

FIRST ANNUAL WORKSHOP of Functional Analysis and Applications Group

May 15, 2010, Room Sousa Pinto, 08:15 AM

TALKS:

Luís Castro	Analytical description of the conductivity of composite materials with non-ideal contact conditions
Anabela Silva	Wiener-Hopf plus Hankel operators with almost periodic symbols on weighted Lebesgue spaces
Alberto Simões	Diffraction problems of Sommerfeld type with higher order boundary conditions
Ana Paula Nolasco	Boundary integral methods for wedge diffraction problems
Saburou Saitoh	Heat conduction from a finite number of initial heat data
Anabela Ramos	On the stability of a class of nonlinear Volterra integral equations
António Caetano	Non-classical function spaces
Alexandre Almeida	Recent developments in variable exponent function spaces
Sofia Lopes	The fractal Dirichlet Laplacian
Vítor Neves	Strong uniform differentiability in Silva spaces
Vasile Staicu	Differential and variational problems involving multivalued terms
Manuela Rodrigues	Lyapunov-type inequalities for boundary value problems with weight functions
Jianqing Chen	Three applications of the Variational Method
Kelly Murillo	Two solutions of a class of elliptic problems with singular term
Eugénio Rocha	PDEs on Carnot groups

ORGANIZATION: *Luís Castro and Alexandre Almeida*

CIDMA – CENTRO DE I&D EM MATEMÁTICA E APLICAÇÕES
Departamento de Matemática, Universidade de Aveiro

2nd ANNUAL WORKSHOP of Functional Analysis and Applications Group

October 29, 2011, Room Sousa Pinto, 08:00 AM

Speakers	Talks
Luís Castro	<i>Numerical Methods for Singular Integral Equations by means of Tikhonov Regularization and Reproducing Kernels</i>
Saburoou Saitoh	<i>Applications of Reproducing Kernels to Fractional Functions and Convolution Inequalities</i>
Alberto Simões	<i>Source Inversion in the Helmholtz's Equation from a Finite Number of Observation Data</i>
Ana Paula Nolasco	<i>The Doubling Method: a Tool to Solve some Wedge Diffraction Problems</i>
Anabela Silva	<i>Kernel and Cokernel Properties of Matrix Wiener-Hopf plus Hankel Operators</i>
Matteo Dalla Riva	<i>Behavior of the Solution of a Dirichlet Problem in a Domain with a Small Hole Proportional to a Real Parameter ϵ</i>
António Caetano	<i>On the type of Convergence in Atomic Representations</i>
Sofia Lopes	<i>Wavelet Frames for Besov Spaces on Domains</i>
Alexandre Almeida	<i>Interpolation in Variable Exponent Function Spaces</i>
Vítor Neves	<i>Non Standard Mathematics in Rabinowitz' Mountain Pass Theorem</i>
Vasile Staicu	<i>Nonlinear Periodic Problems with Concave Terms</i>
Sandrina Santos	<i>Eigenvalue Problems for Semilinear Hemivariational Inequalities</i>
Manuela Rodrigues	<i>Operational Calculus for Bessel's Fractional Equation</i>
Jianqing Chen	<i>Multiple Solutions of Elliptic Equations with Constraints</i>
Kelly Murillo	<i>Elliptic Problems with Singularities</i>
Lirong Yuang	<i>Elliptic Equations with Critical Exponent</i>
Eugénio Rocha	<i>About Mathematics in Computational Chemistry</i>

