

IPCA10

CIRM, Luminy May 31-June 4

The Scientific Program

MONDAY

8:00am-8:45am	Breakfast
8:50am-9:20am	Opening
Chair	L. Reichel
9:20am-9:50am	P. C. Hansen <i>AIR Tools - a MATLAB package of algebraic iterative reconstruction methods</i>
9:50am-10:20am	U. Hämarik <i>On the choice of the regularization parameter in cases of exact, approximate or unknown noise level information</i>
10:20am-11:40am	Break
Chair	R. Chan
10:40am-11:10am	U. Ascher <i>Level set regularization for highly ill-posed distributed parameter estimation problems</i>
11:10am-11:40am	E. Haber <i>Design in inverse problems - a computational approach</i>
11:40am-12:10am	P. Novati <i>A rational Arnoldi approach for ill-conditioned linear systems</i>
12:30am	Lunch
Chair	R. Ramlau
5:15pm-5:45pm	H. Voss <i>Efficient computation of the L-curve in large scale regularized total least squares</i>
5:45pm-6:15pm	J. Lampe <i>Large-scale Tikhonov problems via non-Krylov approach</i>
6:15pm-6:45pm	P. Maaß <i>Regularization with sparsity constraints and impedance tomography</i>
6:45pm-7:15pm	S.V. Pereverzev <i>Discrepancy curves for multi-parameter regularization</i>
7:30pm	Dinner

TUESDAY

8:00am-8:45am	Breakfast
Chair	H. Voss
8:50am-9:20am	R. Plemmons <i>Inverse problems in hyperspectral imaging with nonnegativity constraints</i>
9:20am-9:50am	J. Mead <i>Dense regularization and uncertainty estimates for ill-posed problems</i>
9:50am-10:20am	O. Dorn <i>Structural inversion with level sets</i>
10:20am-10:40am	Break
Chair	F. Sgallari
10:40am-11:10am	R. Ramlau <i>An SVD based wavefront reconstruction for adaptive optics</i>
11:10am-11:40am	M. Sini <i>On uniqueness theorems in inverse obstacle scattering of elastic waves</i>
11:40am-12:10am	B. Harrach <i>Localized potentials for elliptic inverse coefficient problems</i>
12:30am	Lunch
Chair	M. Hanke
5:15pm-5:45pm	J. Nagy <i>Computational approaches for multi-frame blind deconvolution</i>
5:45pm-6:15pm	W. Anzengruber <i>Morozov's discrepancy principle for non-linear inverse problems</i>
6:15pm-6:45pm	M. Hintermüller <i>On a spatially dependent regularization parameter choice rule in total variation based image reconstruction</i>
6:45pm-7:15pm	N. Hyvönen <i>The inverse backscatter problem in impedance tomography: unique identifiability and the backscattering support</i>
7:30pm	Dinner

WEDNESDAY

8:00am-8:45am	Breakfast
Chair	J. Nagy
8:50am-9:20am	R. Chan <i>A Fast optimization transfer algorithm for image inpainting in wavelet domains</i>
9:20am-9:50am	M. Donatelli <i>Antireflective boundary conditions for deblurring problems</i>
9:50am-10:20am	J. Erhel <i>Methods based on an energy formulation for data completion problems</i>
10:20am-10:40am	Break
Chair	P. Maaf
10:40am-11:10am	R. Griesmair <i>A general perturbation formula and the reconstruction of low volume scatterers</i>
11:10am-11:40am	M. E. Hochstenbach <i>Subspace-restricted singular value decompositions for linear discrete ill-posed problems</i>
11:40am-12:10am	W. Ring <i>Modified Mumford-Shah models for tomography problems with limited Data</i>
12:30am	Lunch

THURSDAY

8:00am-8:45am	Breakfast
Chair	P. C. Hansen
8:50am-9:20am	G. Rodriguez <i>Numerical effectiveness of the Reginska criterion in TSVD and iterative methods</i>
9:20am-9:50am	V. Druskin <i>Layer stripping approach to 2D EIT inversion using resistor networks and optimal grids</i>
9:50am-10:20am	H. K. Pikkariainen <i>Inverse problems with Radon measures</i>
10:20am-10:40am	Break
Chair	S. Serra Capizzano
10:40am-11:10am	G. Steidl <i>Dithering by differences of convex functions</i>
11:10am-11:40am	E. Klann <i>Regularization results for a Mumford-Shah-like method with application to tomography data</i>
11:40am-12:10am	A. Marquina <i>High-order edge preserving up-sampling operators for image enhancement</i>
12:30am	Lunch
Chair	R. Plemmons
5:15pm-5:45pm	M. Hanke <i>The inverse backscatter problem in impedance tomography: multiple inclusions</i>
5:45pm-6:15pm	Q. Ye <i>Tikhonov regularization based on generalized Krylov subspace methods</i>
6:20pm-6:45pm	A. Leitão <i>A regularization method based on level-sets for the problem of crack detection from electrical measurements</i>
6:45pm-7:15pm	J. Lu <i>Inverse problems for qualitative dynamics: applications in biomedicine</i>
8:00pm	Conference Dinner

FRIDAY

8:00am-8:45am	Breakfast
Chair	G. Rodriguez
8:50am-9:20am	F. Sgallari <i>A paradigm for updating preconditioners in nonlinear image denoising and deblurring</i>
9:20am-9:50am	M. Zaslavsky <i>On combining model reduction and Gauss-Newton algorithms for solution of inverse problems</i>
9:50am-10:20am	P. Weiss <i>On the design of gradient coils for MRI with minimax current density</i>
10:20am-10:40am	Break
Chair	V. Druskin
10:40am-11:10am	T. Raasch <i>Convergence rates of sparse regularization methods from the viewpoint of nonlinear approximation</i>
11:10am-11:40am	H. Sadok <i>An extrapolated TSVD method for linear discrete ill-posed problems with Kronecker structure</i>
12:30am	Lunch