Relació d'articles amb APC 2025 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

- BUSQUETS-MONGE, Sergio, ALEPUZ, Salvador, NICOLÀS-APRUZZESE, Joan, JORDÀ, Xavier, RAYA, Mariana, FILBÀ-MARTÍNEZ, Álber and GARCIA-ROJAS, Gabriel, 2025. Quantum Power Electronics - The Ultimate Path for Optimal Power Conversion? *IEEE Transactions on Power Electronics*. 2025. P. 1–17. DOI 10.1109/tpel.2025.3648387.

- DÒRIA-CEREZO, Arnau, BOIRA-PUJOL, Pau, REPECHO, Víctor and BIEL, Domingo, 2026. Complex Sliding Averaging Control for Three-Phase Power Converters. *IEEE Transactions on Industrial Electronics*. January 2026. Vol. 73, no. 1, p. 1280–1291. DOI 10.1109/tie.2025.3591667.

ADBD - Anàlisi de Dades Complexes per a les Decisions Empresarials

- ACAR-DENIZLI, Nihan and DELICADO, Pedro, 2025. Functional data analysis for wearable sensor data: a systematic review. *AStA Advances in Statistical Analysis*. 18 June 2025. Vol. 109, no. 3, p. 591–631. DOI 10.1007/s10182-025-00531-8.

- ESPUÑA, Xavier, ACOSTA, Lesly and SÁNCHEZ-ESPIGARES, Josep Anton, 2026. Predicting salt uptake in dry-cured ham using longitudinal modeling and X-ray technology. *Meat Science*. February 2026. Vol. 232, p. 109979. DOI 10.1016/j.meatsci.2025.109979.

- IBÁÑEZ, Daniel González and PUIG, Xavier, 2025. Assessing the Impact on Sales of Competing Nearby Supermarkets. *Applied Stochastic Models in Business and Industry*. 22 October 2025. Vol. 41, no. 6. DOI 10.1002/asmb.70048.

- PUIG, Xavier and GINEBRA, Josep, 2025. Disease mapping with individual level information; a case study of acute myocardial infarction mortality. *Spatial and Spatio-temporal Epidemiology*. June 2025. Vol. 53, p. 100721. DOI 10.1016/j.sste.2025.100721.

ALBCOM - Algorismia, Bioinformàtica, Complexitat i Mètodes Formals

- ALBAREDA-SAMBOLA, Maria, MOLINERO, Xavier and ROURA, Salvador, 2025. Weightedness measures from inequality systems. *International Journal of*

Approximate Reasoning. July 2025. Vol. 182, p. 109418. DOI 10.1016/j.ijar.2025.109418.

ANiComp - Anàlisi Numèrica i Computació Científica

- AGUIRRE, A., ZORRILLA, R., BAIGES, J. and CODINA, R., 2025. Fluid-structure interaction approximation with embedded solid-shell finite elements using discontinuous shape functions. *Applied Mathematical Modelling*. July 2025. Vol. 143, p. 115994. DOI 10.1016/j.apm.2025.115994.

- CASTAÑAR, Inocencio, MORENO, Laura and CODINA, Ramon, 2026. Study of stabilized mixed formulations for fluid-structure interaction problems within a variational multiscale framework. *Computer Methods in Applied Mechanics and Engineering*. April 2026. Vol. 451, p. 118648. DOI 10.1016/j.cma.2025.118648.

- CODINA, Ramon, GRAVENKAMP, Hauke and KHAN, Sheraz Ahmed, 2025. A posteriori error estimates for the finite element approximation of the convection–diffusion–reaction equation based on the variational multiscale concept. *Applied Numerical Mathematics*. December 2025. Vol. 218, p. 238–260. DOI 10.1016/j.apnum.2025.08.003.

- RAHMANI, Saman, PRINCIPE, Javier and BAIGES, Joan, 2026. Coupled r−h mesh adaptation in embedded finite element frameworks. *Computer Methods in Applied Mechanics and Engineering*. January 2026. Vol. 448, p. 118488. DOI 10.1016/j.cma.2025.118488.

- SEKHAVATI, Javad, CODINA, Ramon, BAIGES, Joan and MARTÍNEZ-SUÁREZ, Ignacio, 2025. An a posteriori time error indicator for adaptive flow solvers. *Journal of Computational Physics*. October 2025. Vol. 539, p. 114258. DOI 10.1016/j.jcp.2025.114258.

ANT - Advanced Nuclear Technologies Research Group

- RIVES, Ronny and BATET, LLuís, 2026. Numerical investigation of 3D MHD pressure drop in a prototypical fusion blanket manifold using OpenFOAM. *Fusion Engineering and Design*. March 2026. Vol. 224, p. 115592. DOI 10.1016/j.fusengdes.2025.115592.

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

- COLOMBI, Samuele, ALEMÁN, Carlos and GARCÍA-TORRES, Jose, 2025. Free-standing, flexible and conformable bilayered polymeric nanomembranes

modified with gold nanomaterials as electronic skin sensors. *Colloids and Surfaces B: Biointerfaces*. June 2025. Vol. 250, p. 114558. DOI 10.1016/j.colsurfb.2025.114558.

- DEL RÍO, Eduardo Pérez, ESPLUGUES-LOPEZ, Angela, HEYVAERT, Yana, JERGITSCH, Maximilan, COLOMBI, Samuele, AHMADI, Maziar, MARTINEZ, Herminio, GINEBRA, Maria-Pau, ALEMÁN, Carlos, MATEOS-TIMONEDA, Miguel A. and GARCÍA-TORRES, Jose, 2026. Integrating electrical conductivity capability into 3D printed alginate-gelatin hydrogels as skin tissue constructs for temperature sensing. *Colloids and Surfaces B: Biointerfaces*. January 2026. Vol. 257, p. 115206. DOI 10.1016/j.colsurfb.2025.115206.

- GARCIA-DE-ALBENIZ, N., GINEBRA, M.-P., JIMÉNEZ-PIQUÉ, E. and MAS-MORUNO, C., 2025. Chemical etching-induced nanoroughness enhances cell response and antibacterial activity on zirconia. *Journal of the European Ceramic Society*. July 2025. Vol. 45, no. 7, p. 117236. DOI 10.1016/j.jeurceramsoc.2025.117236.

- GARCIA-DE-ALBENIZ, Nerea, MÜLLER, Daniel W., MÜCKLICH, Frank, GINEBRA, Maria-Pau, JIMÉNEZ-PIQUÉ, Emilio and MAS-MORUNO, Carlos, 2025. Tailoring Cell Behavior and Antibacterial Properties on Zirconia Biomaterials through Femtosecond Laser-Induced Micropatterns and Nanotopography. *ACS Applied Materials & Interfaces*. 10 May 2025. Vol. 17, no. 20, p. 29082–29099. DOI 10.1021/acsami.4c22433.

- LÓPEZ‐GÓMEZ, P., MEHWISH, N., MARCHÁN, V., GINEBRA, M. P. and MAS‐MORUNO, C., 2025. Tailoring Self‐Assembled Peptide Hydrogels with Antimicrobial or Cell Adhesive Properties for Tissue Engineering. *Chemistry – A European Journal*. 27 June 2025. Vol. 31, no. 40. DOI 10.1002/chem.202500975.

- LÓPEZ-GÓMEZ, Patricia, MEHWISH, Nabila, GINEBRA, Maria-Pau and MAS-MORUNO, Carlos, 2026. Bioactive and degradable PEG hydrogels: A multifunctional approach for tissue regeneration and antibacterial protection. *Biomaterials Advances*. March 2026. Vol. 180, p. 214553. DOI 10.1016/j.bioadv.2025.214553.

- NARANJO, David, TORRAS, Juan and GARCÍA-TORRES, Jose, 2025. Soft, Sustainable, and Sensitive: Biopolymer-Based Hydrogels as Recyclable Temperature

Sensors for Skin-Integrated Electronics. *ACS Applied Bio Materials*. 13 November 2025. Vol. 8, no. 12, p. 10890–10902. DOI 10.1021/acsabm.5c01607.

- VITERI, Angel, ESPANOL, Montserrat, GINEBRA, Maria-Pau and GARCÍA-TORRES, Jose, 2025. Tailoring drug release from skin-like chitosan-agarose biopolymer hydrogels containing Fe3O4 nanoparticles using magnetic fields. *Chemical Engineering Journal*. August 2025. Vol. 517, p. 164214. DOI 10.1016/j.cej.2025.164214.

- VITERI, Angel, LAUGÉ, Júlia, LUTZ, Lucas, GINEBRA, Maria-Pau and GARCÍA-TORRES, Jose, 2025. In situ synthesis of Fe3O4 nanocatalyst in chitosan-agarose hydrogel membranes for the sustainable and efficient degradation of organic compounds. *International Journal of Biological Macromolecules*. August 2025. Vol. 319, p. 145380. DOI 10.1016/j.ijbiomac.2025.145380.

- WANG, Xinru, GUILLEM-MARTI, Jordi, KUMAR, Saurav, LEE, David S., CABRERIZO-AGUADO, Daniel, WERTHER, Rachel, ALAMO, Kevin Alexander Estrada, ZHAO, Yan Ting, NGUYEN, Adam, KOPYEVA, Irina, HUANG, Buwei, LI, Jing, HAO, Yuxin, LI, Xinting, BRIZUELA-VELASCO, Aritza, MURRAY, Analisa, GERBEN, Stacey, ROY, Anindya, DEFOREST, Cole A., SPRINGER, Timothy, RUOHOLA-BAKER, Hannele, COOPER, Jonathan A., CAMPBELL, Melody G., MANERO, Jose Maria, GINEBRA, Maria-Pau and BAKER, David, 2025. De Novo Design of Integrin α5β1 Modulating Proteins to Enhance Biomaterial Properties. *Advanced Materials*. 9 June 2025. Vol. 37, no. 34. DOI 10.1002/adma.202500872.

- YUSUPOV, Maksudbek, TAMPIERI, Francesco, MATNAZAROVA, Shakhrizoda, MATYAKUBOV, Nosir, CANAL, Cristina and BOGAERTS, Annemie, 2025. Modeling Plasma-Induced Modifications in Alginate Biopolymers at the Atomic Scale. *The Journal of Physical Chemistry C*. 1 May 2025. Vol. 129, no. 19, p. 8927–8936. DOI 10.1021/acs.jpcc.5c01565.

BIOART - BIOsignal Analysis for Rehabilitation and Therapy

- BORRÀS, Marta, ROMERO, Sergio, SERNA, Leidy Y., ALONSO, Joan F., BACHILLER, Alejandro, MAÑANAS, Miguel A. and ROJAS, Mónica, 2025. Assessing Motor Cortical Activity: How Repetitions Impact Motor Execution and Imagery Analysis. *Psychophysiology*. June 2025. Vol. 62, no. 6. DOI 10.1111/psyp.70090.

CATMech - Centre Avançat de Tecnologies Mecàniques

- BERNAT-MASO, Ernest, MENDIZÁBAL, Virginia, MARTINEZ, Borja, MERCEDES, Luís and GIL, Lluís, 2025. Experimental assessment of shear connectors for sandwich hemp insulation panels with FRCM and 3D printed wythes. *Construction and Building Materials*. July 2025. Vol. 484, p. 141866. DOI 10.1016/j.conbuildmat.2025.141866.

- MARTÍNEZ, Borja, MERCEDES, Luis, BERNAT-MASO, Ernest and GIL, Lluís, 2025. Sustainable reinforcement strategy for green insulation panels: Evaluation of hemp mesh geometry and natural coatings. *Journal of Building Engineering*. October 2025. Vol. 112, p. 113803. DOI 10.1016/j.jobe.2025.113803.

- MERCEDES, Luis, BERNAT-MASO, Ernest and GIL, Lluis, 2025. Impact behaviour of concrete specimens coated with polyurea. *Structures*. February 2025. Vol. 72, p. 108261. DOI 10.1016/j.istruc.2025.108261.

- MERCEDES, Luis, VIELLA, Arnau, BERNAT-MASO, Ernest and GIL, Lluis, 2025. Durability and impact performance of concrete beam coated with polyurea. *Structures*. September 2025. Vol. 79, p. 109401. DOI 10.1016/j.istruc.2025.109401.

- NABHANI, Ahmad, TOUSI, Navid M., COMA, Martí, BUGEDA, Gabriel and BERGADÀ, Josep M., 2025. Large-scale horizontal axis wind turbine aerodynamic efficiency optimization using active flow control and synthetic jets. *Energy*. March 2025. Vol. 319, p. 134940. DOI 10.1016/j.energy.2025.134940.

- SAEMIAN, Mohammad and BERGADÀ, Josep M., 2025. Active flow control actuators on wind turbines; comprehensive review. *Ocean Engineering*. November 2025. Vol. 339, p. 121991. DOI 10.1016/j.oceaneng.2025.121991.

CCQM - Condensed, Complex and Quantum Matter Group

- ÁLVAREZ-GALERA, E., LARIA, D., MAZZANTI, F., BATET, L. and MARTÍ, J., 2025. Henry's constant of helium in liquid lead-lithium alloys. *Journal of Molecular Liquids*. August 2025. Vol. 432, p. 127719. DOI 10.1016/j.molliq.2025.127719.

- BENÍTEZ, Pol, CHEN, Siyu, JIANG, Ruoshi, LÓPEZ, Cibrán, TAMARIT, Josep-Lluís, ÍÑIGUEZ-GONZÁLEZ, Jorge, SAUCEDO, Edgardo, MONSERRAT, Bartomeu and CAZORLA, Claudio, 2025. Giant thermally induced band-gap renormalization in anharmonic silver chalcohalide antiperovskites. *Journal of Materials Chemistry C*. 2025. Vol. 13, no. 20, p. 10399–10412. DOI 10.1039/d5tc00863h.

- BENÍTEZ, Pol, JIANG, Ruoshi, CHEN, Siyu, LÓPEZ, Cibrán, TAMARIT, Josep-Lluís, SAUCEDO, Edgardo, MONSERRAT, Bartomeu and CAZORLA, Claudio, 2025. Band-Gap Tunability in Anharmonic Perovskite-Like Semiconductors Driven by Polar Electron–Phonon Coupling. *Journal of the American Chemical Society*. 30 September 2025. Vol. 147, no. 41, p. 37506–37520. DOI 10.1021/jacs.5c11968.

- GE, Yanhong, LU, Huixia and MARTÍ, Jordi, 2025. Influence of local ordering in the permeation of Temozolomide through the brain plasmatic membrane. *Biophysical Chemistry*. September 2025. Vol. 324, p. 107457. DOI 10.1016/j.bpc.2025.107457.

- LÓPEZ, Cibrán, KAVANAGH, Seán R., BENÍTEZ, Pol, SAUCEDO, Edgardo, WALSH, Aron, SCANLON, David O. and CAZORLA, Claudio, 2025. Chalcogen Vacancies Rule Charge Recombination in Pnictogen Chalcohalide Solar-Cell Absorbers. *ACS Energy Letters*. 30 June 2025. Vol. 10, no. 7, p. 3562–3569. DOI 10.1021/acsenergylett.5c01267.

- ORTIZ DE URBINA, Jordi and SESÉ, Gemma, 2025. Local structure in a supercooled dipolar molecular liquid. *Journal of Molecular Liquids*. December 2025. Vol. 440, p. 128919. DOI 10.1016/j.molliq.2025.128919.

CDIF - Centre de Diagnòstic Industrial i Fluidodinàmica

- XIA, Xiang, PRESAS, Alexandre, MORAGA, Greco, ZHOU, Lingjiu and WANG, Wei, 2025. Resonance observation of pump-turbine runners from the stationary frame: analytical-numerical model for the natural mode splitting of submerged rotating disc-blades-disc structures. *Mechanical Systems and Signal Processing*. October 2025. Vol. 239, p. 113292. DOI 10.1016/j.ymssp.2025.113292.

CELBIOTECH - Enginyeria Paperera

- CUSOLA, Oriol, VALLS, Cristina and RONCERO, M. Blanca, 2025. Water-efficient formation of barrier films via airborne nanocelluloses. *Surfaces and Interfaces*. May 2025. Vol. 65, p. 106512. DOI 10.1016/j.surfin.2025.106512.

CEMAD - Caracterització Elèctrica de Materials i Dispositius

- GUERRA, José D.S., DORNELAS, Ramon G.F., LOPEZ-BLANCO, Samuel, SUÑOL, Francesc, SILVA, Atair C., VENET, Michel and GARCIA, José E., 2026. Electrocaloric and energy storage properties of barium stannate titanate system: A multifunctional approach. *Materials Chemistry and Physics*. February 2026. Vol. 350, p. 131904. DOI 10.1016/j.matchemphys.2025.131904.

- LÓPEZ-BLANCO, Samuel, VENDRELL, Xavier and GARCÍA, Jose E., 2026. Self-catalytic flash sintering: A versatile approach for energy-efficient sintering and enhanced densification of ceramics. *Scripta Materialia*. January 2026. Vol. 271, p. 117027. DOI 10.1016/j.scriptamat.2025.117027.

CITCEA-UPC - Centre d'Innovació Tecnològica en Convertidors Estàtics i Accionaments

- ALICAN, Onur, MOUTEVELIS, Dionysios, ARÉVALO-SOLER, Josep, COLLADOS-RODRIGUEZ, Carlos, AMORÓS, Jaume, GOMIS-BELLMUNT, Oriol, CHEAH-MAÑE, Marc and PRIETO-ARAUJO, Eduardo, 2025. A Dynamic Similarity Index for Assessing Voltage Source Behaviour in Power Systems. *IEEE Transactions on Power Systems*. 2025. P. 1–14. DOI 10.1109/tpwrs.2025.3628350.

- ANADÓN MARTÍNEZ, Verónica, SUMPER, Andreas, SALDAÑA-GONZALEZ, Antonio E. and GADELHA, Vinicius, 2025. Planning fast-charging stations along highways using probability distribution functions and traffic data. *Sustainable Energy Technologies and Assessments*. October 2025. Vol. 82, p. 104547. DOI 10.1016/j.seta.2025.104547.

- BORREGO-ORPINELL, Gerard, HEREDERO-PERIS, Daniel, CAPÓ-LLITERAS, Macià and DÍAZ-GONZÁLEZ, Francisco, 2025. Low-cost and flexible test bench for HESS integrated with an EV model for electric traction applications. *Journal of Energy Storage*. October 2025. Vol. 132, p. 117676. DOI 10.1016/j.est.2025.117676.

- CARREÑO, Miguel, 2025. The RMS Model Cannot Capture PLL Small-Signal Instability. *IEEE Transactions on Power Systems*. September 2025. Vol. 40, no. 5, p. 4415–4418. DOI 10.1109/tpwrs.2025.3584261.

- COSTA-DILMÉ, Sergi, GARCÍA-MOTILLA, Pau, GOMIS-BELLMUNT, Oriol and PRIETO-ARAUJO, Eduardo, 2025. Energy storage sizing to mitigate clouds shading impact over solar photovoltaic off-grid pumping systems. *Journal of Energy Storage*. December 2025. Vol. 139, p. 118859. DOI 10.1016/j.est.2025.118859.

- DOMÍNGUEZ-HERNÀNDEZ, Martí, CHEAH-MAÑÉ, Marc, ARSENIJEVIC, Milan, MILETIC, Milos, GRIÑÓ, Robert and GOMIS-BELLMUNT, Oriol, 2025. AC and DC Fault-Ride-Through Energy-Based Control for Non-Isolated Multiport Modular Multilevel Converters. *IEEE Journal of Emerging and Selected Topics in Power Electronics*. 2025. P. 1–1. DOI 10.1109/jestpe.2025.3641704.

- E. SALDAÑA-GONZÁLEZ, Antonio, SUMPER, Andreas, ANADÓN-MARTÍNEZ, Verónica and ARAGÜÉS-PEÑALBA, Mònica, 2026. A machine learning approach for EVCS integration in distribution network based on optimal investment actions. *Electric Power Systems Research*. January 2026. Vol. 252, p. 112376. DOI 10.1016/j.epsr.2025.112376.

- EL MARIACHET, J., HUSAR, A., RODA, V., PRIETO-ARAUJO, E. and MONTESINOS, D., 2025. Novel hydrogen emissions intensity index for solid oxide electrolysis using external thermal energy sources, considering thermodynamic performance of the electrolyser. *International Journal of Hydrogen Energy*. July 2025. Vol. 145, p. 1171–1186. DOI 10.1016/j.ijhydene.2025.05.399.

