	Statistical inversion with Green's priors
10.20-10.40	O.M. Alifanov, S.A. Budnik and V.V. MIKHAYLOV (Moscow) Aviation Insitute, Russia)	An experimental-computational system for the determination of thermal properties of materials Equipment, instrumentation and methodical support of thermal testing		B.A. CATTLE, C. Goddard and R.M. West (University of Leeds, UK)	A high-level model and statistical estimation for passive Gamma ray tomography of nuclear waste vaults
10.40-11.00	A.J. Nowak and I. NOWAK (Silesian University of Technology, Poland)	2D and 3D inverse boundary and inverse geometry BEM solution in continuous casting		A.F. EMERY, E. Valenti and D. Bardot (University of Washington, USA)	Parameter estimation for noisy data and nuisance variables using Bayesian interference
11.00-11.20	C.-H. Huang, Y.-L. Tsai and H.-M. CHEN (National Cheng Kung University, Taiwan)	A 3-D inverse problem is estimating the time-dependent heat transfer coefficients for plate fins		R.G. AYKROYD, B.A. Cattle and R.M. West (University of Leeds, UK)	Boundary element method and markov chain Monte Carlo for object location in electrical impedance tomography
11.20-12.40	COFFEE				
POSTERS B SEE LIST AT END OF PROGRAMME					
12.45-2.00	LUNCH			LUNCH	

SCATTERING AND ACOUSTICS					
2.00-2.20	D. LEDUC, X. Chapeleau, C. Lupi, F. Lopez Geja, M. Douay, R. Le Ny and C. Boisrobert (Nantes, France)	Comparison of two inverse scattering algorithms for the experimental synthesis of fiber Bragg gratings			
2.20-2.40	V.S.SEROV (University of Oulu, Finland)	Some inverse scattering problems for two-dimensional Schrodinger operator			
2.40-3.00	G. Bellizzi, A. CAPOZZILI and G.D'Elia (University of Naples, Italy)	A new method to evaluate the minimum volume including radiating/scattering systems by means of supporting cones			
3.00-3.30	TEA				
MATHEMATICAL THEORY					
3.30-3.50	J.J. JANNO and J. Engelbracht (Tallinn University of Technology, Estonia)	Determining properties of non-linear microstructured materials by means of solitary waves			
3.50-4.10	L.X. YANG, H. Sahli and D.N. Hao (Vrije Universiteit Brussels, Belgium)	A hybrid diffusion model for 2D dense motion estimation			
4.10-4.30	G. GARCIA and V. Burenkov (University of Cardiff, UK)	On estimates for convolutions in anisotropic Nikol'skii-Besov spaces			
4.30-4.50	A. RAMM (Kansas State University, USA)	On inverse problems for the heat equation			
7.00-	DINNER				

THURSDAY 14th JULY					
LATIMER ROOM					
	D.A. MURIO (University of Cincinnati, USA)				
9.00-9.50	Some inverse problems in systems of non-linear parabolic equations				
	HEAT AND MASS TRANSFER				
10.00-10.20	K.A. WOODBURY and A Gupta (The University of Alabama, USA)	Effect of deterministic thermocouple errors (bias) on the solution of the inverse heat conduction problem			
10.20-10.40	O.M. ALIFANOV, S.A. Budnik, V.V. Mikhaylov, A.V. Nenarokomov and V.M. Yudin (Moscow Aviation Institute, Russia)	An experimental-computational system for the determination of thermal properties of materials. III Application for spacecraft structures testing.			
10.40-11.00	J.V. BECK (Michigan University, USA)	Filter solutions for the nonlinear inverse heat conduction problem			
11.20-11.20	COFFEE				
	IDENTIFICATION PROBLEMS				
11.20-11.40	A. FAVARON (Universita di Milano, Italy)	A identification problem arising in the theory of heat conduction for materials with memory			
11.40-12.00	S.L. KUKREJA (NASA, USA)	A least absolute shrinkage and selection operator (LASSO) for non-linear system identification			
12.00-12.20	D. LESNIC (University of Leeds, UK)	An inverse coefficient identification problem in a dynamic plate model			
12.20-12.40	K. SHIROTA (Ibaraki University, Japan)	Numerical method for the identification of Lamé coefficients in linear elastic wave equations			
12.45-2.00	LUNCH				

