



2nd International Workshop on New Computational Methods for Inverse Problems

Institut Farman, Ecole Normale Supérieure de Cachan, Cachan, France May 15, 2012

NCMIP 2012 TECHNICAL PROGRAM	
9h	Welcome Coffee
9h30-10h20: Invited talk	Sparse stochastic processes and the discretization of inverse problems. Michael Unser , <i>Ecole polytechnique Fédérale de Lausanne, Switzerland.</i>
10h20-10h40	The Flutter Shutter Formalization. Yohann Tendo ¹ , Bernard Rougé ² and Jean-Michel Morel ¹ ¹ <i>CMLA, Ecole Normale Supérieure de Cachan, France.</i> ² <i>Centre National d'Etudes Spatiales, Toulouse, France.</i>
10h40-11h00	Non-heuristic reduction of the graph in graph-cut optimization. François Malgouyres ¹ and Nicolas Lermé ² ¹ <i>Université Paul Sabatier, Toulouse, France.</i> ² <i>Université Paris 13, France.</i>
11h00-11h20	Coffee break
11h20-12h10: Invited talk	Algorithms and methods for image restoration and curve shortening. Antonin Chambolle , <i>CMAF, Ecole Polytechnique, CNRS, France.</i>
12h10-12h30	Proximal Splitting Derivatives for Risk Estimation. Charles-Alban Deledalle ¹ , Samuel Vaiter ¹ , Gabriel Peyré ¹ , Jalal Fadili ² and Charles Dossal ³ ¹ <i>CEREMADE, CNRS-Université Paris-Dauphine, France.</i> ² <i>GREYC, CNRS-ENSICAEN-Université de Caen, France.</i> ³ <i>IMB, CNRS-Université Bordeaux 1, France.</i>
12h30-13h30	Lunch

13h30-14h00	Posters session (see below)
14h00-14h50: Invited talk	Electromagnetic Inverse Scattering Reconstructions by an Inexact-Newton Method: Numerical and Experimental Results. Matteo Pastorino , <i>University of Genoa, Italy.</i>
14h50-15h10	Time reversal and scattering by a small dielectric inclusion. Souhir Gdoura and Dominique Lesselier , <i>LSS, Supélec, France.</i>
15h10-15h30	A Level-Set Approach for Radar Imaging From Ramp Response in Arbitrary Directions. Yanhua Wen¹, Nicole de Beaucoudrey¹, Joseph Saillard¹, Janic Chauveau² and Philippe Pouliguen³ ¹ <i>IETR UMR 6164 CNRS, Université de Nantes, Lunam Université Nantes, France.</i> ² <i>Maîtrise de l'Information DGA (Direction Générale de l'Armement) Bruz, France.</i> ³ <i>DS/MRISDGA (Direction Générale de l'Armement) Bagneux, France.</i>
15h30-16h00	Coffee break and Posters
16h00-16h20	Absorption and phase retrieval in phase contrast imaging with non linear Tikhonov regularization. Bruno Sixou, Valentina Davidoiu, Max Langer and Françoise Peyrin , <i>Creatis/INSA Lyon, France.</i>
16h20-16h40	Preconditioned Truncated Newton method for Full Waveform Inversion. Ludovic Metivier¹, Romain Brossier¹, Jean Virieux¹ and Stéphane Operto² ¹ <i>STerre, Université de Grenoble, France.</i> ² <i>Geoazur, Villefranche sur mer, France.</i>
16h40-17h00	Tomographic reconstruction of binary fields. Stéphane Roux, Hugo Leclerc and François Hild , <i>LMT, ENS-Cachan, France.</i>

Posters session	
Poster 1	Data Completion Problems Solved as Nash Games. Abderrahmane Habbal and Moez Kallel. <i>UNS and INRIA, Sophia Antipolis, France.</i> <i>LAMSIN-ENIT and IPEIT, Tunisia.</i>
Poster 2	Constrained optimization methods for blind deconvolution. Anastasia Cornelio¹, Elena Loli Piccolomini² and James G. Nagy³ <i>¹University of Modena and Reggio Emilia, Italy.</i> <i>²University of Bologna, Italy.</i> <i>³Emory University, United State of America.</i>
Poster 3	Variational Bayesian Approximation methods for inverse problems. Ali Mohammad-Djafari, LSS, Supélec, Fance.
Poster 4	Rao-Blackwellised Interacting Markov Chain Monte Carlo for Electromagnetic Scattering Inversion. Francois Giraud¹, Pierre Minvielle¹, Marc Sancandi¹ and Pierre Del Moral² <i>¹CEA-CESTA, France.</i> <i>²INRIA Bordeaux, France.</i>
Poster 5	A reduced physical optics model for electromagnetic scattering problem. Mojtaba Amirisazi, Franck Daout and Francoise Schmitt, SATIE, ENS Cachan, France.