Organizers: *Luís Castro and Alexandre Almeida*



3rd ANNUAL WORKSHOP of Functional Analysis and Applications Group

October 27 (2012) - Room Sousa Pinto

	Speakers	Talks
08:30	Luís Castro	Explicit solutions of Cauchy singular integral equations with weighted Carleman shifts
08:55	Anabela Silva	Wiener-Hopf-Hankel operators with piecewise continuous Fourier symbols on variable Lebesgue spaces
09:20	Alexandre Almeida	Riesz and Wolff potentials on weak Lebesgue spaces with variable exponent
09:45	António Caetano	Regular distributions within the Besov and Triebel-Lizorkin scales of spaces
10:10	Sofia Lopes	Atomic decompositions in general Besov spaces
10:35	Coffee Break	
11:00	Saburou Saitoh	Aveiro discretization method in mathematics
11:25	Manuela Rodrigues	Heat kernel related to the index Whittaker transform
11:50	Matteo Dalla Riva	Harmonic functions in a planar domain with a small hole
12:15	Vasile Staicu	Boundary value problems with singular and superlinear terms
12:40	Sandrina Santos	Constant sign and nodal solutions for a class of nonlinear Dirichlet problems
13:05	Lunch	
14:30	Alberto Simões	Fredholm property of convolution type operators associated with a wave diffraction problem
14:55	Eugénio Rocha	Existence results for elliptic equations with supercritical terms
15:20	Jianqing Chen	Properties of solutions to a coupled Schrödinger system
15:45	Lirong Huang	Two positive solutions of a class of Schrödinger-Poisson system
16:10	Kelly Murillo	Positive and sign-changing solutions of an elliptic problem with double singularity
16:35	Abel carvalho	Some old open problems from ecology



4th ANNUAL WORKSHOP

of Functional Analysis and Applications Group

June 8, 2013 - Room Sousa Pinto

	Speakers	Talks
08:30	Luís Castro	Interplay between Wiener-Hopf and Hankel operators on standard and variable exponent Lebesgue spaces
08:50	Eugénio Rocha	Elliptic equations on nilpotent Lie groups
09:10	Jianqing Chen	Some results on N coupled Schrödinger systems
09:30	Lirong Huang	On the Schrödinger-Poisson system with a general indefinite nonlinearity
09:50	Matteo Dalla Riva	Harmonic functions in a domain with a small hole
10:10	Saburou Saitoh	Representations of the solutions of some general Tikhonov functional equations
10:30	Coffee Break	
11:00	António Caetano	New proofs of old results (in the Theory of Function Spaces)
11:20	Alexandre Almeida	Variable exponent Herz spaces
11:40	Rita Guerra	Different ways to obtain Hyers-Ulam-Rassias stability of Volterra integral equations
12:00	Sandrina Santos	On (p, q) equations with concave terms
12:20	Manuela Rodrigues	The index Whittaker transform for distributions
12:40	Alberto Simões	Fredholm analysis for an impedance boundary-value problem



5th ANNUAL WORKSHOP of Functional Analysis and Applications Group

-devoted to the 70th birthday of Professor Saburo Saitoh-

May 24, 2014 - Room Sousa Pinto

	Speakers	Talks
09:00	Luís Castro	Professor S. Saitoh and his reproducing kernel Hilbert spaces: an overview on some of the latest results
09:20	Manuela Rodrigues	A Bessel differential heat initial value problem in a reproduction kernel Hilbert space framework
09:40	Rita Guerra	Hyers-Ulam-Rassias stability of Volterra integral equations with one or several delays
10:00	Jianqing Chen	An overview on Schrödinger-Poisson systems
10:20	Eugénio Rocha	About nonlocal elliptic PDEs and other things
10:40	Coffee Break	
11:20	Nguyen Minh Tuan	On finite Hartley convolutions and approach to convolutions and integral equations
11:40	Alberto Simões	A general problem of wave diffraction by a strip with higher order boundary conditions
12:00	M.R. Sidi Ammi	Existence and uniqueness of a positive solution to generalized nonlocal thermistor problem with fractional order derivatives
12:20	Ekaterina Pesetskaya	Exact solution to a specific nonlinear heat conduction problem in doubly periodic 2D composite materials
	LUNCH	
14:40	Cristina Câmara	On some properties of the kernels of Toeplitz operators
15:00	Rui Marreiros	On the dimension of the kernel of a singular integral operator with non-Carleman shift and conjugation
15:20	Ana Conceição	Exploring the spectra and the kernels of some classes of singular integral operators
15:40	Sérgio Mendes	Base change and K-theory for the Iwahori-Hecke algebra of $GL(n)$
16:00	Coffee Break	
16:30	Sofia Lopes	Pointwise multipliers in general Besov spaces
16:50	António Caetano	Compactness in quasi-Banach function spaces