IDENTIFICATION PROBLEMS					
2.00-2.20	N.C. ROBERTY (Federal University of Rio de Janeiro, Brazil)	Remarks on coefficient determination for the stationary anisotropic transport equation			
2.20-2.40	K. NAKATANI, S. Kubo, T. Sakagmi, D. Shiozawa and M. Takagi (Osaka University, Japan)	An experimental study on identification of delamination in composite material by electric potential CT method			
2.40-3.00	A.V. NENAROKOMOV and O.M. Alifanov (Moscow Aviation Institute, Russia)	Identification of lumped parameter systems			
3.00-3.30	TEA				
INDUSTRIAL					
3.30-3.50	J.J.SERRA and L. Autrique (Font-Romeu, France)	Microscale thermal characterization of reinforced composites by photothermal microscopy data inversion			
3.50-4.10	D. R. Roberti, D. Anfossi, H.F. CAMPOS VELHO and G.A. Degrazia (National Institute for Space Research, Brazil)	Estimation of emission rate from pollutant sources			
4.10-4.30	P. STEINHORST, B. Hofmann, A. Meyer and Weinelt (Chemnitz, Germany)	Gas temperature identification for the simulation of electric fault arc tests			
4.30-4.50	F. VOLLE, M. Lebouche, M. Gradeck and D. Maillet (Nancy, France)	Estimation of cooling fluxes in boiling convection by inverse heat conduction on a rotating cylinder: Feasibility study			
4.50-5.10	N. WAKATSUKI and Y Kagawa (Akita Prefectural University, Japan)	Identification of the properties of a complex layer deposited on the surface of a quartz crystal microbalance (QCM) by the impedance measurement			
7.00-	DINNER				

FRIDAY 15th JULY					
LATIMER ROOM					
IMAGING THEORY AND PRACTICE					
9.00-9.20	C.-H. HUANG and C.-C. Shih (National Cheng Kung University, Taiwan)	A shape identification problem in estimating simultaneously two interfacial configurations in a multiple region domain			
9.20-9.40	S. Wright, M. SCHWEIGER and S. Arridge (University College of London, UK)	Optical tomographic reconstruction using the PN radiative transfer equation			
9.40-10.00	A DOUJRI, M. Schweiger, J. Riley and S.R. Arridge (University College of London, UK)	Diffusion regularization methods of the non-linear inverse problem for diffuse optical tomography			
INDUSTRIAL					
10.00-10.20	C. van BERKEL and W.R.B. Lionheart (Philips Research Laboratories, UK)	Electrostatic object reconstructions in a half space			
10.20-10.40	E. KATAMINE, M. Hirai and H. Azegami (Gifu National College of Technology, Japan)	Solution of shape identification problem on thermoelastic solids with desired distribution of thermal deformation			
10.40-11.00	H. Ammari, M. ASCH and H. Kang (Universite de Picardie Jules Verne, France)	Location of small inclusions from boundary measurements: Application to inclusions nearly touching the boundary			
11.00-11.20	COFFEE				
11.20-11.40	B. KORTSCHAK and B. Brandstatter (Christian Doppler Laboratory for Automotive Measurement Research, Austria)	Comparison of two-functionals for different measurement principles for non-linear capacitance tomography			
11.40-12.00	D. Watzzenig, M. Brandner, G. STEINER and B. Brandstatter (University of Graz, Austria)	State-space representation of closed contours in electrical capacitance tomography			
12.00-12.20	B.S. Kim, J.H. Kim, M.C. Kim, S. Kim and K.Y. KIM (Cheju National University, Korea)	Nonstationary boundary estimation in electrical impedance tomography based on the IMM scheme			
12.20-12.40	A. FRAGUELA, S. Gomez and J. Oliveros (BUAP - Mexico)	A new method for the solution of the inverse problem of electrical capacitance tomography and its application to image reconstruction of multiphase flows			
12.40-1.00	A. CHENG (University of Tennessee, USA)	Direction solution of ill-posed boundary value problems by collocation method			
LUNCH AND END OF CONFERENCE					