- MANAFI, Ehsan, DOMENECH, Bruno, TAVAKKOLI-MOGHADDAM, Reza and RANABOLDO, Matteo, 2025. A self-learning whale optimization algorithm based on reinforcement learning for a dual-resource flexible job shop scheduling problem. *Applied Soft Computing*. August 2025. Vol. 180, p. 113436. DOI 10.1016/j.asoc.2025.113436.

- RODRIGUEZ-BERNUZ, Joan-Marc, GADELHA, Vinicius, BULLICH-MASSAGUÉ, Eduard and SUMPER, Andreas, 2025. Droop-based power routers for enhanced resilience in networked grids. *Electric Power Systems Research*. June 2025. Vol. 243, p. 111475. DOI 10.1016/j.epsr.2025.111475.

- TIFERES, Rodrigo Rozenblit, ALBERNAZ LACERDA, Vinícius, CHEAH-MANE, Marc and GOMIS-BELLMUNT, Oriol, 2026. A Review on Condition Monitoring for XLPE-Insulated Subsea DC Dynamic Export Cables. *IEEE Transactions on Dielectrics and Electrical Insulation*. February 2026. Vol. 33, no. 1, p. 413–428. DOI 10.1109/tdei.2025.3619448.

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

- MO, Yangyang, RODRIGUEZ-DONO, Alfonso and OLIVELLA, Sebastia, 2025. Three-dimensional coupled hydro-mechanical modeling of gas injection. *Computers and Geotechnics*. December 2025. Vol. 188, p. 107575. DOI 10.1016/j.compgeo.2025.107575.

- PLAZA-HERRERA, Daniel and MERCADÉ-ALOY, Josep, 2025. Inclusive 15-minute cities: An age-sensitive assessment of active accessibility in the metropolitan area of Barcelona. *Cities*. October 2025. Vol. 165, p. 106091. DOI 10.1016/j.cities.2025.106091.

CNDS - Xarxes de Computadors i Sistemes Distribuïts

- FERRER-CID, Pau, BARCELO-ORDINAS, Jose M. and GARCIA-VIDAL, Jorge, 2025. A review of graph-powered data quality applications for IoT monitoring sensor networks. *Journal of Network and Computer Applications*. April 2025. Vol. 236, p. 104116. DOI 10.1016/j.jnca.2025.104116.

CoDAlab - Control, Dades i Intel·ligència Artificial

- ENCALADA-DÁVILA, Ángel, VIDAL, Yolanda and TUTIVÉN, Christian, 2025. Strain virtual sensor for offshore wind turbine jacket supports: A time series transformer approach validated with Alpha Ventus wind farm data. *Mechanical Systems and Signal Processing*. May 2025. Vol. 231, p. 112653. DOI 10.1016/j.ymssp.2025.112653.

- WANG, Shun, VIDAL, Yolanda and POZO, Francesc, 2025. An unsupervised approach to early fault detection and performance degradation assessment in bearings. *Advanced Engineering Informatics*. November 2025. Vol. 68, p. 103620. DOI 10.1016/j.aei.2025.103620.

- WANG, Shun, VIDAL, Yolanda and POZO, Francesc, 2026. Recent advances in wind turbine condition monitoring using SCADA data: A state-of-the-art review. *Reliability Engineering & System Safety*. March 2026. Vol. 267, p. 111838. DOI 10.1016/j.ress.2025.111838.

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

- HELDRING, Alex, UBEDA, Eduard and RIUS, Juan M., 2026. Fast Direct High-Frequency MoM Solver Using Butterfly Algebra. *IEEE Transactions on Antennas and Propagation*. January 2026. Vol. 74, no. 1, p. 703–712. DOI 10.1109/tap.2025.3627867.

CRAAX - Centre de Recerca d'Arquitectures Avançades de Xarxes

- BELLMUNT, Andrea, OTERO, Beatriz, RODRÍGUEZ, Eva and MASIP-BRUIN, Xavier, 2026. Federated transfer learning-based intrusion detection system in 5G networks. *Expert Systems with Applications*. April 2026. Vol. 305, p. 130868. DOI 10.1016/j.eswa.2025.130868.

- CALVIÑO, Beatriz Otero, RODRIGUEZ, Eva, COSTA, Juan José and ORIOL, Mercedes, 2025. Enhancing cybersecurity in railways: Machine learning approaches

for attack detection. *International Journal of Critical Infrastructure Protection*. September 2025. Vol. 50, p. 100788. DOI 10.1016/j.ijcip.2025.100788.

- QURESHI, Abdul Rehman, ASENSIO, Adrián, IMRAN, Muhammad, GARCIA, Jordi and MASIP-BRUIN, Xavi, 2025. A survey on security enhancing Digital Twins: Models, applications and tools. *Computer Communications*. June 2025. Vol. 238, p. 108158. DOI 10.1016/j.comcom.2025.108158.

- SAJJAD, Waseem, FARRERAS, Montse, GARCIA, Jordi and MASIP-BRUIN, Xavi, 2026. Service placement in the continuum: A systematic literature review. *Computer Communications*. February 2026. Vol. 246, p. 108370. DOI 10.1016/j.comcom.2025.108370.

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

- BAISHAKHY, Smita Dash, BABA, Yasmina, MISSAOUI, Sameh and KALLAS, Zein, 2025. How socio-psychological drivers prompt the adoption of nature-based solutions: Evidence from Mediterranean dryland ecosystems. *Environment, Development and Sustainability*. 6 September 2025. DOI 10.1007/s10668-025-06588-4.

- DAZA, Sergio Urioste, TAGHOUTI, Ibtissem and ROIG, José María Gil, 2025. Plant Variety Registration in Transition: Opportunities for Innovation and Reform in The European Union. *EuroChoices*. 5 December 2025. DOI 10.1111/1746-692x.70007.

- LARVOE, Noah, MUSTAPA, Muhammad Adzran Che, DE HERRALDE, Felicidad and KALLAS, Zein, 2026. Predicting EU orchard farmers' adoption intentions for pesticide-reducing innovations using an extended theory of planned behavior. *Crop Protection*. February 2026. Vol. 200, p. 107460. DOI 10.1016/j.cropro.2025.107460.

- MEHABA, Wafa and GIL, José María, 2025. Assessing the Impact of Promotions on Consumer Purchasing Behavior During Crises. *Agribusiness*. 4 December 2025. DOI 10.1002/agr.70057.

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

- ASURZA, Flavio Alexander, ABANCÓ, Clàudia, HÜRLIMANN, Marcel and MEDINA, Vicente, 2025. Calibration scenarios for physically based rainfall-induced landslide modelling at regional scale. Application to Vall d'Aran (Central Pyrenees, Spain). *Bulletin of Engineering Geology and the Environment*. 6 December 2025. Vol. 85, no. 1. DOI 10.1007/s10064-025-04697-y.

CROMAI - Computing Resources Orchestration and Management for AI

- GUITART, Jordi, 2025. Embedded scaffolding for teaching and assessing inquiry-based hands-on laboratory on distributed systems. *Journal of Parallel and Distributed Computing*. July 2025. Vol. 201, p. 105082. DOI 10.1016/j.jpdc.2025.105082.

- MERONI, Roberto and GUITART, Jordi, 2026. Scalable energy-aware VM allocation on cloud data centers through mathematical programming models. *Future Generation Computer Systems*. January 2026. Vol. 174, p. 108011. DOI 10.1016/j.future.2025.108011.

CSC - Components and Systems for Communications Research Group

- LI, Wantao, MONTORO, Gabriel and GILABERT, Pere L., 2025. Adaptive Digital Predistortion for User Equipment Power Amplifiers Under Dynamic Frequency, Bandwidth, and VSWR Variations. *IEEE Transactions on Microwave Theory and Techniques*. October 2025. Vol. 73, no. 10, p. 8175–8187. DOI 10.1109/tmtt.2025.3563159.

DCCG - Discrete, Combinational, and Computational Geometry

- ALEGRÍA, Carlos, DALLANT, Justin, PÉREZ-LANTERO, Pablo and SEARA, Carlos, 2025. Time-optimal computation of the rectilinear convex hull with arbitrary orientation of sets of segments and circles. *Journal of Global Optimization*. 26 March 2025. Vol. 92, no. 1, p. 227–251. DOI 10.1007/s10898-025-01482-9.

- MORA, Mercè and TEY, Joaquín, 2025. Antimagic and Product Antimagic Graphs with Pendant Edges. *Mediterranean Journal of Mathematics*. 5 December 2025. Vol. 23, no. 1. DOI 10.1007/s00009-025-03020-z.

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

- WANG, B., AYATS, R., DEGUCHI, K., MESEGUER, A. and MELLIBOVSKY, F., 2025a. Mathematically established chaos and forecast of statistics with recurrent patterns in Taylor–Couette flow. *Journal of Fluid Mechanics*. 13 May 2025. Vol. 1011. DOI 10.1017/jfm.2025.151.

- WANG, B., AYATS, R., DEGUCHI, K., MESEGUER, A. and MELLIBOVSKY, F., 2025b. Feigenbaum universality in subcritical Taylor–Couette flow. *Journal of Fluid Mechanics*. 10 May 2025. Vol. 1010. DOI 10.1017/jfm.2025.278.

DOPS - Disseny i Optimització de Processos i Serveis

- GIL-FIGUEROLA, P., JUANPERA, M., SOLER-NOGUERA, A., RAMALHINHO, H., FERRER-MARTÍ, L. and PASTOR, R., 2025. Optimising food baskets in a local food pantry: The case study of El Rebost. *Computers & Industrial Engineering*. May 2025. Vol. 203, p. 111053. DOI 10.1016/j.cie.2025.111053.

- VIDES-PRADO, A., MORA-FLÓREZ, J., DOMENECH, B., JUANPERA, M., PARAJELES, M.J., BASTANTE, E. and FERRER-MARTÍ, L., 2025. A redesign method for rural electrification projects, case study in Yutaho, Colombia. *Sustainable Energy Technologies and Assessments*. October 2025. Vol. 82, p. 104532. DOI 10.1016/j.seta.2025.104532.

eb-POLICOM - Polímers i Composits Ecològics i Biodegradables

- CANDAU, Nicolas, OGUZ, Oguzhan, KURTULMUS, Gizem, YILGÖR, Emel, MENCELOGLU, Yusuf Z. and YILGÖR, Iskender, 2025. Contribution of amorphous soft segments orientation and their strain induced crystallization to the elastocaloric effect of thermoplastic polyurethaneurea elastomers. *Polymer*. December 2025. Vol. 340, p. 129225. DOI 10.1016/j.polymer.2025.129225.

- MAKHARADZE, Davit, KANTARIA, Temur, KANTARIA, Tengiz, KUPATADZE, Nino, ZAVRADASHVILI, Nino, KIRTADZE, Lika, KATSARAVA, Ramaz, PUIGGALI, Jordi and DEL VALLE, Luis J., 2025. Pseudoprotein-poly(ethylene glycol) multi-purpose graft copolymers via Michael addition reaction. *European Polymer Journal*. August 2025. Vol. 236, p. 114103. DOI 10.1016/j.eurpolymj.2025.114103.

- ULIANA, Samuele, CANDAU, Nicolas, ARIOLI, Matteo, FRANCO, Lourdes and MASPOCH, Maria Lluisa, 2025. Deformation and Failure Mechanisms of Natural/Waste Rubber Blends Under Mechanical and Thermal Cycles: A Synchrotron In Situ Study. *Macromolecular Rapid Communications*. 14 August 2025. Vol. 46, no. 21. DOI 10.1002/marc.202500480.

ENMA - Enginyeria del Medi Ambient

- CALVO-SCHWARZWALDER, M., MYERS, T.G., CABRERA-CODONY, A. and VALVERDE, A., 2025. An analytical model for column adsorption with two competing contaminants. *International Journal of Heat and Mass Transfer*. August 2025. Vol. 245, p. 127004. DOI 10.1016/j.ijheatmasstransfer.2025.127004.

- CANALS CASALS, Lluc, ZHU, Jing and OCHOA, Luis F., 2025. The potential of V2G considering EV charging behaviors, battery lifespan, and distribution networks.

Sustainable Energy, Grids and Networks. June 2025. Vol. 42, p. 101706. DOI 10.1016/j.segan.2025.101706.

- MARTÍNEZ, María Eugenia, RESTOVIC, Franko, URREGO, Freddy, FUENTES, Derie and RAMOS, Carlos, 2025. Evaluation of enzymatic pretreatment strategies to enhance anaerobic digestion of tomato waste. *Biofuels, Bioproducts and Biorefining*. 10 April 2025. Vol. 19, no. 6, p. 1677–1689. DOI 10.1002/bbb.2767.

- PINTO, Edwin S. and CANALS CASALS, Lluc, 2026. Resilience of polygeneration systems for residential buildings in Spain. *Energy and Buildings*. February 2026. Vol. 352, p. 116750. DOI 10.1016/j.enbuild.2025.116750.

EPIC - Energy Processing and Integrated Circuits

- CUADRAS, Àngel, OVEJAS, Victòria J. and SERRANO, Mònica, 2025. The entropy cost of the use of houses in ecological economy. *Journal of Cleaner Production*. November 2025. Vol. 533, p. 146991. DOI 10.1016/j.jclepro.2025.146991.

- VAQUERO-GALLARDO, Noelia, MILLÁN-BLASCO, Oliver and MARTÍNEZ-GARCÍA, Herminio, 2025. Real-time detection system for preventing tissue damage in cryotherapy through temperature and bioimpedance monitoring. *Measurement*. October 2025. Vol. 254, p. 117898. DOI 10.1016/j.measurement.2025.117898.

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

- CARTIEL, Oriol, MESAS, Juan-José, MONJO, Lluís and SAINZ, Luis, 2026. Computational time efficiency analysis for resonance studies in transmission grids and microgrid clusters. *Mathematics and Computers in Simulation*. May 2026. Vol. 243, p. 486–498. DOI 10.1016/j.matcom.2025.12.009.

- CARTIEL, Oriol, SAINZ, Luis, MESAS, Juan José and MONJO, Lluís, 2025. A Damping Margin Indicator for Compensator Design by the Positive-Mode-Damping Stability Criterion. *IEEE Transactions on Power Systems*. July 2025. Vol. 40, no. 4, p. 3173–3184. DOI 10.1109/tpwrs.2025.3526554.

- SIMONCELLI, Alejandro, BUGLIONI, Luciano, MARTÍNEZ KRAHMER, Daniel and SÁNCHEZ EGEA, Antonio, 2025. Effects of machine compliance on forming accuracy and forces in SPIF of AISI 430. *The International Journal of Advanced Manufacturing Technology*. 7 June 2025. DOI 10.1007/s00170-025-15854-8.

- SPANU, Florencia, CANTERO, Mariano, LORUSSO, Hernán, SIMONCELLI, Alejandro, MIGLIORINO, Diego, MARTÍNEZ KRAHMER, Daniel and SÁNCHEZ EGEA, Antonio J., 2025. Wire cutting as a viable substitute for machining standardized V-notches for Charpy specimens. *The International Journal of Advanced Manufacturing Technology*. 28 February 2025. DOI 10.1007/s00170-025-15293-5.

GAPCOMB - Geometric, Algebraic and Probabilistic Combinatorics

- BASTARDAS, Gemma and VENTURA, Enric, 2025. Computing H-equations with 2-by-2 integral matrices. *Linear Algebra and its Applications*. November 2025. Vol. 724, p. 218–241. DOI 10.1016/j.laa.2025.06.007.

- PERARNAU, Guillem and SERRA, Oriol, 2025. The Lonely Runner Conjecture turns 60. *Computer Science Review*. November 2025. Vol. 58, p. 100798. DOI 10.1016/j.cosrev.2025.100798.

GBMI - Grup de Biotecnologia Molecular i Industrial

- BLAIR, Jeniffer, RATHEE, Garima, PUERTAS-SEGURA, Antonio, PÉREZ, Leonardo Martín and TZANOV, Tzanko, 2025. Advanced water treatment with antimicrobial silver-lignin nanoparticles sonochemically-grafted on cork granulates in activated carbon packed-bed columns. *Environmental Research*. August 2025. Vol. 279, p. 121783. DOI 10.1016/j.envres.2025.121783.

- FERNANDEZ-GONZALEZ, Pol, JENCZ, Sylwia, SMITH, Steven O., REEVES, Philip J. and GARRIGA, Pere, 2025. Molecular and functional characterization of the retinitis pigmentosa G90V mutation in a conformationally stabilized rhodopsin background. *International Journal of Biological Macromolecules*. November 2025. Vol. 330, p. 148078. DOI 10.1016/j.ijbiomac.2025.148078.

- PUERTAS-SEGURA, Antonio, LAGANÁ, Antonio, RATHEE, Garima, SAVAGE, Paul, TODOROVA, Katerina, DIMITROV, Petar, PASHKULEVA, Iva, REIS, Rui Luís, CIARDELLI, Gianluca and TZANOV, Tzanko, 2025. Ceragenin Nanogel Coating Prevents Biofilms Formation on Urinary Catheters. *ACS Applied Materials & Interfaces*. 22 July 2025. DOI 10.1021/acsami.5c13979.

- PUERTAS-SEGURA, Antonio, PÉREZ, Leonardo Martín, SAVAGE, Paul, IVANOVA, Kristina, CIARDELLI, Gianluca and TZANOV, Tzanko, 2025. Bottom-up sono-enzymatic approach to build antimicrobial and antifouling nano-enabled

coatings on urinary catheters. *Nanoscale Advances*. 2025. Vol. 7, no. 18, p. 5658–5669. DOI 10.1039/d5na00577a.

GCO - Grup de Comunicacions Òptiques

- VELASCO, Luis, GRAZIADEI, Gianluca, BARZEGAR, Sima and RUIZ, Marc, 2025. Provisioning of Time-Sensitive and Non-Time-Sensitive Flows With Assured Performance. *IEEE Transactions on Network and Service Management*. April 2025. Vol. 22, no. 2, p. 1484–1499. DOI 10.1109/tnsm.2025.3539697.

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

- ASURZA, Flavio Alexander, HÜRLIMANN, Marcel and MEDINA, Vicente, 2026. Coupling hydrological, geotechnical and machine learning models to enhance landslide prediction for an early warning system: application to Upper Garonne River Basin, Pyrenees, Spain. *Landslides*. 15 January 2026. Vol. 23, no. 4, p. 913–931. DOI 10.1007/s10346-025-02685-7.

GEOMVAP - Geometria de Varietats i Aplicacions

- CARDONA, Robert, MIRANDA, Eva and PERALTA-SALAS, Daniel, 2025. Towards a Fluid Computer. *Foundations of Computational Mathematics*. 13 March 2025. Vol. 25, no. 6, p. 1921–1937. DOI 10.1007/s10208-025-09699-6.

- CHIDAMBARAM, Nitin Kumar, GARCIA-FAILDE, Elba and GIACCHETTO, Alessandro, 2025. Relations on overline{M_g,n} and the negative r-spin Witten conjecture. *Inventiones mathematicae*. 4 August 2025. Vol. 241, no. 3, p. 929–997. DOI 10.1007/s00222-025-01351-y.

GGMM - Grup de Geotècnia i Mecànica de Materials

- CRUSAT, L., CAROL, I., GAROLERA, D., TRINCHERO, P., IDIART, A., CALPE, M. and MAS-IVARS, D., 2025. Numerical modeling of rock spalling around a tunnel using visco-plastic interface elements and a rock removal strategy. *International Journal of Rock Mechanics and Mining Sciences*. July 2025. Vol. 191, p. 106096. DOI 10.1016/j.ijrmms.2025.106096.

- DI CARLUCCIO, Gaia, AVILES, Luis A., PINYOL, Núria M. and ALONSO, Eduardo E., 2025. Modelling Wetting Collapse, Failure and Deposition of an Unsaturated Slope With Material Point Method. *International Journal for Numerical and Analytical Methods in Geomechanics*. 24 September 2025. Vol. 49, no. 18, p. 4526–4551. DOI 10.1002/nag.70075.

- ESCANELLAS, Andreu, CÁMARA, Eduardo, LIAUDAT, Joaquín and CAROL, Ignacio, 2025. Experimental study of the time-dependent behaviour of fracture propagation in salt rock. *Geomechanics for Energy and the Environment*. September 2025. Vol. 43, p. 100687. DOI 10.1016/j.gete.2025.100687.

- ZENG, Hao, GONZALEZ-BLANCO, Laura and ROMERO, Enrique, 2025. Particle size evolution of granular bentonite in hydro-mechanical paths. *Applied Clay Science*. December 2025. Vol. 277, p. 107975. DOI 10.1016/j.clay.2025.107975.

