

Relació d'articles amb APC 2024 assignades a articles publicats pel personal investigador de la UPC per a la seva publicació en accés obert immediat

1. Grups de recerca que tenen igual o més de 10 PAR tipus 1 per EDP

ACaPE - Advanced Control and Power Electronics Systems

- BIEL, D., ARROYO, A. and REPECHO, V., 2024. Voltage regulation in an interleaved circular chain sliding mode controlled multiphase converter. *Journal of the Franklin Institute*, vol. 361, no. 11, DOI 10.1016/j.jfranklin.2024.106928.

- DI PALO, E., OLM, J.M., DÒRIA-CEREZO, A. and BERNARDO, M. di, 2024. Sliding Mode Control-Based Synchronization of Complex-Valued Neural Networks. *IEEE Transactions on Control of Network Systems*, vol. 11, no. 3, DOI 10.1109/tcns.2023.3336830.

- IUDICE, F.L., OLM, J.M. and SUÁREZ, R., 2024. Optimal recharge sequencing in multi-AGV systems: A mixed ILP approach. *Computers & Industrial Engineering*, vol. 196, DOI 10.1016/j.cie.2024.110510.

AADB - Anàlisi de Dades Complexes per a les Decisions Empresarials

- SERRA-BURRIEL, F., DELICADO, P., CUCCHIETTI, F.M., GRAELLS-GARRIDO, E., GIL, A. and EGUSKIZA, I., 2024. When are they coming? Understanding and forecasting the timeline of arrivals at the FC Barcelona stadium on match days. *Machine Learning*, vol. 113, no. 5, DOI 10.1007/s10994-023-06499-3.

- DELICADO, P. and PACHÓN-GARCÍA, C., 2024. Multidimensional scaling for big data. *Advances in Data Analysis and Classification*, DOI 10.1007/s11634-024-00591-9.

AiEM - Arquitectura, energia i medi ambient

- LOPEZ-ORDOÑEZ, C., GARCIA-NEVADO, E., CRESPO-CABILLO, I., ROSET CALZADA, J. and COCH, H., 2024. Reducing residential cooling demand in a sprawling desert city through vertical urban densification. *Journal of Building Engineering*, vol. 95, DOI 10.1016/j.jobbe.2024.110089.

- ROCA-MUSACH, M., SERRA-COCH, G., CRESPO CABILLO, I. and COCH ROURA, H., 2024. Machine-learning to analyze human-building interactions: How do people use mobile solar protections? *Journal of Building Engineering*, vol. 98, DOI 10.1016/j.jobbe.2024.111039.

ALBCOM - Algorismia, Bioinformàtica, Complexitat i Mètodes Formals

- DOMÈNECH, M., GIMÉNEZ, J.M. and PUENTE, M.A., 2024. New characterizations and a concept of potential for each multinomial (probabilistic) value. *Discrete Applied Mathematics*, vol. 348, DOI 10.1016/j.dam.2024.01.021.

- PASARELLA, E., VIDAL, M.-E., ZOLTAN, C. and ROYO SALES, J.P., 2024. A computational framework based on the dynamic pipeline approach. *Journal of Logical and Algebraic Methods in Programming*, vol. 139, DOI 10.1016/j.jlamp.2024.100966.
- DUCH, A. and MARTÍNEZ, C., 2024. On the Expected Cost of Partial Match Queries in Random Quad-K-d Trees. *La Matematica*, vol. 3, no. 1, DOI 10.1007/s44007-024-00090-5.
- CARRERAS, F. and MAGAÑA, A., 2024. Stability for Coalition Structures in Terms of the Proportional Partitional Shapley Value. *Homo Oeconomicus*, DOI 10.1007/s41412-024-00143-8.
- DÍAZ, J., DINER, Ö.Y., SERNA, M. and SERRA, O., 2024. On minimum vertex bisection of random d-regular graphs. *Journal of Computer and System Sciences*, vol. 144, DOI 10.1016/j.jcss.2024.103550.
- PINO, Elvira, OREJAS, F., MYLONAKIS, N. and PASARELLA, E., 2024. A logical approach to graph databases. *Journal of Logical and Algebraic Methods in Programming*, vol. 141, DOI 10.1016/j.jlamp.2024.100997.

