INVERSE PROBLEMS IN ENGINEERING SEMINAR, 2006
IOWA STATE UNIVERSITY

SCHEDULE

Room 1235 Howe Hall

July 26th

Time	Title	Presenter(s)
8:00-8:30 AM	REGISTRATION/COFFEE/ROLLS	
8:30-9:00 AM	Introductions and Virtual Engineering	K. M. Bryden *Iowa State University*
9:00-9:25 AM	Inverse problem solution and estimation of initial conditions for a drying system in a porous medium.	D. Murio *University of Cincinnati*
9:25-9:50 AM	Automatic Tikhonov regularization with constraints.	R. Jones *Sandia National Laboratories*
9:50-10:15 AM	Solution of inverse radiative transfer problems in two-layer media with artificial neural networks and a hybrid method.	A. J. Silva Neto *IPRJ, Brazil*
10:15-10:45 AM	BREAK	
10:45-11:10 AM	Sensitivity study of instrumented nanoindentation for mechanical characterization of polymers.	K. Cole *University of Nebraska*
11:10-11:35 AM	Distance functions, approximate source conditions and the interplay of smoothness in regularization theory.	B. Hofmann *Chemnitz University of Technology, Germany*
11:35-12:00 Noon	Shape identification of a 3-D weld pool by using Bezier surfaces.	D. Doan, F. Grabiel, Y. Jarny, P. Le Masson *Atomic Energy Agency, France*
12:00 Noon-1:30 PM	LUNCH	
1:30-1:55 PM	Solution of inverse flame deconvolution problems using automatic Tikhonov regularization.	K. Daun *National Research Council of Canada*
1:55-2:20 PM	A computational method in inverse scattering for radial potentials using phase shift data.	P. Sacks *Iowa State University*

2:20-2:45 PM	Memetic algorithms in the solution of inverse heat conduction problems.	S. Suram, K.M. Bryden, D.A. Ashlock *Iowa State University*
2:45-3:10 PM	Direct and inverse modeling of enzymes adsorption kinetics in macro-porous adsorbents.	A. J. Silva Neto *IPRJ, Brazil*
3:10-3:35 PM	Inverse obstacle back-scattering problem with modulus data.	J. Shin *Iowa State University*
3:35-4:10 PM	BREAK	
4:10-5:30 PM	Tour of the Virtual Reality Applications Center at Iowa State University	
6:00 PM	DINNER (At Prof. Bryden's House)	

July 27th

Time	Title	Presenter(s)
8:00 – 8:30 AM	CONTINENTAL BREAKFAST	
8:30- 9:20 AM	Filter solutions for Inverse heat conduction problem with temperature boundary conditions.	J. Beck *Michigan State University*
9:20- 9:45 AM	On the stable estimation of Riemann-Liouville and Caputo fractional derivatives.	D. Murio *University of Cincinnati*
9:45-10:10 AM	Solution of the inverse problem of radiative properties estimation with particle swarm optimization techniques.	A. J. Silva Neto *IPRJ, Brazil*
10:10-10:35 AM	Genetic algorithm solution of the IHCP using parallel computers and commercial CFD software.	K. Woodbury *University of Alabama*
10:35-11:00 AM	BREAK	
11:00AM-11:25 AM	Coevolution and tartarus.	D. A. Ashlock *University of Guelph, Canada*
11:25 – 11:50 AM	Identifying quantitative trait loci using sensitivity analysis.	S. Suram, K.M. Bryden *Iowa State University*
11:50-12:15 PM	Identification in electric fault arc testing	B. Hofmann *Chemnitz University of Technology, Germany*
12:15 – 12:30 PM	Conclusions	
12:30 – 1:30 PM	LUNCH	