GHS - Grup d'Hidrologia Subterrània

- STARNONI, M., 2025. Multiphase Flow and Coalescence Filtration in Fibrous Filters: A Review of Numerical and Machine Learning Approaches. *Industrial & Engineering Chemistry Research*. 13 November 2025. Vol. 64, no. 47, p. 22515–22539. DOI 10.1021/acs.iecr.5c03439.

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

- ARIAS-CÁRDENAS, Brenda, LACASTA, Ana Maria, HAURIE, Laia, DUARTE, Sónia, DUARTE, Marta and FARIA, Paulina, 2025. Biological colonisation in bio-materials and composites with different bio-binder combinations. *Construction and Building Materials*. September 2025. Vol. 492, p. 142980. DOI 10.1016/j.conbuildmat.2025.142980.

GiES - Geofísica i Enginyeria Sísmica

- BELLA, F.Prats and GONZALEZ-DRIGO, R., 2025. 2 DOF model for non-linear vertical seismic analysis of a loaded overhead crane. *Nuclear Engineering and Design*. September 2025. Vol. 441, p. 114179. DOI 10.1016/j.nucengdes.2025.114179.

- BOBADILLA, Héctor Guerrero, BAÑUELOS, Rodrigo E. Alva, ENRIQUEZ, Luis Iván Velasco, GILMORE, Amador Terán, ESPINOZA, Danny Arroyo, ORTIZ, Javer Humberto Vargas and HERNÁNDEZ, Edgar Tapia, 2025. Cumulative ductility and fatigue life of Buckling-Restrained Braces under severe seismic loading conditions: An experimental study. *Soil Dynamics and Earthquake Engineering*. December 2025. Vol. 199, p. 109700. DOI 10.1016/j.soildyn.2025.109700.

- GARCÍA-VILANA, S. and SÁNCHEZ-MOLINA, D., 2025. Statistical mechanics of bone damage: a constitutive model. *European Biophysics Journal*. May 2025. Vol. 54, no. 3–4, p. 185–200. DOI 10.1007/s00249-025-01749-9.

- GARCÍA-VILANA, Silvia, ADROVER-MONSERRAT, Bárbara, SÁNCHEZ-MOLINA, David, LLUMÀ, Jordi, JEREZ-MESA, Ramón, TRAVIESO-RODRÍGUEZ, J. A. and MARTÍNEZ-GONZÁLEZ, Eva, 2025. Using acoustic emission to assess stiffness loss in thermoplastics processed through additive manufacturing. *Progress in Additive Manufacturing*. 11 April 2025. Vol. 10, no. 10, p. 8053–8063. DOI 10.1007/s40964-025-01092-7.

- PEREZ-GRACIA, Vega, SOLLA, Mercedes, FONTUL, Simona, CASELLES, Oriol, BALADO, Jesús, ALVA, Rodrigo, RODRÍGUEZ-SOMOZA, Juan Luis and GONZÁLEZ-DRIGO, Ramón, 2025. Combining GPR, Passive Seismic, and Load Testing With Computational Models in the Assessment of Historical Bridges: The Case Study of the Comboa Bridge. *Structural Control and Health Monitoring*. January 2025. Vol. 2025, no. 1. DOI 10.1155/stc/5309473.

GNOM - Grup d'Optimització Numèrica i Modelització

- TOBAR NICOLAU, Adrián, CASTRO, Jordi and GENTILE, Claudio, 2025. A new mathematical optimization-based method for the m-invariance problem. *Soft Computing*. January 2025. Vol. 29, no. 2, p. 861–873. DOI 10.1007/s00500-025-10514-1.

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

- BALLESTEROS-SÁNCHEZ, Antonio, GISPETS, Joan and TORRENTS, Aurora, 2025. Patient considerations versus actual reasons for contact lens cessation: Insights from a survey-based study. *Contact Lens and Anterior Eye*. October 2025. Vol. 48, no. 5, p. 102421. DOI 10.1016/j.clae.2025.102421.

- CARDONA, Genis and VEGA, Carla, 2026. Reliability and readability of online patient information for contact lens wearers. *Contact Lens and Anterior Eye*. February 2026. Vol. 49, no. 1, p. 102513. DOI 10.1016/j.clae.2025.102513.

- RAMÍREZ, Natalia, RALLÓ, Miquel and MILLAN, Maria S., 2025. Bridging local and global tortuosity of retinal vessels: Objective testing of index performance. *PLOS One*. 7 August 2025. Vol. 20, no. 8, p. e0329379. DOI 10.1371/journal.pone.0329379.

GRBIO - Grup de Recerca en Bioestadística i Bioinformàtica

- CORTÉS-MARTÍNEZ, Jordi, BOFILL-ROIG, Marta and GÓMEZ-MELIS, Guadalupe, 2025. Design of Trials with Composite Endpoints with the R Package

CompAREdesign. *Statistics in Biosciences*. 15 May 2025. DOI 10.1007/s12561-025-09488-3.

- PIULACHS, Xavier, LANGOHR, Klaus, BESALÚ, Mireia, PALLARÈS, Natàlia, CARRATALÀ, Jordi, TEBÉ, Cristian and MELIS, Guadalupe Gómez, 2025. Semi‐Markov Multistate Modeling Approaches for Multicohort Event History Data. *Biometrical Journal*. 8 May 2025. Vol. 67, no. 3. DOI 10.1002/bimj.70051.

GRCM - Grup de Recerca en Comunicacions Mòbils

- PÉREZ-ROMERO, Jordi, TUNA, Ömer Faruk, KOLAWOLE, Oluwatayo, SALLENT, Oriol, VILÀ, Irene, BARTZOUDIS, Nikolaos, KARTSAKLI, Elli, PUJOL ROIG, Joan S., SERRANO, Maria A. and GÜLEN, Utku, 2025. On the Deployment of AI-Driven Solutions in Edge-Enabled Beyond 5G Scenarios. *IEEE Communications Standards Magazine*. 2025. P. 1–9. DOI 10.1109/mcomstd.2025.3640682.

GReCEF - Grup de Recerca en Cipència i Enginyeria de Fluids

- AGUARELES, Maria and FONT, Francesc, 2026. Assessment of averaged 1D models for column adsorption with 3D computational experiments. *Physica D: Nonlinear Phenomena*. February 2026. Vol. 486, p. 135064. DOI 10.1016/j.physd.2025.135064.

- BAREA, Guillem and JOFRE, Lluís, 2024. Proper orthogonal decomposition of wall-bounded high-pressure transcritical fluids. *Physics of Fluids*. 1 October 2024. Vol. 36, no. 10. DOI 10.1063/5.0234212.

- BERNADES, Marc, CAPUANO, Francesco and JOFRE, Lluís, 2025. Linear stability analysis of differentially heated wall-bounded high-pressure transcritical fluids. *Journal of Fluid Mechanics*. 3 November 2025. Vol. 1022. DOI 10.1017/jfm.2025.10801.

- BERNADES, Marc, DUCHAINE, Florent, CAPUANO, Francesco and JOFRE, Lluís, 2025. A posteriori analysis of non-dissipative large-eddy simulation of wall-bounded transcritical turbulent flow. *Computers & Fluids*. October 2025. Vol. 301, p. 106808. DOI 10.1016/j.compfluid.2025.106808.

- LI, Zhen, ABDELLATIF, Ahmed, YANG, Rui, JOFRE, Lluís and CAPUANO, Francesco, 2025. Navier–Stokes characteristic boundary conditions for real fluids with kinetic-energy- and pressure-equilibrium-preserving schemes. *Journal of*

Computational Physics. August 2025. Vol. 535, p. 114035. DOI 10.1016/j.jcp.2025.114035.

- MONTEIRO, Carlos and JOFRE, Lluís, 2024. Resolution standards for direct numerical simulation of wall turbulence in high-pressure transcritical fluids. *Physics of Fluids*. 1 December 2024. Vol. 36, no. 12. DOI 10.1063/5.0244472.

- MORENO-PULIDO, Cristian, OLWANDE, Rachael, MYERS, Tim and FONT, Francesc, 2026. Approximate solutions to the shrinking core model and their interpretation. *Applied Mathematical Modelling*. June 2026. Vol. 154, p. 116715. DOI 10.1016/j.apm.2025.116715.

GREO - Grup de Recerca en Enginyeria Òptica

- ARGILÉS, Marc and MOLINERO, Xavier, 2025. Mathematical models to describe fixation disparity curves. *Ophthalmic and Physiological Optics*. 16 October 2025. Vol. 45, no. 7, p. 1642–1652. DOI 10.1111/opo.70025.

- ARGILÉS, Marc, ROVIRA-GAY, Cristina, PÉREZ-MAÑÀ, Luis, SUNYER-GRAU, Bernat and GANTZ, Liat, 2025. Performance of teenaged action video game players on the Developmental Eye Movement and King-Devick tests. *PLOS One*. 18 June 2025. Vol. 20, no. 6, p. e0324862. DOI 10.1371/journal.pone.0324862.

- REY-BARROSO, Laura, ROLDÁN, Mònica, FRÍAS, Marcos, BURGOS-FERNÁNDEZ, Francisco J., ISOLA, Ignacio, LLOBET, Anna Ruiz, SARRATE, Edurne and VILASECA, Meritxell, 2025. Optimized protocol for intracellular labeling of red blood cells with anti-hemoglobin F for confocal microscopy analysis. *Micron*. December 2025. Vol. 199, p. 103913. DOI 10.1016/j.micron.2025.103913.

- ROVIRA-GAY, Cristina, ARGILES, Marc, MESTRE, Clara, MASDEMONT-ISERN, Marta and PUJOL, Jaume, 2025. Objective evaluation of fusional vergence after a vision therapy protocol in typical binocular vision. *Ophthalmic and Physiological Optics*. 24 May 2025. Vol. 45, no. 5, p. 1173–1185. DOI 10.1111/opo.13528.

GRIC - Grup de Recerca i Innovació de la Construcció

- CEBOLLA-ALEMANY, Joaquim, MACARULLA MARTÍ, Marcel, VIANA, Mar, GASSO-DOMINGO, Santiago, MORENO-MARTÍN, Verónica, BOU, David and SAN FÉLIX, Vicenta, 2025a. Estimation of nanoparticle emissions in indoor industrial

environments using a grey-box modeling approach. *Building and Environment*. August 2025. Vol. 281, p. 113169. DOI 10.1016/j.buildenv.2025.113169.

- CEBOLLA-ALEMANY, Joaquim, MACARULLA MARTÍ, Marcel, VIANA, Mar, GASSO-DOMINGO, Santiago, MORENO-MARTÍN, Verónica, BOU, David and SAN FÉLIX, Vicenta, 2025b. Multidomain model for sustainable industrial energy and air quality management. *Journal of Cleaner Production*. July 2025. Vol. 517, p. 145884. DOI 10.1016/j.jclepro.2025.145884.

- FOROUTANFAR, Foad, TEJEDOR, Blanca and CASALS, Miquel, 2025. Rethinking BIPVs: Evaluating the thermal trade-offs of building-integrated photovoltaics. *Energy and Buildings*. December 2025. Vol. 348, p. 116451. DOI 10.1016/j.enbuild.2025.116451.

- LÓPEZ-CARREÑO, Rubén-Daniel, MACARULLA, Marcel, GASSÓ-DOMINGO, Santiago, TEJEDOR, Blanca and PARDO-BOSCH, Francesc, 2026. A grey-box temperature model for digital twins of building-integrated rooftop greenhouses. *Building and Environment*. February 2026. Vol. 289, p. 114036. DOI 10.1016/j.buildenv.2025.114036.

- MEDINA-MUSELLAS, Juan José, CARRASCO-ASTUDILLO, Nicolás, GASPAR, Kàtia, GANGOLELLS, Marta and CASALS, Miquel, 2025. An automated approach for modelling national-scale reference buildings: A case study on the potential of rooftop-based interventions in Spain. *Journal of Building Engineering*. November 2025. Vol. 113, p. 114014. DOI 10.1016/j.jobe.2025.114014.

- MIAO, Sen, GANGOLELLS, Marta and TEJEDOR, Blanca, 2025. NVAPF: An adaptive particle filter algorithm for CO2-based natural ventilation rate estimation with high temporal resolution and stability. *Building and Environment*. September 2025. Vol. 283, p. 113432. DOI 10.1016/j.buildenv.2025.113432.

- TUGORES, J., MACARULLA, M. and GANGOLELLS, M., 2025. Hybrid grey box modelling of indoor air quality and thermal dynamics in indoor environments. *Energy and Buildings*. May 2025. Vol. 334, p. 115528. DOI 10.1016/j.enbuild.2025.115528.

GRO - Grup de Recerca en Organització

- ALVAREZ-VARGAS, Cecilia, CAPELLERAS, Joan-Lluís and MARTIN-SANCHEZ, Victor, 2025. Entrepreneurial Experience and Growth Aspirations: The Moderating Role of National Research & Development Expenditure. *R&D*

Management. 29 September 2025. Vol. 56, no. 2, p. 278–306. DOI 10.1111/radm.70019.

GRU - Grup de Recerca Urbanisme

- AQUILUÉ JUNYENT, Inés, 2026. The loss of urban form as a communicative system: A morphogenetic critique of the recent reconstruction of Beirut. *Cities*. February 2026. Vol. 169, p. 106535. DOI 10.1016/j.cities.2025.106535.

- D'AVILA, Rodrigo, PESOA, Melisa, GARCÍA, Gonzalo and ROCAMONDE, Javier, 2025. Land consumption and urbanization in rural areas. Understanding the dynamics of land take and demographic changes in rural municipalities in Catalonia, Spain. *Habitat International*. August 2025. Vol. 162, p. 103443. DOI 10.1016/j.habitatint.2025.103443.

HorPTA - Horticultura: producció, transformació i aprofitament

- CASALS, Joan and CARRIÓ, Mar, 2026. Supermarkets as museums of plant diversity: characterizing the food basket as a project for gastronomy students to learn about crop diversity and water footprint. *International Journal of Gastronomy and Food Science*. March 2026. Vol. 43, p. 101401. DOI 10.1016/j.ijgfs.2025.101401.

IA-DAIS - Intelligent Algorithms, Data Analytics & Internet Systems

- GHODRATNAMA, Ali, GONZALEZ-NEIRA, Eliana Maria, HATAMI, Sara and TAVAKKOLI-MOGHADDAM, Reza, 2025. Two Multi-objective Optimization Approaches for Solving a Fuzzy Bi-objective Distributed Hybrid Flow Shop Scheduling Problem Under Uncertainty. *Arabian Journal for Science and Engineering*. 28 May 2025. DOI 10.1007/s13369-025-10238-2.

ICARUS - Intelligent Communications and Avionics for Robust Unmanned Aerial Systems

- DOŽIĆ, Slavica, KULJANIN, Jovana, BABIĆ, Danica, KALIĆ, Milica and PONS-PRATS, Jordi, 2026. Electric vertical take-off and landing aircraft selection for ultra-short-haul routes: fuzzy AHP approach. *Journal of Air Transport Management*. March 2026. Vol. 131, p. 102909. DOI 10.1016/j.jairtraman.2025.102909.

- MELGOSA, Marc, VIDOSAVLJEVIC, Andrija and PRATS, Xavier, 2025. Hybrid method for holistic air traffic demand and capacity balancing optimisation based on sector complexity. *Transportation Research Part C: Emerging Technologies*. November 2025. Vol. 180, p. 105306. DOI 10.1016/j.trc.2025.105306.

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

- ANGERRI, Xavier, VÁZQUEZ, Joan and GIBERT, Karina, 2025. A machine-readable metadata model for intelligent data analysis. *Cognitive Systems Research*. October 2025. Vol. 93, p. 101388. DOI 10.1016/j.cogsys.2025.101388.

- ARRATIA, Argimiro, EL DAOU, Mahmoud, KAGERHUBER, Jan and SMOLYAROVA, Yulia, 2025. Examining Challenges in Implied Volatility Forecasting: A Critical Review of Data Leakage and Feature Engineering combined with High-Complexity Models. *Computational Economics*. 11 November 2025. DOI 10.1007/s10614-025-11172-z.

- BANDARA, Ama, DAS, Abhijit, RODRÍGUEZ-GALÁN, Fátima, ALARCÓN, Eduard and ABADAL, Sergi, 2025. TRMAC: A time-reversal-based MAC protocol for wireless networks within computing packages. *Nano Communication Networks*. December 2025. Vol. 46, p. 100593. DOI 10.1016/j.nancom.2025.100593.

- CASAMITJANA, Adrià, SALA-LLONCH, Roser, LEKADIR, Karim and IGLESIAS, Juan Eugenio, 2025. USLR: An open-source tool for unbiased and smooth longitudinal registration of brain MRI. *Medical Image Analysis*. October 2025. Vol. 105, p. 103662. DOI 10.1016/j.media.2025.103662.

- LATIF-MARTÍNEZ, Hamid, PAILLISSÉ, Jordi, BARLET-ROS, Pere and CABELLOS-APARICIO, Albert, 2025. BGP anomaly detection using the raw internet topology. *Computer Networks*. December 2025. Vol. 273, p. 111753. DOI 10.1016/j.comnet.2025.111753.

- MALLEA, Mario, NEBOT, Ángela and MUGICA, Francisco, 2026. Advancing broad learning through structured feature generation. *Expert Systems with Applications*. March 2026. Vol. 299, p. 129948. DOI 10.1016/j.eswa.2025.129948.

- MALLEA, Mario, NEBOT, Àngela and MUGICA, Francisco, 2026. Ensemble echo state networks trained collectively for reliable energy forecasting in facilities. *Computers and Electrical Engineering*. January 2026. Vol. 129, p. 110854. DOI 10.1016/j.compeleceng.2025.110854.

IEB - Instrumentació Electrònica i Biomèdica

- TORRENTS, Josep M. and GARCIA-CALVETE, Julio, 2025. Increasing Wheatstone Bridge Sensitivity. *IEEE Transactions on Instrumentation and Measurement*. 2025. Vol. 74, p. 1–5. DOI 10.1109/tim.2025.3542674.

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

- ALEMÁN, Carlos, MUÑOZ-GALÁN, Helena and PÉREZ-MADRIGAL, Maria M., 2025. Recent Advances in Electrically Stimulated Insulin Delivery Systems. *ACS Omega*. 2 September 2025. Vol. 10, no. 36, p. 40750–40768. DOI 10.1021/acsomega.5c06147.

- ARNAU, Marc, PIELSTICKER, Lukas, HETABA, Walid, CASANOVAS, Jordi, TURON, Pau, ALEMÁN, Carlos and SANS, Jordi, 2025. The Synergistic Effect of Combining Electron Transfer and Photoactivation in Hydroxyapatite/ZrO2 Nanocomposites Promotes Efficient Nitrogen-to-Ammonia Fixation Reaction. *ACS Catalysis*. 12 June 2025. Vol. 15, no. 13, p. 11150–11162. DOI 10.1021/acscatal.5c02426.

- ARNAU, Marc, SANS, Jordi, TURON, Pau and ALEMÁN, Carlos, 2025. Sustainable oxidation of methane into formic acid using a polarized bioceramic under mild reaction conditions. *Sustainable Energy & Fuels*. 2025. Vol. 9, no. 14, p. 3808–3819. DOI 10.1039/d5se00134j.

- ARNAU, Marc, TEIXIDÓ, Isabel, TURON, Pau, ALEMÁN, Carlos and SANS, Jordi, 2025. Lattice Engineering in Hydroxyapatite Enables Direct Photocatalytic Synthesis of C4 Products from CO2. *ACS Applied Materials & Interfaces*. 16 December 2025. Vol. 17, no. 52, p. 70621–70633. DOI 10.1021/acsami.5c19539.

- BLANCO-FERNANDEZ, Barbara, BAGCI, Gulsun, PEREZ-AMODIO, Soledad, REY-VINOLAS, Sergi, XIMENES-CARBALLO, Celia, GATO-DIAZ, Uxia, CONCHEIRO, Angel, ALVAREZ-LORENZO, Carmen and ENGEL, Elisabeth, 2025. A bioprinted breast cancer model using bioinks of decellularized breast tissue for studying cancer stemness, invasion, and drug efficacy. *Acta Biomaterialia*. September 2025. Vol. 203, p. 306–321. DOI 10.1016/j.actbio.2025.07.054.

