

NCMIP
2015!

NCMIP 2015

5th International Workshop
on New Computational Methods for Inverse Problems

Institut Farman

Ecole Normale Supérieure de Cachan, FRANCE



May 29, 2015

9:00	Welcome Coffee
9:30 - 10:20	<i>Mathematics for Imaging. Invited Talk</i> Habib Ammari CMAP (ENS ULM)- Ecole Polytechnique, Paris, France.
10:20 - 10:40	<i>Reconstruction of 3-D Microwave Images based on a Block-BiCGStab Algorithm.</i> Corentin Friedrich^{1&2}, Sébastien Bourguignon¹, Jérôme Idier¹ and Yves Goussard¹ ¹ LUNAM Université, Ecole Centrale de Nantes/IRCCyN/CNRS, France, ² Ecole Polytechnique de Montréal, Dept. of Electrical Engineering, Canada
10:40 - 11:00	<i>Nonlinear electromagnetic inverse scattering in L_p via Frozen or Broyden update of the Fréchet derivative.</i> Emanuele Tavanti¹, Claudio Estatico², Alessandro Fedeli¹, Matteo Pastorino¹ and Andrea Randazzo¹ ¹ Department of Electrical, Electronic, Telecommunications Engineering, and Naval Architecture, University of Genoa, Italy, ² Department of Mathematics, University of Genoa, Italy
11:00 - 11:30	Coffee Break
11:30 - 11h50	<i>Surface crack reconstruction from eddy current images using a direct semi-analytic model .</i> Eric Vourc'h¹, Thierry Bore¹, Caifang Cai² and Romain Soulat³ ¹ SATIE/ENS-Cachan/ Université Paris-Saclay, France, ² LSS-SUPELEC/Paris-Saclay University, France, ³ LSV/ENS-Cachan/Université Paris-Saclay, France
11:50 - 12:10	<i>An a posteriori error estimator for shape optimization: application to EIT.</i> Matteo Giacomini^{1&2}, Olivier Pantz¹ and Karim Trabelsi² ¹ CMAP Ecole Polytechnique, Palaiseau, France, ² DRI Institut Polytechnique des Sciences Avancées, Ivry-sur-Seine, France
12:10 - 12:30	<i>Far field imaging of a dielectric inclusion.</i> Abdul Wahab¹ and Naveed Ahmed² ¹ Department of Mathematics, COMSATS Institute of Information Technology, Wah Cantt, Pakistan, ² Weierstrass Institute for Applied Analysis and Stochastics, Leibniz Institute in Forschungsverbund Berlin, Germany
12:30 - 13: 30	Lunch
12:30 - 14: 30	Poster session
14:30 - 15:20	<i>Edge detection for solving hybrid inverse problems. Invited Talk</i> Otmar Sherzer Johann Radon Institute for Computational and Applied Mathematics (RICAM), University of Vienna, Austria
15:20 – 15:40	<i>Two-time-scale inverse problems: formulation and solution.</i> Guillaume Puel and Denis Aubry Laboratoire MSSMat/CentraleSupélec CNRS/Université Paris-Saclay, France
15:40 - 16:00	<i>Asymptotic of Sparse Support Recovery for Positive Measures.</i> Quentin Denoyelle¹, Vincent Duval² and Gabriel Peyre¹ CEREMADE - CNRS and Université Paris-Dauphine, France, ² INRIA, France
16:00 - 16:20	Coffee Break
16:20 - 17:10	<i>In-situ tomographic imaging of glass melting. Invited Talk</i> Emmanuelle Guillard UMR CNRS Saint-Gobain Surface du Verre et Interfaces, France
17:10 - 17:30	<i>Stochastic level set evolution for nonlinear phase contrast tomography.</i> Bruno Sixou CREATIS, INSA-Lyon; Inserm, U1044; CNRS UMR 5220, Université Lyon 1, France
17:30 - 17:50	<i>Higher-order expansion of misfit functional for wave-based defect identification in elastic solids.</i> Rémi Cornaggia, Marc Bonnet POems (UMR 7231 CNRS-INRIA-ENSTA), ENSTA, Palaiseau, France

The workshop is endorsed by
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