ANiComp - Anàlisi Numèrica i Computació Científica

- CASTAÑAR, I., BAIGES, J. and CODINA, R., 2024. Topology optimization of incompressible structures subject to fluid–structure interaction. *Structural and Multidisciplinary Optimization*, vol. 67, no. 6, DOI 10.1007/s00158-024-03770-6.
- AGUIRRE, A., CODINA, R. and BAIGES, J., 2024. Stress–displacement stabilized finite element analysis of thin structures using solid-shell elements, Part I: On the need of interpolating the stresses. *Finite Elements in Analysis and Design*, vol. 236, DOI 10.1016/j.finel.2024.104168.
- AGUIRRE, A., CODINA, R., BAIGES, J. and CASTAÑAR, I., 2024. Stress–displacement stabilized finite element analysis of thin structures using Solid-Shell elements, Part II: Finite strain hyperelasticity. *Finite Elements in Analysis and Design*, vol. 236, DOI 10.1016/j.finel.2024.104179.
- CODINA, R., CASTAÑAR, I. and BAIGES, J., 2024. Finite element approximation of stabilized mixed models in finite strain hyperelasticity involving displacements and stresses and/or pressure—An overview of alternatives. *International Journal for Numerical Methods in Engineering*, vol. 125, no. 18, DOI 10.1002/nme.7540.

ANT - Advanced Nuclear Technologies Research Group

- AL-AWAD, A.S., BATET, L., RIVES, R. and SEDANO, L., 2024. Stochastic computer experiments of the thermodynamic irreversibility of bulk nanobubbles in supersaturated and weak gas–liquid solutions. *The Journal of Chemical Physics*, vol. 161, no. 2, DOI 10.1063/5.0204665.

- MARTIN, K., CASAMOR, M., MARTINEZ-QUIROGA, V., PEREZ-FERRAGUT, M., ZHONGYUN, J. and FREIXA, J., 2024. Application of the ANT assessment methodology for validating LOCUST 1.2 thermal-hydraulic code. *Nuclear Engineering and Design*, vol. 427, DOI 10.1016/j.nucengdes.2024.113410.

ARCO - Microarquitectura i Compiladors

- PINTO, D., ARNAU, J.-M., RIERA, M., CRUZ, J.-L. and GONZÁLEZ, A., 2024. Exploiting beam search confidence for energy-efficient speech recognition. *The Journal of Supercomputing*, vol. 80, no. 17, DOI 10.1007/s11227-024-06351-y.

- PINTO, D., ARNAU, Jose-María, RIERA, M., CRUZ, J.-L. and GONZÁLEZ, A., 2024. Mixture-of-Rookies: Saving DNN computations by predicting ReLU outputs. *Microprocessors and Microsystems*, vol. 109, DOI 10.1016/j.micpro.2024.105087.

- HUERTA, R., CRUZ, J.-L., ARNAU, J.-M. and GONZÁLEZ, A., 2024. SIMIL: SIMple Issue Logic for GPUs. *Microprocessors and Microsystems*, vol. 111, DOI 10.1016/j.micpro.2024.105105.

- KHABBAZAN, B., SABRI, M., RIERA, M. and GONZÁLEZ, A., 2025. An energy-efficient near-data processing accelerator for DNNs to optimize memory accesses. *Journal of Systems Architecture*, vol. 159, DOI 10.1016/j.sysarc.2024.103320.

ATEM - Anàlisi i Tecnologia d'Estructures i Materials

- CHACÓN, R., POSADA, H., RAMONELL, C., JUNGSMANN, M., HARTMANN, T., KHAN, R. and TOMAR, R., 2024. Digital twinning of building construction processes. Case study: A reinforced concrete cast-in structure. *Journal of Building Engineering*, vol. 84, DOI 10.1016/j.jobbe.2024.108522.

- CUADROS-ROJAS, E., SALOUSTROS, S., TARQUE, N. and PELÀ, L., 2024. Photogrammetry-aided numerical seismic assessment of historical structures composed of adobe, stone and brick masonry. Application to the San Juan Bautista Church built on the Inca temple of Huaytará, Peru. *Engineering Failure Analysis*, vol. 158, DOI 10.1016/j.engfailanal.2024.107984.

- CUADROS-ROJAS, E., GARCIA-RAMONDA, L., ROCA, P. and PELÀ, L., 2024. Experimental analysis of the compressive behaviour of perforated brick masonry using digital image correlation. *Construction and Building Materials*, vol. 431, DOI 10.1016/j.conbuildmat.2024.136471.

- MURCIA-DELISO, J., BIRRELL, M., ASTROZA, R. and CARRILLO, J., 2024. Tensile strength and slip model for steel reinforcement anchorages and lap splices. *Structures*, vol. 66, DOI 10.1016/j.istruc.2024.106808.

- CUADROS-ROJAS, E., GARCIA-RAMONDA, L., ROCA, P. and PELÀ, L., 2024b. Out-of-plane bending behaviour of masonry walls with high-strength steel cord mesh bed joint reinforcement. *Construction and Building Materials*, vol. 457, DOI 10.1016/j.conbuildmat.2024.139377.