- FONTANA-ESCARTÍN, Adrián, SIMON, Nicolas, BERTRAN, Oscar, CONTINI, Alessandro, TORRAS, Juan and ALEMÁN, Carlos, 2025. Plasma-Treated Poly(Lactic Acid): Deciphering the Structure of a Versatile Engineering Material. *ACS Omega*. 9 December 2025. Vol. 10, no. 50, p. 61915–61926. DOI 10.1021/acsomega.5c08696.

- GALLEGO, Eva, PERALES, José Francisco, NAVARRO, Anna and TEIXIDOR, Pilar, 2025. Evaluation of potential sample contamination from a self-designed automatic

device for volatile organic compounds (VOCs) active air sampling. *Journal of Chromatography A*. November 2025. Vol. 1762, p. 466380. DOI 10.1016/j.chroma.2025.466380.

- HARO-GUTIÉRREZ, Pilar A., RESINA, Leonor, CASANOVAS, Jordi, AMOURA, Damia, SÁNCHEZ, Margarita, PÉREZ-MADRIGAL, Maria M. and ALEMÁN, Carlos, 2026. Smart lactate delivery from electro-responsive electrospun fibers. *Journal of Drug Delivery Science and Technology*. January 2026. Vol. 115, p. 107640. DOI 10.1016/j.jddst.2025.107640.

- MINGOT, Júlia, GJASHTA, Xhoen, ZEUMER, Richard, HARRE, Kathrin, ARMELIN, Elaine and LANZALACO, Sonia, 2025. Convergence of superior properties from natural polymers and stimuli-responsive hydrogels for intelligent solar-driven evaporators. *Chemical Engineering Journal*. December 2025. Vol. 526, p. 171408. DOI 10.1016/j.cej.2025.171408.

- MOHAMMED-SADHAKATHULLAH, Ahammed HM, RESINA, Leonor, ENSHAEI, Hamidreza, IVANOVA, Kristina, TZANOV, Tzanko, PÉREZ-MADRIGAL, Maria M., ARMELIN, Elaine and TORRAS, Juan, 2025. Cholesterol-Functionalized Porous PLA Microparticles for Enhanced Drug Delivery. *ACS Applied Bio Materials*. 4 September 2025. Vol. 8, no. 9, p. 7743–7756. DOI 10.1021/acsabm.5c00693.

- NARANJO, David, LANZALACO, Sonia, MOHAMMED-SADHAKATHULLAH, Ahammed H.M., BORRAS, Núria, GARCÍA-TORRES, José and TORRAS, Juan, 2026. Conductive nanocomposites as molecular modulators of hydration in thermoresponsive PNiPAAm-derivative hydrogels. *Materials Today Physics*. January 2026. Vol. 60, p. 101998. DOI 10.1016/j.mtphys.2025.101998.

- RAMÍREZ-ALBA, María Dolores, RESINA, Leonor, GARCÍA-TORRES, José, MACOVEZ, Roberto, ALEMÁN, Carlos and PÉREZ-MADRIGAL, Maria M., 2025. Thiol-yne crosslinked alginate click-hydrogel for the electrical stimulation of skin wound healing. *International Journal of Biological Macromolecules*. September 2025. Vol. 322, p. 146880. DOI 10.1016/j.ijbiomac.2025.146880.

- SANS, Jordi, COLOMBI, Samuele, ARNAU, Marc, FONTANA-ESCARTÍN, Adrián, RESINA, Leonor, GARCIA-TORRES, José and ALEMÁN, Carlos, 2025. Plasma-Assisted and Solvent-Free Ultra-Fast Synthesis of Gold and Gold Oxide Ultra-Small Nanoparticles and its use as Multi-Sensing Platforms. *Small*. 28 October 2025. Vol. 21, no. 49. DOI 10.1002/smll.202506752.

- VILLA, Marta, SANS, Jordi, ARNAU, Marc, ESTRANY, Francesc, ARMELIN, Elaine, RAMÓN, Teresa, CEBRIÁN, Virginia, AHUMADA, Óscar and ALEMÁN, Carlos, 2025. Strategy to optimize the surface functionalization of immunosensors and improve their detection efficiency. *Applied Surface Science*. October 2025. Vol. 705, p. 163529. DOI 10.1016/j.apsusc.2025.163529.

- VITALES, Carolina, SANS, Jordi, FONTANA-ESCARTÍN, Adrián, ARMELIN, Elaine and ALEMÁN, Carlos, 2025. A Semisolid Polymer-Based Electrochemical Cell for Electrostimulated Lactate Detection. *ACS Omega*. 11 December 2025. Vol. 10, no. 50, p. 62216–62226. DOI 10.1021/acsomega.5c09923.

- ZANUY, David, CASTREJÓN-COMAS, Victor, SÁNCHEZ-MORÁN, Joel, FONTANA-ESCARTÍN, Adrián, ARNAU, Marc, PÉREZ-MADRIGAL, Maria M. and ALEMÁN, Carlos, 2025. Unraveling the semi-interpenetration with conducting polymer of electroresponsive click-hydrogels made of hyaluronic acid via molecular dynamics simulations. *Polymer*. May 2025. Vol. 327, p. 128395. DOI 10.1016/j.polymer.2025.128395.

IMP - Information Modeling and Processing

- FONSECA I CASAS, Pau, 2025. Decoupling Learning from Time and Space. Towards the Implementation of the Ubiquitous Class Using Industry 4.0 Main Levers. *Technology, Knowledge and Learning*. 11 April 2025. DOI 10.1007/s10758-025-09845-7.

- FONSECA I CASAS, Pau and PI I PALOMES, Xavier, 2026. Building Society 5.0: a foundation for decision-making based on open models and digital twins. *Advanced Engineering Informatics*. January 2026. Vol. 69, p. 103970. DOI 10.1016/j.aei.2025.103970.

- ORIOL, Xavier and TENIENTE, Ernest, 2025. Incremental checking of SQL assertions in an RDBMS. *Information Systems*. August 2025. Vol. 133, p. 102550. DOI 10.1016/j.is.2025.102550.

inSSIDE - integrated Software, Services, Information and Data Engineering

- DURÁN, Francisco, MARTINEZ, Matias, LAGO, Patricia and MARTÍNEZ-FERNÁNDEZ, Silverio, 2025. Insights into resource utilization of code small language models serving with runtime engines and execution providers. *Journal of Systems and Software*. December 2025. Vol. 230, p. 112574. DOI 10.1016/j.jss.2025.112574.

- GONZÁLEZ, Alexandra, CASTAÑO, Joel, FRANCH, Xavier and MARTÍNEZ-FERNÁNDEZ, Silverio, 2025. Impact of ML optimization tactics on greener pre-trained ML models. *Computing*. April 2025. Vol. 107, no. 4. DOI 10.1007/s00607-025-01437-8.

- NJOKU, Uchechukwu F., ABELLÓ, Alberto, BILALLI, Besim and BONTEMPI, Gianluca, 2025. Towards fair machine learning using many-objective feature selection. *Applied Soft Computing*. September 2025. Vol. 181, p. 113411. DOI 10.1016/j.asoc.2025.113411.

InSup - Grup de Recerca en Interacció de Superfícies en Bioenginyeria i Ciència dels Materials

- CORDERO-SÁNCHEZ, Juan, BINI, Rodrigo and SERRANCOLÍ, Gil, 2025. Validity of recurrent neural networks to predict pedal forces and lower limb kinetics in cycling. *Journal of Biomechanics*. April 2025. Vol. 183, p. 112619. DOI 10.1016/j.jbiomech.2025.112619.

IONHE - Ionising Radiation, Health and Environment

- MUNDÓ, Ignasi, CANER, Ferhun C. and MATEO, Antonio, 2025. Micromechanical modelling of the elastoplasticity and damage in ductile metals. *International Journal of Solids and Structures*. July 2025. Vol. 317, p. 113437. DOI 10.1016/j.ijsolstr.2025.113437.

ISG-MAK - Information Security Group - Mathematics Applied to Cryptography

- DOMÉNECH, Jordi, LEÓN, Olga, SIDDIQUI, Muhammad Shuaib and PEGUEROLES, Josep, 2025. Evaluating and enhancing intrusion detection systems in IoMT: The importance of domain-specific datasets. *Internet of Things*. July 2025. Vol. 32, p. 101631. DOI 10.1016/j.iot.2025.101631.

- HERRANZ, Javier and SÁEZ, Germán, 2025. (k, n)-Consecutive access structures. *Designs, Codes and Cryptography*. 24 May 2025. Vol. 93, no. 9, p. 3543–3563. DOI 10.1007/s10623-025-01651-7.

- ROMÁN-GARCÍA, Fernando, HERNÁNDEZ-SERRANO, Juan and ESPARZA, Oscar, 2025. NoRDEx: A decentralized optimistic non-repudiation protocol for data exchanges. *Journal of Network and Computer Applications*. November 2025. Vol. 243, p. 104291. DOI 10.1016/j.jnca.2025.104291.

ISI - Grup d'Instrumentació, Sensors i Interfícies

- CUMELLES-CÉSPEDES, Joel, GRAU-ÁLVAREZ, Adrià, CASAS, Oscar and ORTEGA, Enrique, 2026. An eight-degree-of-freedom coupled aerodynamic model for high performance paraglider-harness/pilot systems. *Aerospace Science and Technology*. February 2026. Vol. 169, p. 111440. DOI 10.1016/j.ast.2025.111440.

- REVERTER, Ferran, CHANDRIKA SREEKANTAN, Anoop and GEORGE, Boby, 2025. Circuits for the Measurement of Remote Resistive Sensors: A Review. *IEEE Transactions on Instrumentation and Measurement*. 2025. Vol. 74, p. 1–13. DOI 10.1109/tim.2025.3542136.

LACAN-UPC - Mètodes Numèrics en Ciències Aplicades i Enginyeria

- DINGLE, Mònica, ARIAS, Irene and CODONY, David, 2025. Continuum and computational modeling of surface effects in flexoelectric materials. *Computer Methods in Applied Mechanics and Engineering*. June 2025. Vol. 441, p. 117971. DOI 10.1016/j.cma.2025.117971.

- GAHIMA, Stephan, STEFANATI, Marco, RODRÍGUEZ MATAS, José Félix, GARCÍA-GONZÁLEZ, Alberto and DÍEZ, Pedro, 2025. Adaptive reduced order modeling to assess peak stresses in heterogeneous arterial sections. *Computational Mechanics*. 11 November 2025. DOI 10.1007/s00466-025-02713-2.

- GIACOMINI, Matteo, CORTELLESSA, Davide, VIEIRA, Luan M., SEVILLA, Ruben and HUERTA, Antonio, 2025. A Hybrid Pressure Formulation of the Face-Centred Finite Volume Method for Viscous Laminar Incompressible Flows. *International Journal for Numerical Methods in Engineering*. 21 May 2025. Vol. 126, no. 10. DOI 10.1002/nme.70037.

- GIACOMINI, Matteo and HUERTA, Antonio, 2026. A surrogate model for topology optimisation of elastic structures via parametric autoencoders. *Computer Methods in Applied Mechanics and Engineering*. January 2026. Vol. 448, p. 118503. DOI 10.1016/j.cma.2025.118503.

- MOAVEN, Arash, MASSART, Thierry J. and ZLOTNIK, Sergio, 2025. Parametric solutions of coupled Thermo-Hydro-Mechanical problems in real time with Proper Generalized Decomposition. *Finite Elements in Analysis and Design*. May 2025. Vol. 247, p. 104352. DOI 10.1016/j.finel.2025.104352.

- MONTLAUR, Adeline, ARIAS, Santiago and ROJAS, Jose I., 2025. Influence of terrain roughness on numerical simulations of sea-breezes. *Journal of Wind*

Engineering and Industrial Aerodynamics. November 2025. Vol. 266, p. 106195. DOI 10.1016/j.jweia.2025.106195.

- PÉREZ-ESCUDERO, Sergi and FERNÁNDEZ-MÉNDEZ, Sonia, 2025. A C0 Interior Penalty Finite Element method for flexoelectricity at finite deformations. *Computer Methods in Applied Mechanics and Engineering*. September 2025. Vol. 444, p. 118133. DOI 10.1016/j.cma.2025.118133.

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

- SAL-ANGLADA, G., YAGO, D., CANTE, J., OLIVER, J., PÀMIES, T. and ROCA, D., 2025. Transverse coupled resonances for ultrathin lightweight acoustic metamaterials. *Thin-Walled Structures*. August 2025. Vol. 213, p. 113219. DOI 10.1016/j.tws.2025.113219.

LIM/UPC - Laboratori d'Enginyeria Marítima

- ALTOMARE, Corrado, MARZEDDU, Andrea and GIRONELLA, Xavi, 2026. Storm-sequence control of beach evolution and overtopping at vertical promenade defences. *Ocean Engineering*. February 2026. Vol. 347, p. 123789. DOI 10.1016/j.oceaneng.2025.123789.

- ASTUDILLO-GUTIERREZ, Carlos, SIERRA, Joan Pau, MÖSSO, César and GRACIA, Vicente, 2025. Impact of banquette structures on a sandy beach profile: Laboratory experiments. *Coastal Engineering*. December 2025. Vol. 202, p. 104815. DOI 10.1016/j.coastaleng.2025.104815.

- CASTRO-ROSERO, Leidy M., HERNANDEZ, Ivan, LISTE, Maria, ALSINA, Jose M., ESPINO, Manuel, POJAR, Iulian and VASILIU, Dan, 2025. Tracing the sources of floating plastic in Romanian waters under changing regional pressures through backtracking modeling. *Science of The Total Environment*. December 2025. Vol. 1008, p. 181035. DOI 10.1016/j.scitotenv.2025.181035.

- HERNANDEZ, Ivan, CASTRO-ROSERO, Leidy M., UVIEDO, Oriol, DE HAAN, William P., LISTE, María, SANCHEZ-VIDAL, Anna, ESPINO, Manuel and ALSINA, Jose M., 2026. Tracing marine litter sources along the Barcelona coastline: Insights from observations and numerical modelling. *Marine Pollution Bulletin*. January 2026. Vol. 222, p. 118876. DOI 10.1016/j.marpolbul.2025.118876.

- ROMERO-MARTÍN, Rut, GAROLA, Alvar, VALDEMORO, Herminia I. and JIMÉNEZ, José A., 2025. Adapting beaches to sea level rise: A sediment-based strategy for

protecting coastal tourism in Catalonia (NW Mediterranean). *Ocean & Coastal Management*. August 2025. Vol. 267, p. 107729. DOI 10.1016/j.ocecoaman.2025.107729.

- ROMERO-MARTÍN, Rut, VALDEMORO, Herminia and JIMÉNEZ, José A, 2025. Unveiling coastal adaptation demands: Exploring erosion-induced spatial imperatives on the Catalan Coast (NW Mediterranean). *Landscape and Urban Planning*. November 2025. Vol. 263, p. 105450. DOI 10.1016/j.landurbplan.2025.105450.

LQMC - Lingüística Quantitativa, Matemàtica i Computacional

- BAIXERIES, Jaume and NAPOLI, Amedeo, 2025. A minimal base or a direct base? That is the question! *International Journal of Approximate Reasoning*. November 2025. Vol. 186, p. 109509. DOI 10.1016/j.ijar.2025.109509.

LRG - Lightning Research Group

- ARDILA, S., MONTANYÀ, J., LÓPEZ, J., SOLÀ, G. and RONCANCIO, A., 2026. Lightning flashes at electric power system towers identified as Recurrent Lightning Spots observed by ground and space-based systems. *Electric Power Systems Research*. February 2026. Vol. 251, p. 112334. DOI 10.1016/j.epsr.2025.112334.

MMCE - Mecànica de Medis Continus i Estructures

- ARES DE PARGA, S., BRAVO, J.R., SIBUET, N., HERNANDEZ, J.A., ROSSI, R., BOSCHERT, Stefan, QUINTANA-ORTÍ, Enrique S., TOMÁS, Andrés E., TATU, Cristian Cătălin, VÁZQUEZ-NOVOA, Fernando, EJARQUE, Jorge and BADIA, Rosa M., 2025. Parallel reduced-order modeling for digital twins using high-performance computing workflows. *Computers & Structures*. September 2025. Vol. 316, p. 107867. DOI 10.1016/j.compstruc.2025.107867.

- CORNEJO, A., KALKBRENNER, P., ROSSI, R. and PELÀ, L., 2025. A machine learning based material homogenization technique for in-plane loaded masonry walls. *Computers & Structures*. July 2025. Vol. 314, p. 107754. DOI 10.1016/j.compstruc.2025.107754.

- GIMENEZ, Juan M., IDELSOHN, Sergio R. and OÑATE, Eugenio, 2025. Modeling and simulation of multiphase flow in highly fractured porous media with a data-driven multiscale approach. *Computational Mechanics*. 10 February 2025. Vol. 75, no. 6, p. 1847–1866. DOI 10.1007/s00466-024-02594-x.

- GONCALVES, Paulo Teixeira, ARTEIRO, Albertino, ROCHA, Nuno and OTERO, Fermin, 2025. Coupled longitudinal and transverse damage modeling of fiber-reinforced polymers using a smeared crack approach. *International Journal of Solids and Structures*. April 2025. Vol. 311, p. 113252. DOI 10.1016/j.ijsolstr.2025.113252.

- MONTANINO, Andrea, SOTOMAYOR, Miguel Masó and FRANCI, Alessandro, 2025. One-way coupled Eulerian–Lagrangian strategy for wave propagation and impact on coastal areas. *Communications in Nonlinear Science and Numerical Simulation*. August 2025. Vol. 147, p. 108845. DOI 10.1016/j.cnsns.2025.108845.

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

- CAÑO, Ivan, NAVARRO-GÜELL, Alejandro, MAGGI, Edoardo, GON MEDAILLE, Axel, ROVIRA, David, JIMENEZ-ARGUIJO, Alex, SEGURA, Oriol, TORRENS, Arnau, JIMENEZ, Maykel, LÓPEZ, Cibrán, BENÍTEZ, Pol, CAZORLA, Claudi, JEHL, Zac, GONG, Yuancai, ASENSI, José-Miguel, CALVO-BARRIO, Lorenzo, SOLER, Lluís, LLORCA, Jordi, TAMARIT, Josep-Lluís, GALIANA, Beatriz, DIMITRIEVSKA, Mirjana, RUIZ-MARÍN, Nazaret, CHUN, Hao Zhe, WONG, Lydia, PUIGDOLLERS, Joaquim, PLACIDI, Marcel and SAUCEDO, Edgardo, 2025. Ribbons of Light: Emerging (Sb,Bi)(S,Se)(Br,I) Van der Waals Chalcohalides for Next-Generation Energy Applications. *Small*. 23 July 2025. Vol. 21, no. 37. DOI 10.1002/smll.202505430.

- CAÑO, Ivan, TORRENS, Arnau, SEGURA-BLANCH, Oriol, MAGGI, Edoardo, JIMÉNEZ-ARGUIJO, Alex, EL KHOUJA, Outman, NAVARRO-GÜELL, Alejandro, ROVIRA, David, AROLDI, Andrea, ASENSI, José-Miguel, ALCOBÉ, Xavier, PUIGJANER, Cristina, SCHWIDDESSEN, Rene, SCHORR, Susan, PÉREZ-RODRIGUEZ, Alejandro, SYLLA, Diouldé, JEHL, Zacharie, SAUCEDO, Edgardo and PLACIDI, Marcel, 2025. Oriented for Efficiency: Textured Se Thin Films Fabricated by Vapor Transport Deposition for Emerging Photovoltaic Applications. *Advanced Energy and Sustainability Research*. 17 July 2025. Vol. 6, no. 12. DOI 10.1002/aesr.202500189.

- CORNEJO, A., ALCAYDE, B., JIMÉNEZ, S., BARBU, L.G. and OLLER, S., 2025. Development of a thermomechanical model for fracture under monotonic and cyclic loading with enhanced strain accuracy. *Engineering Fracture Mechanics*. November 2025. Vol. 328, p. 111437. DOI 10.1016/j.engfracmech.2025.111437.

- DOMÍNGUEZ-PUMAR, Manuel, CEBALLOS, Joaquin, JUÁREZ, Manuel de la Torre, NAVARRO, Sara, MARÍN, Mercedes, GOMEZ-ELVIRA, Javier and RODRÍGUEZ-MANFREDI, José Antonio, 2025. Stochastic dynamics in first-order thermal Sigma-Delta modulation. *Measurement*. December 2025. Vol. 256, p. 118228. DOI 10.1016/j.measurement.2025.118228.