POSTER LIST A			POSTER LIST B		
A.V. NENAROKOMOV, O.M. Alifanov, A.A. Ischuk and D.M. Titov (Moscow Aviation Institute, Russia)	An experimental computational system for the determination of properties of materials. II Conception and realization of computer code for experimental data processing		O.M. ALIFANOV, Y. Jarmy, P.V. Prosuntssov and G.A.Ivanov (Moscow Aviation Institute, Russia)		Complex identification of thermophysical properties of anisotropic composite material
T. Loulou, P. LE MASSON and P. Rogeon (Universite de Bretagne Sud, France)	Characterization of thermal contact conductance during resistance spot welding		J.B. Baoga, H. Louahia-Gualous, E. ARTIOUKHINE and P.K. Panday (Belfort, France)		Transient heat transfer for circular jet impacting a horizontal surface: Application for the iterative regularization method
M. JAIS (Cardiff University, UK)	A numerical approach for the seismic inverse problem		C.-H. Huang, Y.-L. Tsai and H.-M. CHEN (National Cheng Kung University, Taiwan)		A 3-D inverse problem is estimating the time-dependent heat transfer coefficients for plate fins

	N.I. Alvarez Acevedo, A.J. SILVA NETO and N.C. Roberty (Universidade do Estado do Rio de Janeiro, Brazil)	A matrix based explicit formulation for inverse radiative transfer problems		T. Loulou and E. ARTIOUKHINE (Belfort, France)	Solution of 3-dimensional non-linear inverse heat conduction by using a reduced number of sensors
	T.R. LUCAS (University of North Carolina at Charlotte, USA)	A new inverse solver for diffusion tomography using multiple sources		F.M. Folly, A.J. SILVA NETO and C.C. Santana (Universidade do Estado do Rio de Janeiro, Brazil)	An inverse mass transfer problem for the characterization of simulated moving bed adsorption columns
	Y.T. Shih and T.R. LUCAS (University of North Carolina, USA)	A new implementation of the elliptic systems method in time dependent diffusion tomography applied to back reflected and transmitted data		S.G. Kazantse and A.A. BUKHGEIM (Schlumberger, Norway)	The Chebyshev ridge polynomials in 2D tensor tomography
	C. Faria, S. STEPHANY and H.S. Sawant (INPE, Brasil)	A new entropy- based strategy for the inverse design of an radio array		G. STEINER, D. Watzenig, B. Kortschak and B. Brandstatter (Graz University, Austria)	A sequential ultrasound and electrical capacitance process tomography system
	P.P.B. DE OLIVEIRA, M. Bertolani and M.A.G. Martinez (Universidade Presbiteriana Mackenzie, Brazil)	Flexible design of an optimal waveguide through evolutionary computation		E. PAIS (Tallinn University of Technology, Estonia)	Identification of degenerate time and space dependent kernels in heat flow
	L.Autrique, N. RAMDANI and S. Rodier (Universite Paris XII, France)	Mobile source estimation with an iterative regularization method		R. Storch, L.C.G. Pimentel and H.R.B. ORLANDE (Federal University of Rio de Janeiro, Brazil)	Identification of micro-meteorological parameters for the characterization of atmospheric boundary layers
	A. FARCAS (University of Cambridge, UK)	The boundary element method for the determination of a time dependent source		M. Asch, J.-P. Hermand, J.-C le Gac and M. Meyer (Universite de Picardie Jules Verne, France)	The solution of inverse problems in underwater geo-acoustics by optimal control methods
	C.V. Goncalves , L.O. Vilarinho and G. GUIMARES (Federal University of Uberlandia, Brazil)	Experimental techniques to estimate temperature field and heat source in a welding process		N.BROOKS, F. Gross and T. Baldwin (Florida A & M University, USA)	Analysis of the field synthesis algorithm, variable field generation, using magnetostatic finite element method and optimization