- VINTIMILLA, C. and ETXEBERRIA, M., 2025. Limiting the maximum fine and coarse recycled aggregates - Type B used in structural concrete. *Construction and Building Materials*, vol. 459, DOI 10.1016/j.conbuildmat.2024.139791.

BBT - Grup de recerca en Biomaterials, Biomecanica i Enginyeria de Teixits

- VILELLA, T., RODRÍGUEZ, D. and FARGAS, G., 2024. Additive manufacturing of Ni-free Ti-based shape memory alloys: A review. *Biomaterials Advances*, vol. 158, DOI 10.1016/j.bioadv.2024.213774.

- DEL-MAZO-BARBARA, L., JOHANSSON, L., TAMPIERI, F. and GINEBRA, M.-P., 2024. Toughening 3D printed biomimetic hydroxyapatite scaffolds: Polycaprolactone-based self-hardening inks. *Acta Biomaterialia*, vol. 177, DOI 10.1016/j.actbio.2024.02.012.

- ESPONA-NOGUERA, A., ŽIVANIĆ, M., SMITS, E., BOGAERTS, A., PRIVAT-MALDONADO, A. and CANAL, C., 2024. Unlocking Novel Anticancer Strategies: Bioactive Hydrogels for Local Delivery of Plasma-Derived Oxidants in an In Ovo Cancer Model. *Macromolecular Bioscience*, vol. 24, no. 11, DOI 10.1002/mabi.202400213.

- SHEN, S., TAMPIERI, F., GARCIA, M.C. and CANAL, C., 2024. Design and characterization of a nano-pulsed atmospheric pressure plasma jet for biomedical applications. *Plasma Processes and Polymers*, vol. 21, no. 10, DOI 10.1002/ppap.202400086.

- MALANDRINO, A., ZHANG, H., SCHWARM, N., BÖHRINGER, D., KAH, D., KUSTER, C., BOCCACCINI, A.R. and FABRY, B., 2024. Plasticity of 3D Hydrogels Predicts Cell Biological Behavior. *Biomacromolecules*, vol. 25, no. 12, DOI 10.1021/acs.biomac.4c00765.

- GARCÍA-TORRES, J., 2025. Fabrication and Characterization of Flexible Fiber-Shape Supercapacitors: Learning Basic Concepts of Materials Chemistry and Electrochemistry Applied to Energy Storage. *Journal of Chemical Education*, DOI 10.1021/acs.jchemed.4c01217.

BIOART - BIOsignal Analysis for Rehabilitation and Therapy

- TOST, A., ROMERO, S., ALONSO, J.F., BACHILLER, A., SERNA, L.-Y., MEDINA-RIVERA, I., GARCÍA-CAZORLA, Á. and MAÑANAS, M.Á., 2024. EEG connectivity patterns in response to gaming and learning-based cognitive stimulations in Rett syndrome. *Research in Developmental Disabilities*, vol. 150, DOI 10.1016/j.ridd.2024.104751.

- MIJANCOS-MARTÍNEZ, G., BACHILLER, A., FERNÁNDEZ-LINSENBARTH, I., ROMERO, S., SERNA, L.Y., MOLINA, V. and MAÑANAS, M.Á., 2024. Individualized time windows enhance TMS-EEG signal characterization and improve assessment of cortical function in schizophrenia. *European Archives of Psychiatry and Clinical Neuroscience*, DOI 10.1007/s00406-024-01859-z.

BIOCOM-SC - Biologia Computacional i Sistemes Complexos

- GUNA, R.T.A., SIKHA, O.K. and BENITEZ, R., 2024. Interpreting CNN predictions using conditional Generative Adversarial Networks. *Knowledge-Based Systems*, vol. 302, DOI 10.1016/j.knosys.2024.112340.
- PHILIPP, W., YASHWANTHIKA, R., SIKHA, O.K. and BENITEZ, R., 2024. Generation of Rule-Based Explanations of CNN Classifiers Using Regional Features. *Neural Processing Letters*, vol. 56, no. 5, DOI 10.1007/s11063-024-11678-x.
- PERRAMON-MALAVEZ, A., DE RIOJA, V.L., COMA, E., HERMOSILLA, E., FINA, F., MARTÍNEZ-MARCOS, M., MENDIOROZ, J., CABEZAS, C., MONTAÑOLA-SALES, C., PRATS, C. and SORIANO-ARANDES, A., 2024. Introduction of nirsevimab in Catalonia, Spain: description of the incidence of bronchiolitis and respiratory syncytial virus in the 2023/2024 season. *European Journal of Pediatrics*, vol. 183, no. 12, DOI 10.1007/s00431-024-05779-x.
- PALOS, M.F. and GONZÁLEZ-CINCA, R., 2025. Modeling and simulation of a full ISRU-based system for energy storage and electricity generation on the Moon. *Advances in Space Research*, vol. 75, no. 1, DOI 10.1016/j.asr.2024.11.019.