- ESTARLICH, Pau, ÁLVAREZ-SUÁREZ, Gustavo, LOPEZ-GARCIA, Alex J., ASENSI, José Miguel, VOZ, Cristóbal, PÉREZ-RODRÍGUEZ, Alejandro, SAUCEDO, Edgardo, PUIGDOLLERS, Joaquim and MASMITJÀ, Gerard, 2026. Transparent solar cells based on a-Si1-xCx:H alloys: from silicon to carbon-rich absorbers. *Renewable Energy*. January 2026. Vol. 256, p. 124455. DOI 10.1016/j.renene.2025.124455.

- GAMEL, M., RIVERA, G., LÓPEZ, G., GARÍN, M. and MARTÍN, I., 2025. Phosphorus-doped nanocrystalline silicon as electron selective contact for epitaxial-free germanium thermophotovoltaic devices. *Solar Energy Materials and Solar Cells*. October 2025. Vol. 292, p. 113778. DOI 10.1016/j.solmat.2025.113778.

- GONG, Yuancai, JIMENEZ‐ARGUIJO, Alex, CAÑO, Ivan, SCAFFIDI, Romain, MALERBA, Claudia, VALENTINI, Matteo, PAYNO, David, NAVARRO‐GÜELL, Alejandro, SEGURA‐BLANCH, Oriol, FLANDRE, Denis, VERMANG, Bart, PEREZ‐RODRIGUEZ, Alejandro, GIRALDO, Sergio, PLACIDI, Marcel, JEHL LI‐KAO, Zacharie and SAUCEDO, Edgardo, 2025. Attaining 15.1% Efficiency in Cu2ZnSnS4 Solar Cells Under Indoor Conditions Through Sodium and Lithium Codoping. *Solar RRL*. 18 February 2025. Vol. 9, no. 4. DOI 10.1002/solr.202400756.

- JIMÉNEZ-GUERRA, Maykel, CAÑO, Ivan, JIMÉNEZ-ARGUIJO, Alex, NAVARRO-GÜELL, Alejandro, GON-MEDAILLE, Axel, CALVO-BARRIO, Lorenzo, ARMELIN, Elaine, MOHAMMED-SADHAKATHULLAH, Ahammed H.M., PLACIDI, Marcel, SÁNCHEZ, Yudania, PUIGDOLLERS, Joaquim and SAUCEDO, Edgardo, 2025. Synergistic effects of high-pressure processing and interface engineering in Sb2Se3/CdS photovoltaic devices. *Solar Energy*. September 2025. Vol. 298, p. 113670. DOI 10.1016/j.solener.2025.113670.

- RIVERA, G., GAMEL, M., LÓPEZ, G., GARÍN, M. and MARTÍN, I., 2025. Laser-fired contacts for p-type c-Ge TPV devices. *Solar Energy Materials and Solar Cells*. December 2025. Vol. 293, p. 113837. DOI 10.1016/j.solmat.2025.113837.

- RIVERA, G., GAMEL, M., LÓPEZ, G., LÓPEZ-GONZÁLEZ, J.M., GARÍN, M. and MARTÍN, I., 2025. Bifacial thermophotovoltaics: Design and modeling of c-Ge

devices. *Solar Energy Materials and Solar Cells*. August 2025. Vol. 289, p. 113680. DOI 10.1016/j.solmat.2025.113680.

- RIVERA, G., GAMEL, M., TUNEU, N., LÓPEZ, G., GARÍN, M. and MARTÍN, I., 2026. n+p Junctions in p-type c-Ge based on annealed phosphorous-doped nanocrystalline silicon films. *Applied Surface Science*. February 2026. Vol. 717, p. 164750. DOI 10.1016/j.apsusc.2025.164750.

- ROSERO-POZO, Carlos, PONS-NIN, Joan, KUMAR, Suresh, JIMENEZ, Vicente, BROTO, Sandra Bermejo and DOMINGUEZ-PUMAR, Manuel, 2025. Extension of the frequency range of thermal impedance measurements for the characterization of the thermophysical properties of regolith. *Measurement*. September 2025. Vol. 253, p. 117511. DOI 10.1016/j.measurement.2025.117511.

- SEGURA-BLANCH, Oriol, TORRENS, Arnau, PRADES, Ivan Caño, JIMENEZ-ARGUIJO, Alex, GARCIA-CARRERAS, Laura, CALVO-BARRIO, Lorenzo, ASENSI, José Miguel, PUIGDOLLERS, Joaquim, PLACIDI, Marcel and SAUCEDO, Edgardo, 2025. Understanding the Role of Transition Metal Oxides as Hole-Selective Contacts for Enhanced Efficiency in Selenium Solar Cells. *ACS Applied Energy Materials*. 6 November 2025. Vol. 8, no. 22, p. 16729–16738. DOI 10.1021/acsaem.5c02637.

OMGRAPH - Optimisation Methods on Graphs

- FÀBREGA, Josep, MARCOTE, Xavier and MUÑOZ, Xavier, 2025. On the size of immune sets in the k-PULL infection model. *Discrete Applied Mathematics*. November 2025. Vol. 375, p. 166–177. DOI 10.1016/j.dam.2025.05.047.

POL - Polímers Industrials Avançats i Biopolímers Tecnològics

- DOROST, Porochista, MORAIS, Miguel R. G., GUIMARÃES, Sofia Cunha, PÊGO, Ana Paula, GARCÍA‐ALVAREZ, Montserrat and MARTÍNEZ DE ILARDUYA, Antxon, 2025. Amphiphilic Poly(γ‐glutamic acid) Derivatives for Delivering Doxorubicin in Cancer Cells. *Macromolecular Bioscience*. 22 June 2025. Vol. 25, no. 10. DOI 10.1002/mabi.202500090.

- TINAJERO DÍAZ, Ernesto, ZAMORA, Eduard Carles and MARTÍNEZ DE ILARDUYA, Antxon, 2025. Bio-based poly(1,3-trimethyleneglycol-co-lactide) triblock copolymers: a promising platform for biomedical applications. *Polymer Chemistry*. 2025. Vol. 16, no. 35, p. 3935–3945. DOI 10.1039/d5py00594a.

- TINAJERO-DÍAZ, Ernesto, MURPHY, Robert D., LI, Bo, HEISE, Andreas and MARTÍNEZ DE ILARDUYA, Antxon, 2025. In Situ Formation of Nanoparticles from Graft Copolypeptides Under Dispersion Polymerization Conditions. *Macromolecular Rapid Communications*. 28 April 2025. Vol. 46, no. 14. DOI 10.1002/marc.202500069.

POLTEPO - Polimers Termoestables Epoxidics

- CASADO, J., FAJA, A., MORADI, S., RAMIS, X., KONURAY, O. and FERNÁNDEZ-FRANCOS, X., 2025. Reprocessable epoxy-acrylate 3D-printing resins with improved compatibility. *Reactive and Functional Polymers*. September 2025. Vol. 214, p. 106309. DOI 10.1016/j.reactfunctpolym.2025.106309.

- MANGIALETTO, Jessica, KONURAY, Osman, MORADI, Sasan, FERNÁNDEZ-FRANCOS, Xavier, BRANCART, Joost, VAN DEN BRANDE, Niko, RAMIS, Xavier and VAN ASSCHE, Guy, 2025. Quantitative Prediction of Stress Relaxation Kinetics in Dissociative Covalent Adaptable Networks. *Macromolecules*. 3 December 2025. Vol. 58, no. 24, p. 13074–13093. DOI 10.1021/acs.macromol.5c02070.

POLY2 - Polyfunctional polymeric materials

- FERRAZ, Micaella, NOGUEIRA, Gislaine Ferreira, BUONTEMPO, Rodolfo Cardoso, MARTELLI, Silvia Maria, DE CARVALHO, Carlos Wanderlei Piler, VELASCO, José Ignacio and FAKHOURI, Farayde Matta, 2026. Development and characterization of bioplastics based on different varieties of corn starch (Zea mays L.): Morphological, thermal and mechanical properties. *International Journal of Biological Macromolecules*. January 2026. Vol. 337, p. 149550. DOI 10.1016/j.ijbiomac.2025.149550.

- MARTINS, Sérgio Henrique Ferreira, PONTES, Karen Valverde, FILGUEIRAS, Cristina Tostes, NOGUEIRA, Gislaine Ferreira, FIALHO, Rosana and FAKHOURI, Farayde Matta, 2025. Development and characterization of starch films extracted from avocado (Persea americana mill) seeds incorporated with avocado (Persea Gratissima) essential oil. *International Journal of Biological Macromolecules*. September 2025. Vol. 322, p. 146624. DOI 10.1016/j.ijbiomac.2025.146624.

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

- PRADELL, Trinitat, CAÑELLAS, Sílvia, BONET, Jordi, GARCIA-VALLES, Maite and SANTOLÀRIA, Anna, 2025. The medieval stained glass in Catalonia: Girona cathedral. *Journal of Cultural Heritage*. July 2025. Vol. 74, p. 99–105. DOI 10.1016/j.culher.2025.05.012.

- RAMÍREZ-ALBA, María Dolores, ROMANINI, Michela, PÉREZ-MADRIGAL, Maria M., TAMARIT, Josep Lluís, ALEMÁN, Carlos and MACOVEZ, Roberto, 2025. Protonic charge conduction and H2O-induced relaxations in hydrated sodium alginate and in calcium alginate hydrogels and xerogels. *The Journal of Chemical Physics*. 15 July 2025. Vol. 163, no. 3. DOI 10.1063/5.0278775.

- TORELLÓ, Àlvar, TAMARIT, Josep-Lluís and LLOVERAS, Pol, 2025. Finite-element study of a high-performance cascaded barocaloric cooler. *Applied Thermal Engineering*. December 2025. Vol. 280, p. 128055. DOI 10.1016/j.applthermaleng.2025.128055.

- ZENG, Ming, ROMANINI, Michela, GORICAN, Ivana, DRNOVSEK, Silvo, URSIC, Hana, SALVATORI, Alejandro, BARRIO, María, LOEHLE, Sophie, OBRECHT, Nicolas, ESCORIHUELA-SAYALERO, Carlos, CAZORLA, Claudio, TORELLÓ, Àlvar, LLOVERAS, Pol and TAMARIT, Josep-Lluís, 2025. Simultaneous shifts in pressure and electric field boost the caloric response in ferroelectrics. *Materials Horizons*. 2025. Vol. 12, no. 20, p. 8460–8471. DOI 10.1039/d5mh00196j.

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

- ESPINOZA-ZAMBRANO, Paúl and MARMOLEJO-DUARTE, Carlos, 2025. What Spanish households want: Insights into public acceptance of a novel energy renovation framework. *Energy Research & Social Science*. November 2025. Vol. 129, p. 104395. DOI 10.1016/j.erss.2025.104395.

- MARMOLEJO-DUARTE, Carlos, ESPINOZA-ZAMBRANO, Paúl, BIERE-ARENAS, Rolando and CHEN, Ai, 2026. The recent evolution of energy performance premiums in Barcelona. *Energy and Buildings*. January 2026. Vol. 351, p. 116738. DOI 10.1016/j.enbuild.2025.116738.

- MARMOLEJO-DUARTE, Carlos, FULLAONDO-ELORDUI-ZAPATERIETXE, Arkaitz, ENCINAS-PINO, Felipe, AGUIRRE-NÚÑEZ, Carlos and ESPINOZA-ZAMBRANO, Paúl, 2026. Households' perceptions of the efficacy of retrofit policies to boost efficient homes in Spain. *Energy Policy*. March 2026. Vol. 210, p. 115059. DOI 10.1016/j.enpol.2025.115059.

RAIG - Mobile Robotics and Artificial Intelligence Group

- DOMÍNGUEZ-VIDAL, J. E. and SANFELIU, Alberto, 2025a. The Human Intention: A Taxonomy Attempt and Its Applications to Robotics. *International Journal of Social Robotics*. 18 September 2025. Vol. 17, no. 11, p. 2479–2499. DOI 10.1007/s12369-025-01304-8.

- DOMÍNGUEZ-VIDAL, J. E. and SANFELIU, Alberto, 2025b. When the Inference Meets the Explicitness or Why Multimodality can Make us Forget About the Perfect Predictor. *International Journal of Social Robotics*. 30 September 2025. Vol. 17, no. 12, p. 2965–2980. DOI 10.1007/s12369-025-01303-9.

- HRISCU, Lavinia, SANFELIU, Alberto and GARRELL, Anaís, 2026. Human Perception in Social Tasks: A Comparative Evaluation of Autonomous and Teleoperated Robots. *IEEE Robotics and Automation Letters*. January 2026. Vol. 11, no. 1, p. 234–241. DOI 10.1109/lra.2025.3632091.

REARQ - Rehabilitació i Restauració Arquitectònica

- VIMA-GRAU, Sara, 2025. A look at micro-scale spatial inequalities: housing conditions in the vulnerable areas of Barcelona's historic center. *Journal of Housing and the Built Environment*. 22 April 2025. Vol. 40, no. 2, p. 845–874. DOI 10.1007/s10901-025-10184-3.

REMM - Recerca en Estructures i Mecànica de Materials

- BU, Xiangbo, LEDESMA, Alberto and LÓPEZ-ALMANSA, Francisco, 2025. Parametric study of the seismic resilience of low-lateral-stiffness underground structures. *Tunnelling and Underground Space Technology*. October 2025. Vol. 164, p. 106768. DOI 10.1016/j.tust.2025.106768.

RFLEX - Radio Frequency Identification and Flexible Electronics

- ABOUNASR, Jamal, EL GHARBI, Mariam, FERNÁNDEZ-GARCÍA, Raúl and GIL, Ignacio, 2026. Flexible body-integrated breathing monitoring system based on near-field coupling printed sensor. *Measurement*. January 2026. Vol. 258, p. 119371. DOI 10.1016/j.measurement.2025.119371.

- HUSSAIN, Tauseef, FERNÁNDEZ-GARCÍA, Raúl and GIL, Ignacio, 2025. Breathable artificial magnetic conductor with ground-grid structure for shielding wearable antenna sensors. *Sensors and Actuators A: Physical*. September 2025. Vol. 391, p. 116607. DOI 10.1016/j.sna.2025.116607.

- HUSSAIN, Tauseef, GIL, Ignacio and FERNÁNDEZ-GARCÍA, Raúl, 2025. Meander Resonator Coupled UHF RFID System for Biomechanics Sensing Applications. *IEEE Journal of Radio Frequency Identification*. 2025. Vol. 9, p. 227–235. DOI 10.1109/jrfid.2025.3570441.

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

- ANTICOI, Hernan, GARCIA, Lidia, DAN, Gabriel, SOLA, Pau and DORADO, Antonio D., 2025. Methodology for evaluation of lithium-ion black-mass battery recycling. *Journal of Material Cycles and Waste Management*. 6 February 2025. Vol. 27, no. 2, p. 1019–1033. DOI 10.1007/s10163-025-02159-x.

- BASAS-JAUMANDREU, Josep and DE LAS HERAS, F. Xavier C., 2025. Chemical investigation of stem and fruit lipophilic extracts from Juncus maritimus. *Biochemical Systematics and Ecology*. June 2025. Vol. 120, p. 104973. DOI 10.1016/j.bse.2025.104973.

- ESCALANTE, Percy, OLIVA, Josep, ANTICOI, Hernán, SAMPAIO, Carlos Hoffmann and MOHANTY, Kalyani, 2025. Characterization of mineralogical impurities in a carbonate-rich material using MLA. *Minerals Engineering*. September 2025. Vol. 230, p. 109409. DOI 10.1016/j.mineng.2025.109409.

- MOHAMMADI, H., GRECO, F., CODONY, D. and ARIAS, I., 2025. Flexoelectricity causes surface piezoelectric-like effects in dielectrics. *International Journal of Mechanical Sciences*. May 2025. Vol. 293, p. 110162. DOI 10.1016/j.ijmecsci.2025.110162.

- MORELL, Joan, LAO-LUQUE, Conxita, SOLE-SARDANS, Montserrat, RIBAS, David, GUIMERÀ, Xavier and DORADO, Antonio David, 2025. Closed-loop bioleaching for mobile phones from the bioregeneration of the leaching agent to the recovery of metal: A review. *Journal of Industrial and Engineering Chemistry*. November 2025. Vol. 151, p. 90–111. DOI 10.1016/j.jiec.2025.04.020.

- MORELL, Joan, RIBAS, David, TRISTANY, Isolda, GUIMERÀ, Xavier and DORADO, Antonio David, 2025. Metal recovery in mobile phone waste: Characterization of metal composition and economic assessment through shredding and screening processes. *Waste Management*. April 2025. Vol. 196, p. 93–105. DOI 10.1016/j.wasman.2025.02.014.

- NIUBÓ, Maria, DE FELIPE, José Juan, BASCOMPTA, Marc, PÉREZ-RÀFOLS, Francesc, VIVES-COSTA, Jordi, SANMIQUEL, Lluís and LÓPEZ, Joan-Antoni, 2025.

Assessing mine ventilation optimization and friction factor determination for underground mines. *Arabian Journal of Geosciences*. 26 February 2025. Vol. 18, no. 3. DOI 10.1007/s12517-025-12205-5.

- PÉREZ-RÀFOLS, Francesc, LIANG, Xuan-Ming and CIAVARELLA, Michele, 2026. General results for loading and unloading rough elasto-plastic interfaces. *European Journal of Mechanics - A/Solids*. March 2026. Vol. 116, p. 105908. DOI 10.1016/j.euromechsol.2025.105908.

- VERA-BURAU, Alejandra, PERA, Lluís Sanmiquel and MASSANES, Marc Bascompta, 2025. Integration of quantitative ESG factors in a mining project: Case studies of a quarry. *Journal of Cleaner Production*. April 2025. Vol. 501, p. 145304. DOI 10.1016/j.jclepro.2025.145304.

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

- BATET, Gerard, SARRIA, David, RAMON, Alex, GOMARIZ, Spartacus, LOPEZ, Juan Manuel, NAVARRO, Joan, COMPANY, Joan B., DEL RIO, Joaquin and MASMITJA, Ivan, 2025. Bidirectional Acoustic Tag for Marine Biotelemetry, System Design, and Implementation. *IEEE Transactions on Instrumentation and Measurement*. 2025. Vol. 74, p. 1–11. DOI 10.1109/tim.2025.3588999.

SEPIC - Sistemes Electrònics de Potència i de Control

- CASTILLA, Miguel, CHICO-VILLEGAS, José-Pascual, MIRET, Jaume, BORRELL, Ángel and DUARTE, Josué, 2025. Negative-Sequence Control to Avoid Voltage Imbalance Propagation Across an Inverter-Based Islanded Multi-Microgrid. *IEEE Transactions on Smart Grid*. November 2025. Vol. 16, no. 6, p. 4335–4347. DOI 10.1109/tsg.2025.3589671.

SISCOM - Smart Services for Information Systems and Communication Networks

- TOBAR NICOLAU, Adrián, PARRA-ARNAU, Javier, FORNÉ, Jordi and TORRA, Vicenç, 2025. Uncoordinated Syntactic Privacy: A New Composable Metric for Multiple, Independent Data Publishing. *IEEE Transactions on Information Forensics and Security*. 2025. Vol. 20, p. 3362–3373. DOI 10.1109/tifs.2025.3551645.

SOC-STEM - Impacte Social de les STEM

- BALTÀ-SALVADOR, Rosó, BRASÓ-VIVES, Enric and PEÑA, Marta, 2026. Evaluating AI-assisted creative ideation: A crossover study in higher education.

Thinking Skills and Creativity. March 2026. Vol. 59, p. 101958. DOI 10.1016/j.tsc.2025.101958.

- KITADA, Momoko, BARAHONA-FUENTES, Claudia and CASTELLS-SANABRA, Marcella, 2025. “Masculinities in maritime education and training: an opportunity to advance towards gender equality.” *Maritime Studies*. 16 June 2025. Vol. 24, no. 3. DOI 10.1007/s40152-025-00432-1.

SPCOM - Processament del Senyal i Comunicacions

- MARTÍ, Aniol, SANGUINETTI, Luca, LAMARCA, Meritxell and RIBA, Jaume, 2025. Harnessing Wavefront Curvature and Spatial Correlation in Noncoherent MIMO Communications. *IEEE Wireless Communications Letters*. August 2025. Vol. 14, no. 8, p. 2461–2465. DOI 10.1109/lwc.2025.3572761.

