

		Salón de conferencias	AULA 3	AULA 1		
		Monday morning 10/09/18				
8:30-09:20		Documentation delivery			8:30-09:20	
9:20 - 11:00	Chairman	PC 1& 2: Plenary Conference C. Amrouche			9:20 - 11:00	Chairman
9:20 - 10:10		M. Maris			9:20 - 10:10	
10:10 - 11:00		On some minimization problems in R^N R. Ignat			10:10 - 11:00	
11:00-11:30		Coffee break			11:00-11:30	
11:30 - 13:10	Chairman	S1: MS8(1) Partial Differential Equations in Economy and Engineering P. Takac	S2: MS4 Porous media P. Poncet	S3: MS1(1) Periodic orbits V. Lanchares	11:30 - 13:10	Chairman
11:30 - 11:55		J.M. Rakotoson Best regularity for a Schrodinger type equation with non smooth data and interpolation spaces	E. Ahusborde A finite volume method for fully coupled multiphase low and chemical processes in porous media-application to CO ₂ storage	A. Riaguas Numerical continuation of one-parameter families of periodic orbits	11:30 - 11:55	
11:55 - 12:20		C. Tintarev On defect of compactness for Sobolev embeddings	J. M. Etancelin Reactive flows at pore scale with hybrid computing	A. Dana CoPO, the Corrector of Periodic Orbits algorithm with high precision	11:55 - 12:20	
12:20 - 12:45		J. Hernández Flat and Compact Support Solutions to some Semilinear Elliptic Problems with Non-Lipschitz Nonlinearity	L. Hume Vortex-based penalized method for permeability estimation of real samples	A. Abad Optimization methods for computing periodic orbits	12:20 - 12:45	
12:45 - 13:10		P. Drábek Travelling waves in the Fisher-KPP equation with nonlinear diffusion and a non-Lipschitzian reaction term	P. Poncet Reactive flows at the pore-scale of porous materials	A. Elipe Symmetric periodic orbits in a four-body problem	12:45 - 13:10	
13:10 - 13:35				A. Cantero Periodic orbits in the generalized two-body problem	13:10 - 13:35	
13:30 - 15:00		Lunch			13:30 - 15:00	
15:15 - 16:55	Chairman	S5: MS10 Navier Stokes Equations with Navier Boundary Condition C. Amrouche	S4 : MS9 Ferromagnetism G. Carbou	S6 : MS1(2) Periodic orbits +Applied Maths (1) A. Abad	15:15 - 16:55	Chairman
15:15 - 15:40		A. Ghosh Semigroup theory for the Stokes operator with Navier boundary condition on L^p spaces	G. Carbou Walker Regime for Walls in Ferromagnetic Nanotubes	V. Lanchares Periodic Solutions in the Hénon-Heiles Rotating System	15:15 - 15:40	
15:40 - 16:05		H. Al Baba Fractional Powers of the Stokes operator with boundary conditions involving the pressure	A. Al Sayed Walls in a junction of three ferromagnetic nanowires	J. M. Uzal Periodic solutions for impulsive differential equations	15:40 - 16:05	
16:05 - 16:30		Ch. Amrouche Elliptic Problems in Smooth and Non Smooth Domains	R. Rachi Stability of domain walls in ferromagnetic rings	S. Kolb Bifurcations in flight dynamics and aeroelasticity: Nonlinear analysis and numerical simulations	16:05 - 16:30	
16:30 - 16:55		P. Kumar A multigrid multilevel Monte Carlo method for transport in the Darcy-Stokes system		L. Floria Canonical Constants in a Problem of Radzievskij	16:30 - 16:55	
17:00-17:30		Coffee break			17:00 - 17:30	
17:30-18:20	Chairman	PC 3: Plenary conference M. Stynes			17:30-18:20	
17:30-18:20		E. O'Riordan Numerical analysis and thin layers			17:30-18:20	
19:00-19:45		Official opening ceremony in the presence of the presidents: Rector de la Universidad de Zaragoza and Monsieur le Président de l'Université de Pau			19:00-19:45	
20:00		Reception			20:00	
		Tuesday morning 11/09/18				
9:00 - 10:40	Chairman	PC 4 & 5: Plenary Conference J.L. Torrea			9:00 - 10:40	Chairman
9:00 - 9:50		M. Stynes A higher-order method on a graded mesh for a time-fractional diffusion problem			9:00 - 9:50	
9:50 - 10:40		R. Herbin Staggered schemes for compressible flows			9:50 - 10:40	
10:40-11:10		Coffee break			10:40-11:10	
11:10 - 13:15	Chairman	S7: MS5 Finite Volume for elliptic problems Ch. Pierre	S8: MS3 PDE convection-diffusion C. Clavero	S9: MS6 Stochastic PDE G. Vallet	11:10 - 13:15	Chairman
11:10 - 11:35		R. Turpault A domain decomposition strategy for a very high-order finite volumes scheme applied to cardiac electrophysiology	M. González Stabilized mixed methods for convection-diffusion problems	A. Zimmermann Well-posedness for a class of nonlinear SPDEs with strongly continuous perturbation	11:10 - 11:35	
11:35 - 12:00		C. Chainais A free energy diminishing DDFV scheme for convection-diffusion equations	J.C. Jorge An efficient uniformly convergent method for solving singularly perturbed semilinear reaction-diffusion systems	N. El Saadi On the existence of solutions for a nonlinear stochastic partial differential equation arising as a model of phytoplankton aggregation	11:35 - 12:00	
12:00 - 12:25		P. Omnes Rate of numerical diffusion of finite volume schemes	J. Novo Error analysis of non inf-sup stable discretizations of the time-dependent Navier-Stokes equations with local projection stabilization	G. Vallet On a nonlocal Stochastic PDE	12:00 - 12:25	