BIT - Barcelona Innovative Transportation

- JIMÉNEZ, E. and SORIGUERA, F., 2024. A continuous approximation model for the optimal design of mixed free-floating and station-based car-sharing systems. *Sustainable Cities and Society*, vol. 113, DOI 10.1016/j.scs.2024.105673.
- PALLARÈS, B., BADIA, H. and ESTRADA, M., 2025. Coupled design of urban and interurban transit networks with a park-and-ride system: Analytical formulation and case study in Barcelona. *Travel Behaviour and Society*, vol. 39, DOI 10.1016/j.tbs.2024.100963.

CATMech - Centre Avancat de Tecnologies Mecàniques

- FAKHRAEI, J., ARCOS, R., PÀMIES, T., LIRAVI, H., GODINHO, L. and ROMEU, J., 2024. A novel hybrid SBM-MFS methodology for acoustic wave propagation problems. *Journal of Sound and Vibration*, vol. 586, DOI 10.1016/j.jsv.2024.118500.
- BERNAT-MASO, E., MARTINEZ, B., MENDIZÁBAL, V., MERCEDES, L. and GIL, L., 2024. Experimental assessment of yarns and coatings for mesh production to strengthen earthen elements. *Construction and Building Materials*, vol. 432, DOI 10.1016/j.conbuildmat.2024.136592.
- ELMANSY, R., BERGADÀ, J.M., SARWAR, W. and MELLIBOVSKY, F., 2024. Parametric analysis of the flow past a square cylinder in the interface of two different-velocity streams. *Physics of Fluids*, vol. 36, no. 5, DOI 10.1063/5.0206837.

- TOUSI, N.M., BERGADÀ, J.M. and MELLIBOVSKY, F., 2024. Effects of turbulence boundary conditions on Spalart-Allmaras RANS simulations for active flow control applications. *Meccanica*, vol. 59, no. 12, DOI 10.1007/s11012-024-01904-0.

- MENDIZABAL, V., MARTÍNEZ, B., BERNAT-MASO, E. and GIL, L., 2024. RC beams strengthened with hemp-FRCM and cotton-FRCM under cyclic bending loads. *Engineering Structures*, vol. 318, DOI 10.1016/j.engstruct.2024.118718.

CDIF - Centre de Diagnostic Industrial i Fluidodinàmica

- MORAGA, G., MUT, V., GIRARDELO, J., MAZZOUJI, F., VALENTÍN, D., EGUSQUIZA, M., EGUSQUIZA, E. and PRESAS, A., 2024. Excessive vibrations experienced in a Kaplan turbine at speed no load. *Engineering Failure Analysis*, vol. 160, DOI 10.1016/j.engfailanal.2024.108228.

CELBIOTECH - Enginyeria Paperera

- QUINTANA, E., VALLS, C. and RONCERO, M.B., 2024. Valorization of waste paper sludge as a sustainable source for packaging applications. *Polymer Bulletin*, vol. 81, no. 10, DOI 10.1007/s00289-024-05138-8.

- FERNÁNDEZ-SANTOS, J., VALLS, C., CUSOLA, O. and RONCERO, M.B., 2024. Periodate oxidation of nanofibrillated cellulose films for active packaging applications. *International Journal of Biological Macromolecules*, vol. 267, DOI 10.1016/j.ijbiomac.2024.131553.

CEMAD - Caracteritzacio Elèctrica de Materials i Dispositius

- LÓPEZ-BLANCO, S., RUBIO-MARCOS, F., BARRÓN, A., OCHOA, D.A. and GARCÍA, J.E., 2024. Flash sintering of potassium-sodium niobate-based piezoceramics: Refining (micro)structure for properties enhancement. *Journal of the European Ceramic Society*, vol. 44, no. 10, DOI 10.1016/j.jeurceramsoc.2024.03.021.

- OCHOA, D.A., MENÉNDEZ, E., LÓPEZ-SÁNCHEZ, J., DEL CAMPO, A., MA, Z., SPASOJEVIĆ, I., FINA, I., FERNÁNDEZ, J.F., RUBIO-MARCOS, F., SORT, J. and GARCÍA, J.E., 2024. Reversible optical control of magnetism in engineered artificial multiferroics. *Nanoscale*, vol. 16, no. 9, DOI 10.1039/d3nr05520e.