TECNOFAB - Grup de Recerca en Tecnologies de Fabricació

- JEREZ-MESA, Ramón and VELÁZQUEZ-CORRAL, Eric, 2025. Texture truncation using Gaussian Mixture Models and feature parameter analysis for the metrology of mechanically textured surfaces. *Measurement*. November 2025. Vol. 255, p. 117862. DOI 10.1016/j.measurement.2025.117862.

- SANZ-FRAILE, Héctor, HERRERO-CORTINA, Beatriz, ROVIRA-RIBALTA, Nona, FERNÁNDEZ-BARAT, Laia, TORRES, Antoni and ALCARAZ-SERRANO, Victoria, 2026. From Colour to Mechanics: A Dual Biomarker for Bronchiectasis Sputum. *Archivos de Bronconeumología*. March 2026. Vol. 62, no. 3, p. 196–198. DOI 10.1016/j.arbres.2025.09.013.

- VELÁZQUEZ-CORRAL, Eric, KOÇAK, Murat Sarp, JEREZ-MESA, Ramón, LLUMÀ, Jordi and TRAVIESO-RODRIGUEZ, J. Antonio, 2025. Texture enhancement of X40CrMoV5-1 stainless steel sheets through ultrasonic vibration-assisted ball burnishing. *The International Journal of Advanced Manufacturing Technology*. 20 September 2025. Vol. 140, no. 7–8, p. 4269–4282. DOI 10.1007/s00170-025-16512-9.

- WANG, Haojie, JEREZ-MESA, Ramón, VELÁZQUEZ-CORRAL, Eric and WANG, Xiaoqiang, 2025. Ultrasonic rolling strengthening theory and mechanism analysis of high-strength 42CrMo steel. *Archives of Civil and Mechanical Engineering*. 18 April 2025. Vol. 25, no. 3. DOI 10.1007/s43452-025-01189-4.

TecSalut - Grup de Recerca en Tecnologíes de la Salut

- MACERATESI, Filippo, FEBRER-NAFRÍA, Míriam and FONT-LLAGUNES, Josep M., 2025. Calibrated muscle models improve tracking simulations without enhancing gait predictions. *PLOS One*. 1 July 2025. Vol. 20, no. 7, p. e0327172. DOI 10.1371/journal.pone.0327172.

TECTEX - Grup de Recerca en Tecnologia Tèxtil

- MIJAS, Gabriela, GOLLA, Anke, PRIETO, Remedios, CANO, Francesc, ALGABA, Inés, RIBA-MOLINER, Marta and CAYUELA, Diana, 2025. Valorization of the agricultural industrial hemp by-products for textile applications: assessment of their spinning potential through mechanical-chemical cottonization. *Cellulose*. May 2025. Vol. 32, no. 8, p. 5147–5166. DOI 10.1007/s10570-025-06557-0.

- PAGÉS-LLOBET, Antoni, JULIÁN, Fernando, ESPINACH, Francesc Xavier, ARDANUY, Mònica, OLIVER-ORTEGA, Helena and MÉNDEZ, José Alberto, 2026. Light-activated self-healing poly (lactic acid) for durable FDM 3D printing applications. *Reactive and Functional Polymers*. March 2026. Vol. 220, p. 106607. DOI 10.1016/j.reactfunctpolym.2025.106607.

- PAGÉS-LLOBET, Antoni, JULIÁN, Fernando, ESPINACH, Francesc Xavier, VENTURA, Heura, OLIVER-ORTEGA, Helena and MÉNDEZ, José Alberto, 2025. Synthesis and Characterization of Photo-Crosslinkable Coumarin-Based Poly(lactic acid) as a Promising Material for 3D Printing Applications. *ACS Applied Polymer Materials*. 3 March 2025. Vol. 7, no. 5, p. 3337–3348. DOI 10.1021/acsapm.5c00067.

- SADROLODABAEE, Payam, DE LA FUENTE, Albert, ARDANUY, Mònica and CLARAMUNT, Josep, 2025. Limestone calcined clay cementitious (LC3) paving flags with textile waste fibers and fine recycled aggregates: Mechanical, durability and multi-criteria sustainability analysis. *Construction and Building Materials*. November 2025. Vol. 501, p. 144241. DOI 10.1016/j.conbuildmat.2025.144241.

TF-EDP - Grup de Teoria de Funcions i Equacions en Derivades Parcials

- BORTZ, Simon, EGERT, Moritz and SAARI, Olli, 2025. Carleson conditions for weights: The quantitative small constant case. *Nonlinear Analysis*. August 2025. Vol. 257, p. 113802. DOI 10.1016/j.na.2025.113802.

UMA - Unitat de Mecanització Agrària

- VILLASANTE, Juliana, VILAS-FRANQUESA, Arnau and FOGLIANO, Vincenzo, 2025. Solid-state fermentation of avocado seed by aspergillus oryzae and aspergillus

awamori: Effects on nutritional composition, antioxidant activity, and volatile compounds. *Food Chemistry*. October 2025. Vol. 489, p. 144990. DOI 10.1016/j.foodchem.2025.144990.

UPCDS - Grup de Sistemes Dinàmics de la UPC

- CIMA, Anna, GASULL, Armengol, MAÑOSA, Víctor and MAÑOSAS, Francesc, 2025. Invariant Graphs and Dynamics of a Family of Continuous Piecewise Linear Planar Maps. *Qualitative Theory of Dynamical Systems*. 11 February 2025. Vol. 24, no. 2. DOI 10.1007/s12346-025-01221-1.

- CURBELO, Jezabel, 2025. Lagrangian descriptors in geophysical flows: a survey. *SeMA Journal*. 16 March 2025. Vol. 83, no. 1, p. 1–21. DOI 10.1007/s40324-025-00382-y.

- DELSHAMS, Amadeu, GIDEA, Marian and ROLDAN, Pablo, 2026. Semi-analytic construction of global transfers between quasi-periodic orbits in the spatial R3BP. *Communications in Nonlinear Science and Numerical Simulation*. January 2026. Vol. 152, p. 109220. DOI 10.1016/j.cnsns.2025.109220.

- DELSHAMS, Amadeu, OLLÉ, Mercè, PACHA, Juan Ramon and RODRÍGUEZ, Óscar, 2026. Breakdown of homoclinic orbits to L1 of the hydrogen atom in a circularly polarized microwave field. *Physica D: Nonlinear Phenomena*. January 2026. Vol. 485, p. 135031. DOI 10.1016/j.physd.2025.135031.

- FIGUERAS, Jordi-Lluís and PUIG, Joaquim, 2026. Computer validation of open gaps for the almost Mathieu operator with critical coupling. *Communications in Nonlinear Science and Numerical Simulation*. January 2026. Vol. 152, p. 109407. DOI 10.1016/j.cnsns.2025.109407.

- MAÑOSA, Víctor and PANTAZI, Chara, 2025. Kahan–Hirota–Kimura maps preserving original cubic Hamiltonians. *Mathematics and Computers in Simulation*. December 2025. Vol. 238, p. 240–254. DOI 10.1016/j.matcom.2025.05.002.

- PÉREZ-PALAU, Daniel and PICO-LACHE, Diego Enrique, 2025. Optimization of dynamics indicators in pendular systems. *Physica D: Nonlinear Phenomena*. December 2025. Vol. 484, p. 135028. DOI 10.1016/j.physd.2025.135028.

- SÁNCHEZ-MARTÍN, P., AMORÓS, J. and MASDEMONT, J.J., 2025. Capturing the short-term characteristics of a barred galaxy from a single snapshot.

Communications in Nonlinear Science and Numerical Simulation. October 2025. Vol. 149, p. 108923. DOI 10.1016/j.cnsns.2025.108923.

ViRVIG - Grup de Recerca en Visualització, Realitat Virtual i Interacció Gràfica

- GRÀCIA, A., PADRÓ, L., ALARCON, E. and VÁZQUEZ, P., 2025. Exploratory Analysis of Scientific Publications for University Governance. *Computer Graphics Forum*. 10 June 2025. Vol. 44, no. 6. DOI 10.1111/cgf.70158.

- PONTON, J. L., PUJOL, E., ARISTIDOU, A., ANDUJAR, C. and PELECHANO, N., 2025. DragPoser: Motion Reconstruction from Variable Sparse Tracking Signals via Latent Space Optimization. *Computer Graphics Forum*. 10 April 2025. Vol. 44, no. 2. DOI 10.1111/cgf.70026.

WiComTec - Grup de recerca en Tecnologíes i Comunicacions Sense Fils

- LOZANO-GARCÍA, Manuel, ESTRADA-PETROCELLI, Luis, ROMÁN, Roger Rosselló, JANÉ, Raimon, TRAMPUZ, Andrej and MORGENSTERN, Christian, 2025. A Machine Learning Approach to Microcalorimetric Pattern Classification of Pathogens in Synovial Fluid. *Journal of Orthopaedic Research*. 13 July 2025. Vol. 43, no. 10, p. 1855–1864. DOI 10.1002/jor.70024.

- VALENZUELA-PÉREZ, Ana, SOLSONA-SÁNCHEZ, Luis, GONZÁLEZ-ARBESÚ, José M., GARCIA-LOZANO, Mario and PÉREZ-DÍAZ-DE-CERIO, David, 2025. A Study on Packet Error Rate in Bluetooth Mesh Networks With Relay Redundancy. *IEEE Internet of Things Journal*. 1 July 2025. Vol. 12, no. 13, p. 23736–23746. DOI 10.1109/jiot.2025.3556119.

WNG - Grup de xarxes sense fils

- GOMEZ, Carles and CROWCROFT, Jon, 2026. Making TCP IoT-friendly towards the 6G era. *Computer Communications*. February 2026. Vol. 247, p. 108406. DOI 10.1016/j.comcom.2025.108406.

- SANCHEZ-VITAL, Roger, BELOGAEV, Andrey, GOMEZ, Carles, FAMAEY, Jeroen and GARCIA-VILLEGAS, Eduard, 2025. A Primer on AP Power Save in Wi-Fi 8: Overview, Analysis, and Open Challenges. *IEEE Wireless Communications*. December 2025. Vol. 32, no. 6, p. 157–164. DOI 10.1109/mcom.004.2400486.

2. Grups de recerca que tenen igual o més de 3 EDP i igual o més de 80 PAR tipus 1 per EDP o més

ATEM - Anàlisi i Tecnologia d'Estructures i Materials

- BRIGHENTI, Francesca, BADO, Mattia Francesco, ROMEO, Francesco, REBELLATO, Andrea and ZONTA, Daniele, 2025. Ranking bridge intervention scenarios with a risk-based predictive decision support system. *Automation in Construction*. December 2025. Vol. 180, p. 106553. DOI 10.1016/j.autcon.2025.106553.

- BUSTAMANTE-MORA, Boris, ARRAYAGO, Itsaso, GONZÁLEZ-DE-LEÓN, Isabel and REAL, Esther, 2025. Expressions to predict the rotation capacity of austenitic stainless steel members under constant axial load and cyclic bending. *Structures*. December 2025. Vol. 82, p. 110419. DOI 10.1016/j.istruc.2025.110419.

- CABANÉ, Albert, SENESCHAL, Tanguy, ROCA, Pere and PELÀ, Luca, 2025. Non-destructive evaluation of solid fired clay brick strength using the SonReb method. *Construction and Building Materials*. July 2025. Vol. 485, p. 141919. DOI 10.1016/j.conbuildmat.2025.141919.

- REAL, Esther, ARRAYAGO, Itsaso and MIRAMBELL, Enrique, 2025. Revolutionizing steel structures: bridging research and sustainable design for future societal impact. *Thin-Walled Structures*. November 2025. Vol. 216, p. 113609. DOI 10.1016/j.tws.2025.113609.

CIEFMA-PROCOMAME - Disseny Microestructural i Fabricació Avançada de Materials

- CABEZAS, L., BERGER, C., BRIDY, S., JIMÉNEZ-PIQUÉ, E., MORENO, P., PÖTSCHKE, J. and LLANES, L., 2025. Fracture behavior of binder jetting 3D printed cemented carbides: Influence of printing direction and testing configuration. *International Journal of Refractory Metals and Hard Materials*. April 2025. Vol. 128, p. 107069. DOI 10.1016/j.ijrmhm.2025.107069.

- CABEZAS, L., ORTIZ-MEMBRADO, L., BERGER, C., BESHARATLOO, H., VORNBERGER, A., JIMÉNEZ-PIQUÉ, E., PÖTSCHKE, J. and LLANES, L., 2025. Nanoindentation mapping of cemented carbides: Microstructure-property analysis through statistical cluster extraction. *Journal of the European Ceramic Society*. September 2025. Vol. 45, no. 12, p. 117431. DOI 10.1016/j.jeurceramsoc.2025.117431.

- FOOLADI MAHANI, S., LIU, C., RAMÍREZ, G., LIN, L.L., CABEZAS, L., WEN, X. and LLANES, L., 2025. Assessment of microstructural effects on the fatigue sensitivity of WC-Co cemented carbides by using microdimples shaped by laser ablation. *Journal of the European Ceramic Society*. September 2025. Vol. 45, no. 12, p. 117432. DOI 10.1016/j.jeurceramsoc.2025.117432.

- GARCÍA-GONZÁLEZ, Sandra, JIMÉNEZ-PIQUÉ, Emilio, ORTIZ-MEMBRADO, Laia, ALONSO, Marc, MONTINARO, Dario and MORALES, Miguel, 2026. Mechanical and microstructural evolution of Ni-YSZ electrodes in solid oxide cells after long-term operation: insights from high-speed nanoindentation mapping and Gaussian mixture model clustering. *Fuel*. June 2026. Vol. 413, p. 138158. DOI 10.1016/j.fuel.2025.138158.

- MAHANI, S. Fooladi, LIU, C., LIN, L.L., RAMÍREZ, G., WEN, X. and LLANES, L., 2025. Damage tolerance and residual fatigue strength/life of WC-Co cemented carbides. *International Journal of Refractory Metals and Hard Materials*. June 2025. Vol. 129, p. 107117. DOI 10.1016/j.ijrmhm.2025.107117.

- MORALES, Miguel, RODA, Vicente, GARCÍA-GONZÁLEZ, Sandra, TORRES, Ricardo, HUSAR, Attila and JIMÉNEZ-PIQUÉ, Emilio, 2025. Monolithic electrolyte-supported solid oxide fuel cells fabricated by gel-casting on 3D-printed moulds. *Journal of the European Ceramic Society*. September 2025. Vol. 45, no. 11, p. 117379. DOI 10.1016/j.jeurceramsoc.2025.117379.

- ORTIZ-MEMBRADO, Laia, SJÖSTRÖM, William, BARBERÀ FLICHI, Francesc, BOTERO, Carlos, TREMSIN, Anton S., MATEO, Antonio and JIMÉNEZ-PIQUÉ, Emilio, 2025. Micromechanical Characterization of 316L-V4E Steel Transitions Produced by Electron Beam Powder Bed Fusion with Dual-Hopper Alternating Layer Strategy. *Advanced Engineering Materials*. 8 October 2025. Vol. 28, no. 1. DOI 10.1002/adem.202501197.

- RAZAVI, Seyed Ali, FARGAS, Gemma, SERRANO, Isabel, LAGUNA-BERCERO, Miguel Ángel, VILELLA, Tània, LLANES, Luis, RODRÍGUEZ, Daniel, GINEBRA, Maria-Pau, LLORCA, Jordi and MORALES, Miguel, 2025a. 3D-printed Ni/γ-Al2O3 catalysts for CO2 methanation: Effect of Ni loading and sintering temperature. *Chemical Engineering Journal*. November 2025. Vol. 523, p. 168665. DOI 10.1016/j.cej.2025.168665.

- RAZAVI, Seyed Ali, FARGAS, Gemma, SERRANO, Isabel, LAGUNA-BERCERO, Miguel Ángel, VILELLA, Tània, LLANES, Luis, RODRÍGUEZ, Daniel, GINEBRA, Maria-Pau, LLORCA, Jordi and MORALES, Miguel, 2025b. Direct recycling of 3D-printed Co-YDZ catalysts for ethanol steam reforming. *Journal of Environmental Chemical Engineering*. December 2025. Vol. 13, no. 6, p. 120246. DOI 10.1016/j.jece.2025.120246.

- REZAYAT, Mohammad, MORALES, Miguel, MORADI, Mahmoud and MATEO, Antonio, 2025. Influence of laser heat input on the corrosion mitigation of laser textured AISI 301LN steel in molten carbonate salts. *Optics & Laser Technology*. August 2025. Vol. 186, p. 112692. DOI 10.1016/j.optlastec.2025.112692.

CTTC-UPC - Centre Tecnològic de Transferència de Calor

- HOPMAN, J.A., RIGOLA, J. and TRIAS, F.X., 2026. A checkerboard-free, symmetry-preserving, conservative method for magnetohydrodynamics. *Journal of Computational Physics*. January 2026. Vol. 545, p. 114473. DOI 10.1016/j.jcp.2025.114473.

- SANTOS, Daniel, CASTRO, Jesus and RIGOLA, Joaquim, 2026. Performance analysis of macroscale Concentrated Photovoltaic Thermal receivers. *Applied Thermal Engineering*. January 2026. Vol. 283, p. 129037. DOI 10.1016/j.applthermaleng.2025.129037.

- SCHILLACI, Eugenio, OLIET, Carles, VEMULA, Jagadish Babu, DUPONCHEEL, Matthieu, BARTOSIEWICZ, Yann and PLANQUART, Philippe, 2025. Numerical modeling and experimental analysis of air ejectors' transient operation in bleed-air aircraft systems. *Energy*. December 2025. Vol. 340, p. 139136. DOI 10.1016/j.energy.2025.139136.

- VERA, Jordi, ODENTHAL, Christian, SANMARTÍ, Oriol and PÉREZ-SEGARRA, Carlos D., 2026. Experimental characterisation and numerical modelling of a structured thermocline energy storage system under different operating conditions. *Journal of Energy Storage*. January 2026. Vol. 141, p. 119463. DOI 10.1016/j.est.2025.119463.

DONLL - Dinàmica no Lineal, Òptica no Lineal i Làsers

- STALIUNAS, Kestutis, 2025. Oscillator Chain: A Simple Model for Universal Description of Excitation of Waveguiding Modes in Thin Films. *Annalen der Physik*. 17 August 2025. Vol. 537, no. 10. DOI 10.1002/andp.202500219.

EC - Enginyeria de la Construcció

- BOIX-COTS, David, IKUMI, Tai, LOZANO-GALANT, Fidel and DE LA FUENTE, Albert, 2025. Optimizing the construction process: State-of-art, innovations, and potential benefits of temperature match curing. *Structural Concrete*. 19 June 2025. Vol. 26, no. 6, p. 7312–7325. DOI 10.1002/suco.70199.

- BOIX-COTS, David, IKUMI, Tai, TOŠIĆ, Nikola and DE LA FUENTE, Albert, 2026. Sensor data-driven decision support system for real-time optimization and impact assessment in concrete construction. *Automation in Construction*. January 2026. Vol. 181, p. 106685. DOI 10.1016/j.autcon.2025.106685.

- MONSERRAT-LÓPEZ, Andrea, BAIRÁN, Jesús Miguel, DE LA FUENTE, Albert and FERNÁNDEZ RUIZ, Miguel, 2025. Resistance partial factor calibration for SFRC elements without shear reinforcement subjected to punching shear according to EN 1992-1-1:2023. *Engineering Structures*. November 2025. Vol. 343, p. 121219. DOI 10.1016/j.engstruct.2025.121219.

- MONSERRAT-LÓPEZ, Andrea, NOGALES ARROYO, Alejandro, VIULA FARIA, Duarte M., BRANTSCHEN, Fabio and FERNÁNDEZ RUIZ, Miguel, 2026. Membrane effects in reinforced concrete: From experimental evidence to numerical and analytical modelling. *Engineering Structures*. January 2026. Vol. 347, p. 121710. DOI 10.1016/j.engstruct.2025.121710.

- NIKOLIĆ, Jelena, TOŠIĆ, Nikola, MURCIA–DELSO, Juan and KOSTIĆ, Svetlana M., 2025. Data–driven nonlinear finite element modelling of stub recycled aggregate concrete-filled steel tube columns under axial compression. *Construction and Building Materials*. December 2025. Vol. 505, p. 144755. DOI 10.1016/j.conbuildmat.2025.144755.