5th ANNUAL WORKSHOP
of Functional Analysis and Applications Group
-devoted to the 70th birthday of Professor Saburo Saitoh-

May 24, 2014

Group Photo of the Participants



6th ANNUAL WORKSHOP

of Functional Analysis and Applications Group

May 16, 2015 — Room *Sousa Pinto*

	Speakers	Talks
09:00	Luís Castro	Norm inequalities and reproducing kernels for Toeplitz plus Hankel operators
09:20	Rita Guerra	Convolutions and integral equations associated with the Fourier transform and a reflection
09:40	Anabela Silva	On the kernels of Wiener-Hopf-Hankel operators on variable exponent Lebesgue spaces
10:00	Manuela Rodrigues	Some properties of the Laguerre transform
10:20		COFFEE BREAK
11:00	António Caetano	On Besov spaces on fractal h -sets
11:20	Alexandre Almeida	Variable exponent spaces of homogeneous type
11:40	Kelly Murillo	Analysis of the Portuguese food firms in the period 2006-2012
		LUNCH



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This workshop is supported by Portuguese funds through the CIDMA - Center for Research and Development in Mathematics and Applications, and the Portuguese Foundation for Science and Technology (FCT – *Fundação para a Ciência e a Tecnologia*), within project UID/MAT/04106/2013.

7th ANNUAL WORKSHOP

of Functional Analysis and Applications Group

July 18, 2016 - Room *Sousa Pinto*

Speakers

Talks

09:00	Luís Castro	Mathematical analysis of a composite material with soft and stiff imperfect interface conditions
09:20	Rita Guerra	New convolutions associated with an oscillatory integral transform
09:40	Manuela Rodrigues	An operational method for solving a class of fractional differential equations
10:00	Alexandre Almeida	Approximation in Morrey spaces
10:20		COFFEE BREAK
11:00	António Caetano	Atomic and molecular decompositions in variable exponent function spaces
11:20	Anabela Silva	On different asymmetric factorizations for WHH operators on variable exponent Lebesgue spaces
11:40	Eugénio Rocha	Quasilinear elliptic systems with measure data
12:00	Kelly Murillo	On energy efficiency of eight European countries in the manufacturing area
12:20	Vasile Staicu	Extremal solutions to differential inclusions: a probability alternative to Baire category method



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8th ANNUAL WORKSHOP

Functional Analysis & Applications Group

April 10, Room Sousa Pinto, DMat - UA

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| 09:00 | Luís Castro | New convolutions for the fractional Fourier transform |
| 09:20 | Rita Guerra | Tauberian properties for an oscillatory integral operator |
| 09:40 | Manuela Rodrigues | Some properties of a generalised class of Jacobi polynomials |
| 10:00 | Alexandre Almeida | Embeddings of generalized Morrey spaces |
| 10:20 | | COFFEE BREAK |
| 11:00 | António Caetano | A technical problem related to Triebel-Lizorkin-Morrey spaces with variable exponents |
| 11:20 | Anabela Silva | Singular integral operators with a fractional linear shift on variable Lebesgue spaces |
| 11:40 | Kelly Murillo | Some applications of multidirectional efficiency analysis |
| 12:00 | Sandrina Santos | Two solutions for the fractional Laplacian with a nonsmooth potential under nonresonance |
| 12:20 | Vasile Staicu | Sensitivity analysis of parametric elliptic optimal control problems |

This Workshop was supported in part by the Portuguese Foundation for Science and Technology (FCT-Fundação para a Ciência e a Tecnologia), through CIDMA - Center for Research and Development in Mathematics and Applications, within project UID/MAT/04106/2013.

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