CITCEA-UPC - Centre d'Innovacio Tecnologica en Convertidors Estàtics i Accionaments

- GADELHA, V., BULLICH-MASSAGUÉ, E. and SUMPER, A., 2024. Optimal Power Flow in electrical grids based on power routers. *Electric Power Systems Research*, vol. 234, DOI 10.1016/j.epsr.2024.110581.

- GIRONA-BADIA, J., LACERDA, V.A., PRIETO-ARAUJO, E. and GOMIS-BELLMUNT, O., 2024. Enhancing the AC network stability with a grid-forming control for single-stage PV inverter. *Electric Power Systems Research*, vol. 235, DOI 10.1016/j.epsr.2024.110666.

- FALCHI, D., PRIETO-ARAUJO, E. and GOMIS-BELLMUNT, O., 2024. Power Capability Domain Analysis for M2DC-Based AC/DC/DC Multi-Port Converter. *IEEE Transactions on Power Delivery*, vol. 39, no. 4, DOI 10.1109/tpwrd.2024.3400951.

- MONTALÀ PALAU, M., CHEAH MAÑÉ, M. and GOMIS-BELLMUNT, O., 2025. Techno-economic optimization for BESS sizing and operation considering degradation and ramp rate limit requirement. *Journal of Energy Storage*, vol. 105, DOI 10.1016/j.est.2024.114631.

- USECHE-ARTEAGA, M., GOMIS-BELLMUNT, O., CHEAH-MANE, M., LACERDA, V. and GEBRAAD, P., 2024. AC energy islands for the optimal integration of offshore wind energy resources: Operation strategies using multi-objective nonlinear programming. *Sustainable Energy, Grids and Networks*, vol. 40, DOI 10.1016/j.segan.2024.101576.

CITES - Grup de Recerca en Ciència i Tecnologia de la Sostenibilitat

- EL HAMMADI, N., ALMAJANO, M.P., PASTOR, M.V. and CODINA-TORRELLA, I., 2024. Artubuts unedo L. leaves extract as a potential ingredient for the production of active-films and the preservation of oil-in-water (O/W) emulsions from oxidation. *LWT*, vol. 214, DOI 10.1016/j.lwt.2024.117110.

CNDS - Xarxes de Computadors i Sistemes Distribuïts

- BAIG, R., CERDÀ-ALABERN, L., VÍLCHEZ, P. and FOGLIA, E., 2024. eXO: A commons-based community network Internet Service Provider, description and subscribers usage patterns. *Computer Networks*, vol. 254, DOI 10.1016/j.comnet.2024.110765.

CoDALab - Control, Dades i Intel·ligència Artificial

- BARRERA, K., RODELLAR, J., ALFÉREZ, S. and MERINO, A., 2024. A deep learning approach for automatic recognition of abnormalities in the cytoplasm of neutrophils. *Computers in Biology and Medicine*, vol. 178, DOI 10.1016/j.combiomed.2024.108691.

CommSensLab-UPC - Centre Específic de Recerca en Comunicació i Detecció UPC

- MONTEIRO, C. and JOFRE, L., 2024. Flow regime analysis of high-pressure transcritical fluids in microducts. *International Journal of Heat and Mass Transfer*, vol. 224, DOI 10.1016/j.ijheatmasstransfer.2024.125295.

- BUITRAGO-LEIVA, J.N., RAMOUZ, M.E.K., CAMPS, A. and RUIZ-DE-AZUA, J.A., 2024b. Towards a second life for Zombie Satellites: Anomaly occurrence and potential recycling assessment. *Acta Astronautica*, vol. 217, DOI 10.1016/j.actaastro.2024.01.048.

- TAGDULANG, N., KRKOTIĆ, P., DIEZ-COMAS, A., PONT, M. and O'CALLAGHAN, J.M., 2025. Multimode Dielectric Resonator for Accurate Determination of Frequency and Temperature Dependence of Complex Permittivity in Small, High-Permittivity Cylinders. *IEEE Transactions on Instrumentation and Measurement*, vol. 74, DOI 10.1109/tim.2024.3522383.

CREDA-UPC-IRTA - Centre de Recerca en Economia i Desenvolupament Agroalimentari UPC-IRTA

- RAMÍREZ-RODRÍGUEZ, S., SARROCA, A., PELOSSO, S., FERNÁNDEZ-GUERRERO, D. and PUIG, L.R., 2024. Food waste in high income countries: Spanish fish value chain as a case study. *Fisheries Research*, vol. 279, DOI 10.1016/j.fishres.2024.107134.

