Wednesday 8th

10:00-13:00	**REGISTRATION (Venue: IMM)**
	MATHEMATICAL MODELLING IN TRANSPORTATION & ENGINEERING Venue: **IMM** *Chairwoman:* **Julia Real**
15:40 - 16:00	**Ernesto Colomer,** Predictive maintenance system for a dam based on real-time monitoring and diagnosis
16:00 - 16:20	**Miriam Labrado,** Comparison in the use of ANSYS and SAP2000 in the modelling and structural calculation of bridges
16:20 - 16:40	**Ana Sancho,** Deep Learning AI-based solution for vineyard real-time health monitoring
16:40 - 17:00	**Laura Andrés,** New solution for automatic and real time detection of railroad switch failures and diagnosis
17:10 - 17:30	**BREAK**
	MATHEMATICAL MODELLING IN TRANSPORTATION & ENGINEERING and APPLICATIONS Venue: **IMM** *Chairwoman:* **Teresa Real**
17:30 - 17:50	**Álvaro Potti Guindal,** New autonomous system for slope stability control in linear infrastructure
17:50- 18:10	**Rubén Sancho,** New system for the automatic counting of vehicles in Roundabouts and intersections
18:10- 18:30	**Adrián Zornoza,** A disruptive technology that enables low cost real-time monitoring of road pavement condition by any ordinary vehicle circulating on the road, and automatically designs plans for predictive maintenance
18:30- 18:50	**Julia Real,** Application of a twin model for monitoring and predictive diagnosis of Pirihueico Bridge

Thursday 9th

	RANDOM DIFFERENTIAL EQUATIONS, NUMERICAL ANALYSIS AND BIOLOGICAL MODELLING Venue: **IMM** *Chairman: Juan Carlos Cortés*
9:10-9:30	**Elena López Navarro,** Analysing nonlinear oscillators subject to Gaussian inputs via the random perturbation technique
9:30-9:50	**Ana Navarro Quiles,** Statistical solution of a second-order chemical reaction
9:50-10:10	**Óscar Angulo,** Numerical analysis of a model of a consumer with delayed resource
10:10 - 10:30	**Miguel Ángel López Marcos,** The effect of the delay in the recruitment process for an age-structured population model
10:30 - 10:50	**José Carlos Rodríguez Alcantud**, A decide-then-merge strategy for N-soft set based multi-agent decisions
10:50 - 11:10	**Pablo Martínez Rodríguez,** Probabilistic calibration of a model of herpes simplex type 2 with a prefixed error in the uncertainty of the data
11:10 - 11:20	OPENING (Venue: **IMM**)
11:20 - 11:40	**BREAK**
	Session: NUMERICAL METHODS AND APPLICATIONS Venue**: IMM** *Chairman: Juan Ramón Torregrosa*
11:40 - 12:00	**Francisco I. Chicharro**, Suitable approximations for the self-accelerating Parameters in Iterative methods with memory
12:00-12:20	**Raudys R. Capdevila**, Dynamical analysis of three step methods for solving nonlinear systems
12:20-12:40	**Neus Garrido Saez,** Iterative algorithms for computing generalized inverses
12:40-13:00	**Michael M. Tung,** The relativistic harmonic oscillator in a uniform gravitational field
13:00-13:20	**Borja Ferrándiz,** Efficient finite element modelling of sound propagation in after-treatment devices with arbitrary cross section
	MODELLING IN SOCIAL SCIENCES Venue: **IMM** *Chairman: Joan C. Micó*
15:40–16:00	**Salvador Amigó**, Dopamine imbalance: a systemic aproach to diseases and treatments
16:00 - 16:20	**Antonio Caselles**, Invariant energy in short-term personality dynamics
16:20 - 16:40	**Joan C. Micó**, A proposal of quantum short time personality dynamics
16:40 - 17:00	**Felipe Rodrigo Monsalve Montoya,** Energy footprint reduction of Chile's social interest homes: an integer linear programming approach
17:00-17:20	**María Consuelo Casabán,** Stable positive Monte Carlo finite difference techniques for random parabolic partial differential equations

Friday 10th

	NETWORK MODELLING - ENGINEERING PROBLEMS Venue: **IMM** *Chairwoman: Alicia Cordero*
9:30–9:50	**Mario Rubio,** An algorithm for Boolean networks models inference
9:50 - 10:10	**Francisco Pedroche,** On comparing Spotify Top 200 lists
10:10 - 10:30	**Antonio Hervás,** Communities' detection in weakly connected directed graphs
10:30 - 10:50	**Emilio Defez,** Approximating the hyperbolic tangent matrix function
10:50-11:10	**Clara Burgos Simón**, An integrated model to optimize berth allocation problem and yard planner
11:10-11:30	**Silvia Carpitella,** Bayesian network approach to integrate the human factor in FMECA-based risk evaluation
11:30 - 12:00	**BREAK**
	COVID-19 MODELS & OTHER APPLICATIONS Venue: **IMM** *Chairman: Rafael Company*
12:00-12:20	**David Martínez-Rodríguez,** Epidemiological modelling of COVID-19 in Granada, Spain. Analysis of future scenarios
12:20-12:40	**María T. Sanz,** A system dynamics model to predict the impact of COVID-19 in Spain
12:40-13:00	**Maria Teresa Signes Pont,** An epidemic grid model to address the spread of Covid-19. The case of Valencian Community (Spain)
13:00-13:20	**José Antonio López Ortí,** A note on the use the semifocal anomaly as temporal variable in the two body problem

Para aquellas personas que confirmaron la asistencia a la comida del viernes 10 de julio, comunicarles que tendrá lugar en La Lonja del Pescado, Calle Eugenia Viñes, 243 a las 14:00h.