12:25 - 12:50		F. Dubois Raviart-Thomas finite elements of Petrov-Galerkin type	D. Irisarri Stabilized virtual element method for the incompressible Navier-Stokes equations	Y. Tahaoui A parabolic problem with constraint in population dynamics	12:25 - 12:50	
12:50 - 13:15			E. Pérez		12:50 - 13:15	

			Two-point Taylor expansions in singular one-dimensional boundary value problems: Application to the spheroidal wave equation			
13:30-15:00		Lunch			13:30-15:00	
15:00 -	17:05	S10: MS8(2) Partial Differential Equations in Economy and Engineering	S11: MS2 Fractional Differential Equations + Applied Maths (2)	S12: MS7(1) Probability-Statistics	15:00 -	17:05
Chairman		B. Alziary	P. Miana	C. Sangüesa, S. Mercier	Chairman	
15:00 -	15:25	I. Schindler	B. Rubio	C. Sangüesa	15:00 -	15:25
		On compactness properties and ground states of an affine Laplacian	Shape preserving properties of general class of bases and accurate computation	Stochastic comparisons and multivariate dependence for the epoch times of trend renewal processes		
15:25 -	15:50	J.P. Gossez	E. Cuesta	G. Badia	15:25 -	15:50
		Elliptic problems involving a gradient term with natural growth	Abstract fractional differential equations with order varying in time in complex Banach spaces and its time discretization: Well-posedness, regularity, and asymptotic behavior	Optimal Replacement Policy under a General Failure and Repair Model: Minimal versus Worse Than Old Repair		
15:50 -	16:15	P. Takac	J.L. Torrea	G. Salles	15:50 -	16:15
		Origin of the p-Laplacian and A. Missbach	Hölder, Sobolev, weak-type estimates in mixed-norm with weights for parabolic equations	Parametric inference for two imperfect repair models for gamma deteriorating systems		
16:15 -	16:40	N. Habibi	J. Cresson	F. Avram	16:15 -	16:40
		Multigrid Waveform Relaxation Based On Finite Element Discretisation	Modeling with fractional derivatives - spread of the dengue fever epidemic	Towards extending the W, Z paradigm for first passage problems of Lévy processes to strong Markov processes with one sided jumps		
16:40 -	17:05	A. Pe			16:40 -	17:05
		Geometric Multilevel Methods for Isogeometric Analysis				
17:00-17:30		Coffee break			17:00-17:30	
			Poster session			
			Poster session			
17:30 -	19:10	PC 6 & 7: Plenary Conference	M. Palacios	S12: MS7(2) Prob-Stat.	17:30 -	19:10
Chairman		M. A. Navascués	M.S. Akhtar, M.A. Navascués	C. Sangüesa, S. Mercier	Chairman	
			J. Jódar, P. Jodrá			
17:30 -	18:20	P. Massopust	M. Márquez, I. Melzi	C. Sández	17:30 -	18:20
		Generalized B-Splines: Structure and Properties	A. Nafidi, M. Pasadas	An evolutionary algorithm for the Multi-Period Facility Location Problem		
18:20 -	19:10	M. Buhmann	P. Pagola, N. A. Pundeer	G. Moutabir	18:20 -	19:10
		Quasi-Interpolation and Applications to PDEs with Radial Basis Functions	M. Rodríguez	A Stochastic Square of the Rayleigh Diffusion Process		
21:00		Conference Dinner			21:00	
Wednesday 12/09/18						
9:00 -	11:05	S13: Applied Maths. (3)	S14: Applied Maths (4)	S15: Algebra-Geometry	9:00 -	11:05
Chairman		J. L. Gracia	A. Zimmermann	E. Artal	Chairman	
9:00 -	9:25			O. Oyebola	9:00 -	9:25
				Non-associative Algebraic Hyperstructures and its Applications to Biological Inheritance		
9:30 -	9:55	G. Gordillo	N. Bordj	R. Villacampa	9:30 -	9:55
		Development of a control tool for releases of pollutants in rivers	A phytoplankton aggregation study by the spatial moments approximation of Individual-based Model	Laplacian (co)flow of a locally conformal parallel G2-structure		
10:00 -	10:25	J. Fernández Pato	Ch. Ferreira	E. Artal	10:00 -	10:25
		On the application of novel 2D techniques to model streamflow generation in response to rainfall	Asymptotic behaviour of the Swallowtail catastrophe	Triangular curves		
10:30 -	10:55	S. Martinez	P. Palacios	S. Bannai	10:30 -	10:55
		Equilibrium and non-equilibrium models applied to unsteady sediment transport	Uniformly convergent expansions of the Struve functions in terms of elementary functions	Matroids, two-graphs and the embedded topology of quartics and bitangent lines		
11:00 -	11:30	Coffee break			11:00 -	11:30
11:30-13:10		PC 8 & 9: Plenary Conference			11:30-13:10	
Chairman		E. Ahusborde			Chairman	
11:30 -	12:20	T. Gallouet		V. Florens	11:30 -	11:45
		Convergence and error estimates for the compressible Navier-Stokes equations		Slopes of colored links		
12:20 -	13:10	T. Sauer		T. Shirane	11:45 -	12:10
		Mathematical challenges in computer tomography		Galois covers of graphs and embedded topology of plane curves		
				H. Tokunaga	12:10 -	12:35
				Topology of plane curves and "arithmetic" of double covers of P^2		
13:30-15:00		Lunch			13:30-15:00	