- MUSTAPA, M.A.C., KALLAS, Z., LÓPEZ-MAS, L., ALAMPRESE, C., CONTIERO, S. and AGUILÓ-AGUAYO, I., 2024. Consumer attitudes, willingness to pay and hedonic evaluations of innovative legume gnocchi products. *Journal of the Science of Food and Agriculture*, DOI 10.1002/jsfa.14063.

CREMIT - Centre de Recerca de Motors i Instal·lacions Tèrmiques

- GUTIÉRREZ, E., SALA, D. and DELPEUCH, J., 2024. Low-pressure gasoline direct injection system development and emissions analysis for a reciprocating two-stroke engine. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, vol. 46, no. 5, DOI 10.1007/s40430-024-04879-x.

- PÉREZ-LANTERO, P., SEARA, C. and URRUTIA, J., 2024. Rectilinear convex hull of points in 3D and applications. *Journal of Global Optimization*, vol. 90, no. 2, DOI 10.1007/s10898-024-01402-3.

CROMAI - Computing Resources Orchestration and Management for AI

- GUITART, J., 2024. Practicable live container migrations in high performance computing clouds: Diskless, iterative, and connection-persistent. *Journal of Systems Architecture*, vol. 152, DOI 10.1016/j.sysarc.2024.103157.

DCCG - Discrete, Combinational, and Computational Geometry

- CHAPLICK, S., KLUTE, F., PARADA, I., ROLLIN, J. and UECKERDT, T., 2024. Edge-minimum saturated k-planar drawings. *Journal of Graph Theory*, vol. 106, no. 4, DOI 10.1002/jgt.23097.

- LOZANO, A., 2024. The oriented chromatic number of the hexagonal grid is 6. *Discrete Applied Mathematics*, vol. 355, DOI 10.1016/j.dam.2024.04.032.

DF-GeoTech - Dinàmica de Fluids i Aplicacions Geofísiques i Tecnològiques

- ALTMAYER, S.A., 2024. Controlling Couette flow by alternating axial mass flux. *Physics of Fluids*, vol. 36, no. 5, DOI 10.1063/5.0197106.

- ALARCÓN, M., CASAS-CASTILLO, M. del C., RODRÍGUEZ-SOLÀ, R., PERIAGO, C. and BELMONTE, J., 2024. Projections of the start of the airborne pollen season in Barcelona (NE Iberian Peninsula) over the 21st century. *Science of The Total Environment*, vol. 937, DOI 10.1016/j.scitotenv.2024.173363.

- ALTMAYER, S.A., 2024b. Forced flow reversal in ferrofluidic Couette flow via alternating magnetic field. *Physics of Fluids*, vol. 36, no. 11, DOI 10.1063/5.0238005.

- MESEGUER, A., ALONSO, A., BATISTE, O., AN, B. and MELLIBOVSKY, F., 2024. Bifurcation analysis in the regularized four-sided cavity flow: Equilibrium states in a D2-symmetric fluid system. *Physics of Fluids*, vol. 36, no. 6, DOI 10.1063/5.0208089.

DONLL - Dinamica no Lineal, Optica no Lineal i Lasers

- GANCIO, J., MASOLLER, C. and TIRABASSI, G., 2024. Permutation entropy analysis of EEG signals for distinguishing eyes-open and eyes-closed brain states: Comparison of different approaches. *Chaos: An Interdisciplinary Journal of Nonlinear Science*, vol. 34, no. 4, DOI 10.1063/5.0200029.

DOPS - Disseny i Optimització de Processos i Serveis

- MATEO-DOLL, M. and AGHEZZAF, E., 2024. Optimizing extracurricular activities assignment and related logistical deployment cost between collaborating schools. *International Transactions in Operational Research*, vol. 32, no. 2, DOI 10.1111/itor.13458.

- ANICH, N. and MATEO-DOLL, M., 2024. Manufacturing synergies in the redesign of multi-business supply chains through linear programming to meet the evolution of demand. *Central European Journal of Operations Research*, DOI 10.1007/s10100-024-00918-z.

- SAVALL-MAÑÓ, M. and RIBAS, I., 2024. Assessing the viability of parking slot utilization as transshipment points for parcel carriers: a case study in Barcelona. *Central European Journal of Operations Research*, DOI 10.1007/s10100-024-00925-0.