- NOGALES, Alejandro, GALEOTE, Eduardo, AIDAROV, Stanislav, QUIJANO, Nadia and DE LA FUENTE, Albert, 2025. On the ductility of lightly reinforced steel fibre reinforced concrete shallow beams subjected to flexure: Experimental evidences. *Engineering Structures*. November 2025. Vol. 343, p. 121237. DOI 10.1016/j.engstruct.2025.121237.

- SADROLODABAEE, Payam, CLARAMUNT, Josep, MONSERRAT-LÓPEZ, Andrea, AGUADO, Antonio and DE LA FUENTE, Albert, 2025. Low-carbon cementitious paving systems with ladle furnace slag and fine recycled aggregate: A multi-scale

experimental study. *Construction and Building Materials*. September 2025. Vol. 490, p. 142547. DOI 10.1016/j.conbuildmat.2025.142547.

- TOŠIĆ, Nikola, BAJIĆ, Petar, LIU, Guanzhi, NOGALES, Alejandro and DE LA FUENTE, Albert, 2025. Experimental validation of the short- and long-term structural performance of macro-synthetic fibre reinforced concrete beams with minimum longitudinal reinforcement. *Construction and Building Materials*. November 2025. Vol. 499, p. 144051. DOI 10.1016/j.conbuildmat.2025.144051.

- VALVERDE-BURNEO, David, GARCÍA-TRONCOSO, Natividad and SEGURA, Ignacio, 2025. Influence of material and design parameters on the mechanical performance and specific energy absorption of auxetic HPCC. *Construction and Building Materials*. December 2025. Vol. 505, p. 144778. DOI 10.1016/j.conbuildmat.2025.144778.

- VALVERDE-BURNEO, David, GARCÍA-TRONCOSO, Natividad, SEGURA, Ignacio, GARCÍA-LABORDA, Manuel, SANTILLÁN, Ninel, SANCHEZ, Luis and FRANCO, Valeria, 2025. Experimental and theoretical analysis of auxetic cementitious composite: A comparative study with recycled and virgin steel fibers. *Journal of Building Engineering*. May 2025. Vol. 101, p. 111822. DOI 10.1016/j.jobe.2025.111822.

ENCORE - Energy Catalysis Process Reaction Engineering

- AGRELO-LESTÓN, Asier, SOLER, Lluís and LLORCA, Jordi, 2025. Pt/TiO2 Prepared by Mechanochemistry Boosts Photocatalytic Production of Hydrogen. *ChemCatChem*. 27 May 2025. Vol. 17, no. 15. DOI 10.1002/cctc.202500538.

- CHEN, Yufen, AGRELO-LESTÓN, Asier, BURGUÉS-CEBALLOS, Ignasi, LLORCA, Jordi and SOLER, Lluís, 2025. Bimetallic Nanoparticles as Cocatalysts for Photocatalytic Hydrogen Production. *Advanced Functional Materials*. 11 July 2025. Vol. 36, no. 21. DOI 10.1002/adfm.202506279.

- LU, Xuan, GARCIA, Xènia, SERRANO, Isabel, BISET-PEIRÓ, Martí, YU, Jing, LI, Junshan, ARBIOL, Jordi, CABOT, Andreu and LLORCA, Jordi, 2025. Cu and Ga dual sites on Ce0.9Zr0.1O2 for CO2 hydrogenation to methanol. *Journal of Catalysis*. October 2025. Vol. 450, p. 116295. DOI 10.1016/j.jcat.2025.116295.

- MARÍN, Enrique, VENDRELL, Xavier and LLORCA, Jordi, 2025. Pd Supported on CeO2 Nanostructures Prepared by Planetary Ball Milling under a Modified

Atmosphere for Catalytic Oxidation of CO. *ACS Applied Nano Materials*. 4 June 2025. Vol. 8, no. 23, p. 12151–12163. DOI 10.1021/acsanm.5c01769.

- MIRZAY-SHAHIM, Maahin, NABAHAT, Mehran, PASCUA-SOLÉ, Laia, SERRANO, Isabel, LUCENTINI, Ilaria, GARCIA, Xènia, ARMENGOL-PROFITÓS, Marina, AGRELO-LESTÓN, Asier, BURGUÉS-CEBALLOS, Ignasi, DIVINS, Núria J., VILLAR-GARCIA, Ignacio J., PÉREZ-DIESTE, Virginia, ESCUDERO, Carlos, MARINI, Carlo, LLORCA, Jordi, PINEDA, Eloi, BRUNA, Pere and SOLER, Lluís, 2025. Tuning Amorphous-Crystalline Catalytic Interfaces by Mechanochemistry: Cu-Based Metallic Glasses Coupled with Ceria for CO Oxidation. *Advanced Materials*. 10 November 2025. DOI 10.1002/adma.202511305.

GEMMA - Grup d'Enginyeria i Microbiologia del Medi Ambient

- ALTAMIRA-ALGARRA, Beatriz, GARCIA, Joan and GONZALEZ-FLO, Eva, 2025. Cyanobacteria microbiomes for bioplastic production: Critical review of key factors and challenges in scaling from laboratory to industry set-ups. *Bioresource Technology*. April 2025. Vol. 422, p. 132231. DOI 10.1016/j.biortech.2025.132231.

- ALTAMIRA-ALGARRA, Beatriz, SUN, Lin, SAN LEÓN GRANADO, David, ROMERO-MORILLO, Lucía, VURRO, Livia, NOGALES, Juan, GONZALEZ-FLO, Eva and GARCIA, Joan, 2025. Robust strategy for bioplastic production from cyanobacteria-enriched microbiomes: insights from gene expression and population dynamics. *Chemical Engineering Journal*. August 2025. Vol. 517, p. 164196. DOI 10.1016/j.cej.2025.164196.

- ÁLVAREZ-GONZÁLEZ, Ana, CASTRO, Iacy M.P., ORTIZ, Antonio, DÍEZ-MONTERO, Rubén, PASSOS, Fabiana, GARFÍ, Marianna and UGGETTI, Enrica, 2025. Environmental and economic benefits of using microalgae grown in wastewater as biofertilizer for lettuce cultivation. *Bioresource Technology*. May 2025. Vol. 424, p. 132230. DOI 10.1016/j.biortech.2025.132230.

- ÁLVAREZ-GONZÁLEZ, Ana, SERRANO, Lydia, GORCHS, Gil and UGGETTI, Enrica, 2025. Exploring the biostimulant potential of Scenedesmus sp. grown in wastewater: impacts on plant growth and photosynthetic activity of lettuce. *Chemosphere*. August 2025. Vol. 382, p. 144494. DOI 10.1016/j.chemosphere.2025.144494.

- CANO-LARROTTA, Ana, MASSACCESI, Luisa, UGGETTI, Enrica and CUCINA, Mirko, 2025. Unveiling amending properties of biosolids from constructed wetland

systems: a comparative study. *Science of The Total Environment*. October 2025. Vol. 999, p. 180365. DOI 10.1016/j.scitotenv.2025.180365.

- CORREA, Sandra, MONTEGIOVE, Nicolò, FERRER, Ivet, PASSOS, Fabiana, GIGLIOTTI, Giovanni and PEZZOLLA, Daniela, 2025. Biorefinery approach to olive pomace management: Digestate application as an organic fertiliser to improve soil health. *Journal of Environmental Management*. December 2025. Vol. 395, p. 127970. DOI 10.1016/j.jenvman.2025.127970.

- CORREA, Sandra, PASSOS, Fabiana, RIBA-MOLINER, Marta, FORNS, Núria, VILA, Joaquim and FERRER, Ivet, 2025. Bio-based textile dyes and biogas recovery from olive pomace in a biorefinery approach. *Journal of Environmental Chemical Engineering*. December 2025. Vol. 13, no. 6, p. 120105. DOI 10.1016/j.jece.2025.120105.

- DE CASTRO, Iacy Maria Pereira, DE ALENCAR NEVES, Thiago, ROSA, André Pereira, DA CUNHA, Fernando França and PASSOS, Fabiana, 2025. Long-term assessment of anaerobic co-digestion of food waste and microalgae: Process stabilization, methane yield and agronomic properties of digestate. *Algal Research*. March 2025. Vol. 86, p. 103947. DOI 10.1016/j.algal.2025.103947.

- FERNÁNDEZ MONTENEGRO, J.M., PÉREZ COUÑAGO, I., IGLESIAS MOREIRA, S., RODRÍGUEZ LORENZO, F., VILLAR SOLA, P., PANCORBO GONZÁLEZ, E., ALTAMIRA-ALGARRA, B., GARCIA, J., MUÍÑOS LANÍN, S. and GONZALEZ-FLO, E., 2025. Artificial intelligence based hyperspectral biomass estimator for cyanobacteria cultivation. *Bioresource Technology*. November 2025. Vol. 435, p. 132943. DOI 10.1016/j.biortech.2025.132943.

- GARFÍ, Marianna, REQUEJO-CASTRO, David and VILLANUEVA, Cristina M., 2025. Social life cycle assessment of drinking water: Tap water, bottled mineral water and tap water treated with domestic filters. *Environmental Impact Assessment Review*. March 2025. Vol. 112, p. 107815. DOI 10.1016/j.eiar.2025.107815.

- LAGE, Artai, BERRENDERO GÓMEZ, Esther, GARCÍA-ABAD, Laura, MARTÍNEZ-GUTIÉRREZ, Cristina, GARCIA, Joan and GONZALEZ-FLO, Eva, 2025. Assessment of Polyhydroxybutyrate Production by Cyanobacteria Strains Isolated from Environmental Water Sources Using a Secondary Effluent. *ACS ES&T Water*. 7 November 2025. Vol. 5, no. 12, p. 7267–7278. DOI 10.1021/acsestwater.5c00677.

- MURILLO, Ana Maria, KOTAMRAJU, Amulya, LENS, Piet N.L., FERRER, Ivet, UGGETTI, Enrica and DE MORAIS, Etiele Greque, 2025. Application of selenium-enriched biomass from a microalgal consortium cultivated in domestic wastewater as a biofertilizer: effect of selenium supplementation. *Algal Research*. October 2025. Vol. 91, p. 104320. DOI 10.1016/j.algal.2025.104320.

- RUALES, Evelyn, BELLVER, Marta, ÁLVAREZ-GONZÁLEZ, Ana, CARVALHO FONTES SAMPAIO, Igor, GARFI, Marianna and FERRER, Ivet, 2025. Carotenoids and biogas recovery from microalgae treating wastewater. *Bioresource Technology*. July 2025. Vol. 428, p. 132427. DOI 10.1016/j.biortech.2025.132427.

- RUALES, Evelyn, GÓMEZ-SERRANO, Cintia, MORILLAS-ESPAÑA, Ainoa, GARFÍ, Marianna, GONZÁLEZ-LÓPEZ, Cynthia Victoria and FERRER, Ivet, 2025. Microalgae-based biorefinery for biostimulant and biogas production: An integrated approach for resource recovery. *Algal Research*. October 2025. Vol. 91, p. 104323. DOI 10.1016/j.algal.2025.104323.

- ZIEGLER-RODRIGUEZ, Kurt, JOSA, Irene, CASTRO, Liliana, ESCALANTE, Humberto, VERA-MERCADO, Erik and GARFÍ, Marianna, 2025. Social life cycle assessment of low-tech digesters for biogas and biofertiliser production in small-scale farms. *Sustainable Production and Consumption*. March 2025. Vol. 54, p. 303–323. DOI 10.1016/j.spc.2025.01.004.

MCIA - Motion Control and Industrial Applications Research Group

- BOGARRA, S., ORTEGA-REDONDO, J.A., MORENO-EGUILAZ, M. and RIBA, J.R., 2025. Fitting of an electric arc model for high voltage aircraft power systems using a large-scale fault dataset. *IEEE Transactions on Dielectrics and Electrical Insulation*. 2025. P. 1–1. DOI 10.1109/tdei.2025.3633235.

- RIBA, Jordi-Roger, 2025. On the Accuracy of the Surface Voltage Gradient Calculation on Round Conductors Using Standard Formulas. *Electric Power Systems Research*. October 2025. Vol. 247, p. 111794. DOI 10.1016/j.epsr.2025.111794.

- RIBA, Jordi-Roger, 2026. Effect of pressure and supply frequency on the mean free path and mean energy of corona-generated electrons in air. *Measurement*. January 2026. Vol. 258, p. 119184. DOI 10.1016/j.measurement.2025.119184.

- RIBA, Jordi-Roger, SONI, Ankit and MORENO-EGUILAZ, Manuel, 2025. Emissivity-temperature dependence of Cu and Al conductors up to about 250°C and

its effects. *Sensors and Actuators A: Physical*. December 2025. Vol. 396, p. 117168. DOI 10.1016/j.sna.2025.117168.

R2EM - Resource Recovery and Environmental Management

- CRESPO, Óscar, LÓPEZ, Julio, HERMASSI, Mehrez, GIBERT, Oriol, CAMA, Jordi and CORTINA, José Luis, 2026. Acid recovery with diffusion dialysis to improve rare earth extraction economics. *Separation and Purification Technology*. April 2026. Vol. 387, p. 136672. DOI 10.1016/j.seppur.2025.136672.

- LÓPEZ, Julio, CULCASI, Andrea, FERNÁNDEZ DE LABASTIDA, Marc, TAMBURINI, Alessandro, MICALE, Giorgio, CIPOLLINA, Andrea and CORTINA, Jose Luis, 2025. Integration of nanofiltration, ion exchange, and electrodialysis with bipolar membranes for the valorisation of brines: From seawater desalination plants to on-site chemicals production facilities. *Journal of Environmental Management*. May 2025. Vol. 381, p. 125119. DOI 10.1016/j.jenvman.2025.125119.

- LUO, D., LEHMANN, J., PAVÓN, S., BERTAU, M., RÍOS, G., MEJÍA, A., HERMASSI, M., LOPEZ, J. and CORTINA, J.L., 2025. Impact of operational parameters on arsenic impurities in Sb2O3(s) and Bi2O3(s) recovery from copper electrorefining: A viable alternative to refiners? *Journal of Environmental Chemical Engineering*. October 2025. Vol. 13, no. 5, p. 118475. DOI 10.1016/j.jece.2025.118475.

- MOGHADAMFAR, Tanaz, ROCHA DE OLIVEIRA, Rodrigo, CORTINA, José Luis, DEL VALLE, Luis J., DE JUAN, Anna and REIG, Mònica, 2025. Optimizing Nanofiltration Membrane Layer-by-Layer Modification: Chemometric and Morphological Insights. *ACS Applied Polymer Materials*. 26 June 2025. Vol. 7, no. 13, p. 8471–8485. DOI 10.1021/acsapm.5c00815.

- PABBY, Anil K., SASTRE, Ana María and CORTINA, José Luis, 2025. Cleaner processing techniques for rubidium extraction and recovery: A critical review. *Journal of Cleaner Production*. September 2025. Vol. 525, p. 146523. DOI 10.1016/j.jclepro.2025.146523.

- VECINO, X., MARTÍNEZ-ARCOS, A., CRUZ, J.M., MOLDES, A.B., CORTINA, J.L. and REIG, M., 2025. Exploring electrodialysis membrane technology for the purification of biosurfactant extracts and recovery of lactic acid from corn steep water. *Separation and Purification Technology*. December 2025. Vol. 376, p. 133889. DOI 10.1016/j.seppur.2025.133889.

SAC - Sistemes Avançats de Control

- ARCILA-OSORIO, Mateo, DESTRO, Francesco, OCAMPO-MARTINEZ, Carlos, LLORCA, Jordi and BRAATZ, Richard D., 2026. A benchmark simulator for advanced control of ethanol steam reforming. *Renewable Energy*. January 2026. Vol. 256, p. 124743. DOI 10.1016/j.renene.2025.124743.

- CABALLÉ, Josep, SEGOVIA, Pablo, OCAMPO-MARTINEZ, Carlos and QUIJANO, Nicanor, 2026. Large-scale EV charging coordination: a detailed exploration of mean-field and reinforcement learning approaches. *Control Engineering Practice*. March 2026. Vol. 168, p. 106669. DOI 10.1016/j.conengprac.2025.106669.

- CECILIA, Andreu, CATALÁN-MARTÍNEZ, David, ESCOLÁSTICO, Sonia, SERRA, Maria, SERRA, Jose M. and COSTA-CASTELLÓ, Ramon, 2025. Control-oriented modeling and observation of a single cell proton ceramic electrochemical reactor for single-stage ammonia cracking to compressed hydrogen. *International Journal of Hydrogen Energy*. August 2025. Vol. 161, p. 150557. DOI 10.1016/j.ijhydene.2025.150557.

- CECILIA, Andreu, ZOBOLI, Samuele, ASTOLFI, Daniele, SERRES, Ulysse and ANDRIEU, Vincent, 2026. Generalized Lyapunov Conditions for K-Contraction: Analysis and Feedback Design. *IEEE Transactions on Automatic Control*. February 2026. Vol. 71, no. 2, p. 1022–1037. DOI 10.1109/tac.2025.3605299.

- CHEN, Mingrui, BATLLE, Carles, ESCACHX, Bryan, COSTA-CASTELLÓ, Ramon and NA, Jing, 2025. Multi-objective identification of a metal hydride tank lumped parameter model. *Journal of Energy Storage*. December 2025. Vol. 139, p. 118759. DOI 10.1016/j.est.2025.118759.

- CHEN, Mingrui, CECILIA, Andreu, NA, Jing, BATLLE, Carles and COSTA-CASTELLÓ, Ramon, 2026. Metal Hydride Storage Tank State of Charge Estimation: A Switched Observer Approach. *IEEE Transactions on Control Systems Technology*. January 2026. Vol. 34, no. 1, p. 74–85. DOI 10.1109/tcst.2025.3605666.

- CHEN, Mingrui, COSTA-CASTELLÓ, Ramon, BATLLE, Carles and NA, Jing, 2025. Metal hydride storage tanks real-time state of charge estimation based on nonlinear observer with a non-observable subsystem. *Applied Energy*. December 2025. Vol. 399, p. 126448. DOI 10.1016/j.apenergy.2025.126448.

- MINGUEZ, Beatriz Garcia, CARDONA, Pol, VALIÑO, Luis, OCAMPO-MARTINEZ, Carlos, SIEMON, Lukas and SERRA, Maria, 2026. Techno-economic analysis of a renewable hydrogen refuelling station network: The case study of Spain. *International*

Journal of Hydrogen Energy. January 2026. Vol. 198, p. 152325. DOI 10.1016/j.ijhydene.2025.152325.

- PULESTON, Thomas, CECILIA, Andreu, CLEMENTE, Alejandro, COSTA-CASTELLÓ, Ramon and SERRA, Maria, 2025. Kazantzis-Kravaris/Luenberger observer for the joint estimation of vanadium flow battery concentrations and side-reaction rates. *Journal of Energy Storage*. December 2025. Vol. 139, p. 118760. DOI 10.1016/j.est.2025.118760.

- ROA, Alexandra, LÓPEZ, Julio and CORTINA, José Luis, 2025. Integration of electrodialysis with bipolar membranes to promote circularity in acidic mine waters valorisation routes: Addressing the sulphate challenge. *Journal of Environmental Chemical Engineering*. December 2025. Vol. 13, no. 6, p. 119837. DOI 10.1016/j.jece.2025.119837.

- ROMERO-BEN, Luis, IROFTI, Paul, STOICAN, Florin and PUIG, Vicenç, 2026. Dual Unscented Kalman Filter Architecture for Sensor Fusion in Water Networks Leak Localization. *IEEE Transactions on Control Systems Technology*. January 2026. Vol. 34, no. 1, p. 343–354. DOI 10.1109/tcst.2025.3610975.