- RANABOLDO, M., ARAGÜÉS-PEÑALBA, M., ARICA, E., BADE, A., BULLICH-MASSAGUÉ, E., BURGIO, A., CACCAMO, C., CAPRARA, A., CIMMINO, D., DOMENECH, B., DONOSO, I., FRAGAPANE, G., GONZÁLEZ-FONT-DE-RUBINAT, P., JAHNKE, E., JUANPERA, M., MANAFI, E., RÖVEKAMP, J. and TANI, R., 2024. A comprehensive overview of industrial demand response status in Europe. *Renewable and Sustainable Energy Reviews*, vol. 203, DOI 10.1016/j.rser.2024.114797.

eb-POLICOM - Polimers i Compositos Ecològics i Biodegradables

- ARIOLI, M., FRANCO, L. and PUIGGALÍ, J., 2024. Non-isothermal crystallization and thermal degradation studies on nylons 7,10 and 10,7 as isomeric odd-even and even-odd polyamides. *Thermochimica Acta*, vol. 735, DOI 10.1016/j.tca.2024.179721.

EduSTEAM - STEAM University Learning Research Group

- GUERRERO, M.J.C. and ALIER FORMENT, M., 2024. Case Studies About Moral Dilemmas to Apply Ethical Theories in Engineering Education. *IEEE Revista Iberoamericana de Tecnologías del Aprendizaje*, vol. 19, DOI 10.1109/rita.2024.3368609.

- PEREZ-POCH, A., BALLESTER, M., TRESANCHEZ, M., TORNER, J., GONZÁLEZ, D.V., ALPISTE, F., BRIGOS, M., SÁNCHEZ, E., MARTÍNEZ, G., GARCÍA, S., POLYZOS, N.P. and BOADA, M., 2024. Decreased human sperm motility and vitality after fast gravity load

changes in a parabolic flight. *Acta Astronautica*, vol. 223, DOI 10.1016/j.actaastro.2024.07.050.

EFRICS - Efficient and Robust Integrated Circuits and Systems

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ENMA - Enginyeria del Medi Ambient

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GAECEQS - Grup d'Accionaments Electromecànics, Conversió de l'Energia i Qualitat del Subministrament

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GBMI - Grup de Biotecnologia Molecular i Industrial

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GCO - Grup de Comunicacions Òptiques

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Geo2Aqua - Monitoring, modelling and geomatics for hydro-geomorphological processes

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GEOMVAP - Geometria de Varietats i Aplicacions

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GGMM - Grup de Geotècnia i Mecànica de Materials

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GHS - Grup d'Hidrologia Subterrània

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GICITED - Grup Interdisciplinari de Ciència i Tecnologia en l'Edificació

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GiES - Geofísica i Enginyeria Sismica

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GOAPI - Grup d'Optica Aplicada i Processament d'Imatge

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GREO - Grup de Recerca en Enginyeria òptica

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GRO - Grup de Recerca en Organització

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GRU - Grup de Recerca Urbanisme

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HorPTA - Horticultura: producció, transformació i aprofitament

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ICARUS - Intelligent Communications and Avionics for Robust Unmanned Aerial Systems

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IDEAI-UPC - Intelligent Data sciEnce and Artificial Intelligence Research Group

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IEB - Instrumentació Electrònica i Biomèdica

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IMEM-BRT - Innovation in Materials and Molecular Engineering - Biomaterials for Regenerative Therapies

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inSSIDE - integrated Software, Services, Information and Data Engineering

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IONHE - Ionising Radiation, Health and Environment

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ISI - Grup d'Instrumentació, Sensors i Interfícies

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LACAN – UPC - Metodes Numèrics en Ciències Aplicades i Enginyeria

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L'AIRE - Laboratory of Aeronautical and Industrial Research and Studies

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LIM/UPC - Laboratori d'Enginyeria Marítima

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LRG - Lightning Research Group

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MATCAR - Materials de Construcció i Carreteres

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MMCE - Mecànica de Medis Continus i Estructures

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MNT-Solar - Grup de Micro i Nano Tecnologies per Energia Solar

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PM - Programming Models

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POLQUITEX - Materials Polimèrics i Química Textil

- MARTÍNEZ-VILA, S., RIERA-MALGOSA, L., PRIETO-FUENTES, R., DURAN-SERRA, A. and CARRILLO-NAVARRETE, F., 2025. Chemical recycling of polyester fabrics by alkaline hydrolysis using alcohols as cosolvents. *Sustainable Chemistry and Pharmacy*, vol. 43, DOI 10.1016/j.scp.2024.101891.

POLTEPO - Polimers Termoestables Epoxídics

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POLY2 - Polyfunctional polymeric materials

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PTP-GlaDyM - Phase transitions, polymorphism, glasses and dynamics of the metastability

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QURBIS - Quality of Urban Life: Innovation, Sustainability and Social Engagement

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R2EM - Resource Recovery and Environmental Management

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RAIG - Mobile Robotics and Artificial Intelligence Group

- DOMÍNGUEZ-VIDAL, J.E., RODRÍGUEZ, N. and SANFELIU, A., 2024. Perception-Intention-Action Cycle in Human-Robot Collaborative Tasks: The Collaborative Lightweight Object Transportation Use-Case. *International Journal of Social Robotics*, DOI 10.1007/s12369-024-01103-7.

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REMM - Recerca en Estructures i Mecànica de Materials

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RFLEX - Radio Frequency Identification and Flexible Electronics

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RIIS - Grup de Recerca en Recursos i Industries Intel·ligents i Sostenibles

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ROBiri - Grup de Percepció i Manipulació Robotitzada de l'IRI

- COLTRARO, F., AMORÓS, J., ALBERICH-CARRAMIÑANA, M. and TORRAS, C., 2024. A novel collision model for inextensible textiles and its experimental validation. *Applied Mathematical Modelling*, vol. 128, DOI 10.1016/j.apm.2024.01.030.

SARTI-MAR - Sistemes d'Adquisició Remota de dades i Tractament de la Informació en el Medi Mari

- LÓPEZ-GARCÍA, M., FAROUK-MAREI, D.G. and CANTÓ-NAVARRO, E., 2025. Converting Fixed-Length Binary Strings into Constant Weight Words: Application on Post-Quantum Cryptography. *IEEE Transactions on Dependable and Secure Computing*, DOI 10.1109/tdsc.2024.3524626.

SEER - Sistemes Elèctrics d'Energia Renovable

- LAGUNA, G., MORENO, P., CIPRIANO, J., MOR, G., GABALDÓN, E. and LUNA, A., 2024. Detection of abnormal photovoltaic systems' operation with minimum data requirements based on Recursive Least Squares algorithms. *Solar Energy*, vol. 274, DOI 10.1016/j.solener.2024.112556.

SEPIC - Sistemes Elèctrics de Potència i de Control

- DUARTE, J., VELASCO, M., MARTÍ, P., BORRELL, Á. and CASTILLA, M., 2024. Remote Multinodal Voltage Unbalance Compensation in Islanded AC Microgrids. *IEEE Transactions on Power Electronics*, vol. 39, no. 3, DOI 10.1109/tpel.2023.3340093.

SISCOM - Smart Services for Information Systems and Communication Networks

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SMARt - Sustainability and Metabolism in Architecture and Technology

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SOC-STEM - Impacte Social de les STEM

- BALTÀ-SALVADOR, R., EL-MADAFRI, I., BRASÓ-VIVES, E. and PEÑA, M., 2025. Empowering Engineering Students Through Artificial Intelligence (AI): Blended Human–AI Creative Ideation Processes With ChatGPT. *Computer Applications in Engineering Education*, vol. 33, no. 1, DOI 10.1002/cae.22817.

SPCOM - Processament del Senyal i Comunicacions

- COCCO, G., GUILLÉN I FÀBREGAS, A. and FONT-SEGURA, J., 2024. A Refinement of Expurgation. *IEEE Transactions on Information Theory*, vol. 70, no. 12, DOI 10.1109/tit.2024.3388563.

TECNOFAB - Grup de Recerca en Tecnologies de Fabricació

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TecSalut - Grup de Recerca en Tecnologies de la Salut

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TECTEX - Grup de Recerca en Tecnologia Tèxtil

- RAKHSH MAHPOUR, A., ARDANUY, M., VENTURA, H., ROSELL, J.R. and CLARAMUNT, J., 2024. Mechanical properties and durability of biobased fabric-reinforced lime composites intended for strengthening historical masonry structures. *Construction and Building Materials*, vol. 414, DOI 10.1016/j.conbuildmat.2024.134916.

TOC - Tecnologia orientada a la comunitat

- GUINDAL, E.P., PARRA, X., MUSTÉ, M., PÉREZ, C., MACHO, O. and CATALÀ, A., 2024. Analysis of the Correspondence of the Degree of Fragility with the Way to Exercise the Force of the Hand. *The Journal of Frailty & Aging*, vol. 13, no. 3, DOI 10.14283/jfa.2024.46.

UMA - Unitat de Mecanització Agrària

- SALAS, B., SALCEDO, R., GARCIA-RUIZ, F. and GIL, E., 2025. Field validation of a variable rate application sprayer equipped with ultrasonic sensors in apple tree plantations. *Precision Agriculture*, vol. 26, no. 1, DOI 10.1007/s11119-024-10201-5.

UPCDS - Grup de Sistemes Dinàmics de la UPC

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GAA - Grup d'Astronomia i Astrofísica

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3. Altres

En aquest apartat s'inclouen majoritàriament doctorands sense contracte/associats que no es poden vincular per normativa a GR, i altres excepcions (subgrups no vinculats a grups, grups SGR no UPC, etc.)

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