APC assignades a doctorands i altre personal investigador

- Agulló, F., Gutierrez-Torre, A., Torres, J., & Berral, J. Ll. (2025). Enhancing the output of time series forecasting algorithms for cloud resource provisioning. Future Generation Computer Systems, 170, 107833. https://doi.org/10.1016/j.future.2025.107833

- Ares de Parga, S., Tezaur, R., Hernández, C. G., & Farhat, C. (2026). Nonlinear projection-based model order reduction with machine learning regression for closure error modeling in the latent space. Computer Methods in Applied Mechanics and Engineering, 448, 118443. https://doi.org/10.1016/j.cma.2025.118443

- Arias-García, F. I., Lozano-Hernandez, N., Maspoch, M. L., & Fontdecaba, E. (2025a). Effect of acrylic structural adhesive as a joint reinforcement on film deformation during the thermoforming process for In-Mold electronic devices. Advanced Engineering Materials, 27(12). https://doi.org/10.1002/adem.202402623

- Arias-García, F. I., Lozano-Hernandez, N., Maspoch, M. L., & Fontdecaba, E. (2025b). Impact of structural adhesive hybridization strategy on the performance of In-Mold electronics devices across thermoforming and injection molding. Advanced Engineering Materials, 27(21). https://doi.org/10.1002/adem.202501294

- Asensio-Jurado, L., Argilés, M., Vinuela-Navarro, V., Quevedo-Junyent, L., & Levi, D. M. (2025). Efficacy of patching combined with action video games in amblyopic children aged 4–10 years: A randomised clinical trial. Ophthalmic and Physiological Optics, 45(6), 1389–1398. https://doi.org/10.1111/opo.13534

- Baldomà-Mitjans, P., Cecilia, A., Casadei, G., Astolfi, D., & Puig, V. (2025). A masking protocol for nonlinear and incrementally passive average consensus algorithms. IEEE Control Systems Letters, 9, 1928–1933. https://doi.org/10.1109/lcsys.2025.3585996

- Barrera, J., Kosmidis, L., Tabani, H., Abella, J., & Cazorla, F. J. (2025). Hardware support for contention tracking in CPU and GPU last-level cache. Journal of Systems Architecture, 169, 103591. https://doi.org/10.1016/j.sysarc.2025.103591

- Blanco, O. S., Simon, A. B., Simoni, P. E. N., Contreras-Benito, L., Buitrago-Leiva, J. N., Climent-Salazar, P., Liaño de la Fuente, E., Camps, A., Di Pasquale, G., Wijnen, M., & Grande, D. P. (2025). Novel magnetic attitude control system for SmallSats with low-thrust propulsion systems. Aerospace Science and Technology, 166, 110608. https://doi.org/10.1016/j.ast.2025.110608

- Buitrago-Leiva, J. N., El-Khayati-Ramouz, M., Camps, A., & Ruiz-de-Azua, J. A. (2025). Operational and regulatory assessment for satellites recycling. Space Policy, 74, 101705. https://doi.org/10.1016/j.spacepol.2025.101705

- Carreño, M., Song, J., Gomis-Bellmunt, O., & Griñó, R. (2025). Design-Oriented large-signal stability analysis of synchronous reference frame phase-locked loop. IEEE Transactions on Power Delivery, 40(3), 1235–1243. https://doi.org/10.1109/tpwrd.2024.3454533

- Castillo-DR, R., Paris-Viviana, O., & Bosch, M. (2026). Thermal performance evaluation of a double skin Façade with latticework solar protection: A case study in a humid tropical climate (Panama). Energy and Buildings, 351, 116747. https://doi.org/10.1016/j.enbuild.2025.116747

- Chavez, J.-P., Murcia-Delso, J., & López-Almansa, F. (2025). Probabilistic framework for post-earthquake functionality assessment of seismically isolated hospital buildings using Bayesian networks. Engineering Structures, 328, 119633. https://doi.org/10.1016/j.engstruct.2025.119633

- Chen, Q., Barbat, G. B., & Cervera, M. (2025). Finite element buildability analysis of 3D printed concrete including failure by elastic buckling and plastic flow. Engineering Structures, 340, 120675. https://doi.org/10.1016/j.engstruct.2025.120675

- Cherati, D. Y., Vaunat, J., Solé, A. G., Plua, C., Ngoc Vu, M., & Armand, G. (2025). Hydromechanical simulation of argillaceous rocks: From laboratory tests to drift excavation. Geomechanics for Energy and the Environment, 43, 100714. https://doi.org/10.1016/j.gete.2025.100714

- Cortes-Goicoechea, M., Mohandas-Daryanani, T., Muñoz-Tapia, J. L., & Bautista-Gomez, L. (2025). The impact of connectivity and software in Ethereum validator performance. Cluster Computing, 28(6). https://doi.org/10.1007/s10586-025-05153-y

- Cruz, G., Quirós, F., Serrano, I., Franco, L., Fargas, G., Llorca, J., & Roa, J. J. (2025). Phase transformation optimization from boehmite to γ-Al2O3 and duplex microstructure: Γ-/δ-Al2O3 to enhance the catalytic applications of 3D-printed scaffolds. Journal of Alloys and Compounds, 1039, 183390. https://doi.org/10.1016/j.jallcom.2025.183390

- de la Cruz‐Coronas, À., & Russo, B. (2025). Synthetic sewer networks for pluvial flood assessment in urban areas: A data gap filling methodology. Hydrological Processes, 39(12). https://doi.org/10.1002/hyp.70365

- Diaz, N. G., Zola, E., & Martin-Escalona, I. (2026). A novel framework for scalable and low-complexity wi-fi RTT positioning for IoT devices. IEEE Internet of Things Journal, 13(7), 14188–14202. https://doi.org/10.1109/jiot.2025.3648310

- Eiximeno, B., Miró, A., Kutz, J. N., Rodriguez, I., & Lehmkuhl, O. (2025). On the integration of geometry agnostic variational-autoencoders into large-scale SVD based models. Computers &Amp; Fluids, 302, 106797. https://doi.org/10.1016/j.compfluid.2025.106797

- Eiximeno, B., Sanchis-Agudo, M., Miró, A., Rodriguez, I., Vinuesa, R., & Lehmkuhl, O. (2025). On deep-learning-based closures for algebraic surrogate models of turbulent flows. Journal of Fluid Mechanics, 1020. https://doi.org/10.1017/jfm.2025.10610

- Falguera-Garcia, J., Barja-Martinez, S., Aragüés-Peñalba, M., Verez, D., & Izquierdo-Martinez, E. (2026). A decentralized optimization framework for

peer-to-peer trading in multivector energy systems. Sustainable Energy Technologies and Assessments, 85, 104784. https://doi.org/10.1016/j.seta.2025.104784

- Farshbaf, S., Dialami, N., Cervera, M., Bakhshan, H., & Navid Chakherlou, T. (2025). Enhancing the mechanical performance of additively manufactured auxetic structures through design modifications: Experimental and numerical analysis. Progress in Additive Manufacturing, 10(7), 4143–4164. https://doi.org/10.1007/s40964-025-01062-z

- Felgueiras Luís, D., Viladegut, A., Chazot, O., & Camps, A. (2026). Radio wave propagation through a characterized CO2 plasma flow. Aerospace Science and Technology, 168, 111269. https://doi.org/10.1016/j.ast.2025.111269

- Felgueiras Luís, D., Viladegut, A., Schlachter, S. I., Dalban-Canassy, M., W. Oswald, J., Herdrich, G., Camps, A., & Chazot, O. (2025). Magnetohydrodynamic effects on radio signal propagation in a plasma flow. Experiments in Fluids, 66(11). https://doi.org/10.1007/s00348-025-04136-4

- Franco-Panadés, G., Llatje, Ò., Giralt, L. P., & Jofre-Roca, L. (2026). GeoLSTM: A road geometry-aware neural network model for spatio-temporal highway traffic speed and intensity forecasting. Expert Systems with Applications, 305, 130887. https://doi.org/10.1016/j.eswa.2025.130887

- Garcia-Reyes, L. A., Zuluaga, J. R., & Naredo, J. L. (2026). A new methodology for ultra-fast and accurate statistical EMT analysis in electric power-systems. Electric Power Systems Research, 252, 112392. https://doi.org/10.1016/j.epsr.2025.112392

- Itatani, R., & Pelechano, N. (2025). Social crowd simulation: Improving realism with social rules and gaze behavior. Computers &Amp; Graphics, 131, 104286. https://doi.org/10.1016/j.cag.2025.104286

- Jazi, H. M., Khorasani, R. R., Fani, R., Adib, E., Zanchetta, P., Wheeler, P., Alonso, J. M., Velasco-Quesada, G., & Martínez-García, H. (2026). A soft switched three level quasi z-source converter with coupled inductor based high conversion ratio and continuous input current for renewable energy application. IEEE Transactions on Power Electronics, 41(4), 6007–6025. https://doi.org/10.1109/tpel.2025.3620744

- Martí-Florences, M., Cecilia, A., Ortega, R., Bobtsov, A., & Costa-Castelló, R. (2025). OCV Estimation in electrochemical batteries with an unknown linear model and finite

excitation. Journal of Energy Storage, 132, 117665. https://doi.org/10.1016/j.est.2025.117665

- Mateu-Barriendos, E., Alican, O., Renedo, J., Collados-Rodriguez, C., Martin Almenta, M., Nuño Martinez, E., Gomis-Bellmunt, O., & Prieto-Araujo, E. (2025). Power oscillation damping controllers for grid-forming power converters in modern power systems. IEEE Transactions on Power Systems, 40(6), 5130–5143. https://doi.org/10.1109/tpwrs.2025.3562269

- Mathias, P. M., Javier, M. S., & Felipe, M. L. R. (2025). Virtual worlds in AECO operations: Towards a human-centric framework. Automation in Construction, 180, 106529. https://doi.org/10.1016/j.autcon.2025.106529

- Mhatre, S., Adelantado, F., Ramantas, K., & Verikoukis, C. (2025). Transfer learning applied to deep reinforcement learning for 6G resource management in intra- and inter-slice ran-edge domains. IEEE Transactions on Consumer Electronics, 71(2), 6659–6672. https://doi.org/10.1109/tce.2025.3553407

- Miao, S., Gangolells, M., & Tejedor, B. (2025a). Investigating students' subjective comfort with window-airing during the cold season: Thermal sensation, humidity, air movement, and perceived air quality. Building and Environment, 278, 112988. https://doi.org/10.1016/j.buildenv.2025.112988

- Miao, S., Gangolells, M., & Tejedor, B. (2025b). Validating single-sided natural ventilation models for educational buildings. Building and Environment, 282, 113329. https://doi.org/10.1016/j.buildenv.2025.113329

- Moghadamfar, T., López, J., Cortina, J. L., del Valle, L. J., & Reig, M. (2025). Optimized ion selectivity in nanofiltration membranes via poly(allylamine hydrochloride) (PAH) and poly (styrene sulfonate) (PSS) layer-by-layer self-assembly. Journal of Water Process Engineering, 77, 108553. https://doi.org/10.1016/j.jwpe.2025.108553

- Montero-Vega, M., & Estrada, M. (2025). Moving-micro hubs: Redefining last-mile logistics with autonomous hub vehicles (AHVs) and delivery robots (ADRs). Transportation Research Part E: Logistics and Transportation Review, 203, 104229. https://doi.org/10.1016/j.tre.2025.104229

- Montero-Vega, M., Estrada, M., & Thigulla, D. T. (2025). Understanding the impact of socio-demographic differences on acceptance of last-mile delivery technologies: A

comparative analysis. Journal of Transport Geography, 126, 104244. https://doi.org/10.1016/j.jtrangeo.2025.104244

- Morales-Flores, P., & Marmolejo-Duarte, C. (2025). Understanding the relationship between public space social capital expressions and pedestrian-oriented design. A case study within the superblock action plan in Barcelona. Cities, 162, 105968. https://doi.org/10.1016/j.cities.2025.105968

- Mustapa, M. A. C., Baba, Y., Kallas, Z., Garcia, M. B., Gonzalez, C. E., & López-Mas, L. (2025). Consumers' attitudes toward and willingness to pay for organic aquaculture products: Evidence from Spain. Aquaculture, 599, 742126. https://doi.org/10.1016/j.aquaculture.2025.742126

- Oliveros-Sepúlveda, D., Bascompta-Massanés, M., & Franco-Sepúlveda, G. (2025). Environmental and mine closure costs in the block sequencing of a coal deposit. The Extractive Industries and Society, 23, 101668. https://doi.org/10.1016/j.exis.2025.101668

- Pérez Cambra, M. del M., Martínez Santafé, M. D., & Roca Cladera, J. (2025). Exploring the mitigation of compound events in Barcelona: Urban water scarcity, flood risk and reduction of surface temperatures through water-sensitive urban design. Urban Climate, 59, 102298. https://doi.org/10.1016/j.uclim.2025.102298

- Pons, G., Bilalli, B., Abelló, A., & Blanco Sánchez, S. (2025). On the use of trajectory data for tackling data scarcity. Information Systems, 130, 102523. https://doi.org/10.1016/j.is.2025.102523

- Recasens, P. G., Horváth, Á., Gutierrez-Torre, A., Torres, J., Ll Berral, J., & Pejó, B. (2026). FRIDA: Free-rider detection using privacy attacks. Journal of Information Security and Applications, 97, 104357. https://doi.org/10.1016/j.jisa.2025.104357

- Sabán-Fosch, A., Diez-Lledó, E., Soria, M., & Sureda, M. (2025). Towards the first European autonomous flight safety system- software and hardware design. Acta Astronautica, 236, 417–431. https://doi.org/10.1016/j.actaastro.2025.07.004

- Sabri, M., Riera, M., & González, A. (2025). Hamun: An approximate computing method to prolong the lifespan of ReRAM-based accelerators. Journal of Systems Architecture, 166, 103444. https://doi.org/10.1016/j.sysarc.2025.103444

- Sabri, M., Riera, M., & González, A. (2026). ARAS: Adaptive low-cost ReRAM-based accelerator for DNNs. Journal of Systems Architecture, 172, 103668. https://doi.org/10.1016/j.sysarc.2025.103668

- Santana, J., Magrinyà, F., & Maspoch, M. L. (2025). Closing the loop of flexible plastic packaging in Spain: A review of the role of extended producer responsibility and circular economy strategies. Journal of Cleaner Production, 504, 145139. https://doi.org/10.1016/j.jclepro.2025.145139

- Serra, M., García-Marro, F., Cinca, N., Tarrés, E., Jiménez-Piqué, E., & Llanes, L. (2025). Fracture and fatigue behavior of a γ-phase containing WC-Co cemented carbide. Journal of the European Ceramic Society, 45(11), 117376. https://doi.org/10.1016/j.jeurceramsoc.2025.117376

- Tariq, S., Luna, E. R., Bruin, X. M., Diaz, R., Martrat, J., & Trakadas, P. (2025). A survey on 5G private and B5G network threats and safeguarding AI-based security mechanisms through the layered analysis. Computer Networks, 271, 111594. https://doi.org/10.1016/j.comnet.2025.111594

- Valerio, B. C., Lacerda, V. A., Cheah-Mane, M., Gebraad, P., & Gomis-Bellmunt, O. (2025). An optimal power flow tool for AC/DC systems, applied to the analysis of the north sea grid for offshore wind integration. IEEE Transactions on Power Systems, 40(5), 4278–4291. https://doi.org/10.1109/tpwrs.2025.3533889

- Vergés, R., Gaspar, K., & Forcada, N. (2026a). A novel approach to forecasting product end-of-life circularity from material compositions using a hybrid autoencoder-predictor model. Resources, Conservation and Recycling, 224, 108573. https://doi.org/10.1016/j.resconrec.2025.108573

- Vergés, R., Gaspar, K., & Forcada, N. (2026b). Large-scale analysis of environmental and circularity metrics in construction products through automated data extraction using large language models. Environmental Impact Assessment Review, 117, 108243. https://doi.org/10.1016/j.eiar.2025.108243

- Zapata-Franco, A. M., & Vargas-Alzate, Y. F. (2025). Gender integration in seismic risk assessment: Towards equitable resilience in Colombia. Natural Hazards, 121(8), 9405–9442. https://doi.org/10.1007/s11069-025-07112-7

- Zhang, N., Guerra, E., & Grau, A. (2026). AttBEV: Enhancing multi-modal 3D object detection with CBAM attention in BEVFusion for autonomous driving. IEEE Robotics and Automation Letters, 11(2), 1322–1329. https://doi.org/10.1109/lra.2025.3641130

- Albors, L., Marcello, J., & Marqués, F. (2025). BiomSHARP: Biomass super-resolution for high accuracy prediction. IEEE Transactions on Geoscience and Remote Sensing, 63, 1–18. https://doi.org/10.1109/tgrs.2025.3636434

- Baggi, N., Léaustic, A., Rebilly, J.-N., Mavré, F., Rivière, E., Herrero, C., Maurel, F., & Yu, P. (2025). Three-state molecular switch based on terarylene photo- or redox-induced reversible isomerisation. Chemical Science, 16(27), 12499–12509. https://doi.org/10.1039/d5sc02845k

- Carmen De Lama-Odría, M. del, Alonso, P., Valle-Mendoza, J. D., Puiggalí, J., Franco, L., & del Valle, L. J. (2026). Doxycycline and carbonated Hydroxyapatite: A synergistic approach to target cancer cells − An in vitro evaluation of the drug loaded nanoparticles and their incorporation into PLA/PEG fibres. International Journal of Pharmaceutics, 687, 126383. https://doi.org/10.1016/j.ijpharm.2025.126383

- Gil, J., & Sanz, M. (2025). Bactericidal nanotopography of titanium dental implants: In vitro and in vivo studies. Clinical Oral Investigations, 29(7). https://doi.org/10.1007/s00784-025-06424-z

- Graffelman, J. (2025). A logratio approach to the analysis of autosomal genotype frequencies across multiple samples. Molecular Ecology Resources, 26(1). https://doi.org/10.1111/1755-0998.70072

- Lozano‐García, M., Estrada‐Petrocelli, L., Román, R. R., Jané, R., Trampuz, A., & Morgenstern, C. (2025). A machine learning approach to microcalorimetric pattern classification of pathogens in synovial fluid. Journal of Orthopaedic Research, 43(10), 1855–1864. https://doi.org/10.1002/jor.70024

- Nag, A., Qurashi, A., Morrison, C. A., Moth-Poulsen, K., Pradeep, T., & Love, J. B. (2026). Recent advances in the recycling of precious metals using sustainable chemistry. Coordination Chemistry Reviews, 548, 217186. https://doi.org/10.1016/j.ccr.2025.217186

- Nieuwenhuis, R., Oliveras, A., Rodríguez-Carbonell, E., & Zhao, R. (2026). Using execution logs for improving Pseudo-Boolean propagation. Artificial Intelligence, 351, 104470. https://doi.org/10.1016/j.artint.2025.104470

- Rodríguez-González, R., Delgado, L. M., & Pérez, R. A. (2025). Achievements in 3D printing of silica-based materials for bone tissue engineering. Colloids and Surfaces B: Biointerfaces, 252, 114640. https://doi.org/10.1016/j.colsurfb.2025.114640

- Rodríguez-González, R., Delgado, L. M., & Pérez, R. A. (2026). Self-setting silica-gelatin hybrid 3D printed scaffolds with tunable composition and enhanced physicochemical and biological properties. Journal of Sol-Gel Science and Technology, 117(1). https://doi.org/10.1007/s10971-025-07022-x

- Romero-Serrano, M., Romero-Ruiz, M. M., Ríos-Santos, J. V., Ríos-Carrasco, B., & Gil, J. (2025). Influence of alumina shot blasting induced roughness on bacterial adhesion to titanium. Clinical Oral Investigations, 29(11). https://doi.org/10.1007/s00784-025-06580-2

- Salthouse, R. J., Elholm, J. L., Cortellazzi, I., Hölzel, H., Ferreira, P., Fernandez, L., Etherington, M. K., & Moth‐Poulsen, K. (2025). Modulation of photoluminescence and solar thermal energy storage in Norbornadiene–Quadricyclane dimers. Angewandte Chemie International Edition, 65(1). https://doi.org/10.1002/anie.202516629

- Belliard, R., Charbonnier, S., Eynard, B., & Garcia-Failde, E. (2025). Topological recursion for generalised Kontsevich graphs and r-spin intersection numbers. Selecta Mathematica, 31(5). https://doi.org/10.1007/s00029-025-01081-2

- Gobbo, C., Gong, Y., Jimenez-Arguijo, A., Tseberlidis, G., Trifiletti, V., Malerba, C., Valentini, M., Estarlich, P., Armelin, E., Lanzalaco, S., Po, R., Binetti, S., & Saucedo, E. (2025). Strategies for back contact engineering in high-performance flexible kesterite solar cells. Journal of Materials Chemistry A, 13(31), 25498–25508. https://doi.org/10.1039/d5ta03303a

- Maggi, E., Segura-Blanch, O., Caño, I., Torrens, A., Jimenez-Arguijo, A., Estarlich, P., Calvo-Barrio, L., Chun, H. Z., Garcia-Sanchez, M. F., Placidi, M., Puigdollers, J., Llorca, J., Wong, L. H., Soler, L., & Saucedo, E. (2026). Minimalist and nanoparticle-free selenium-based photocathodes for record performance solar-driven hydrogen evolution. EES Catalysis, 4(1), 163–174. https://doi.org/10.1039/d5ey00297d