

Curriculum Vitae Abreviado

Chelo Ferreira González

CU área de Matemática Aplicada.
Departamento de Matemática Aplicada.
Facultad de Ciencias.
+34 976761123.
Universidad de Zaragoza.

ID (ORCID) 0000-0002-3698-6719.
Instituto Universitario de Matemáticas y Aplicaciones.
4 sexenios de investigación (último 2022).
cferrei@unizar.es

Publicaciones Científicas (5 años)

Sáenz-Navajas, María-Pilar; Ferreira, Chelo; Bastian, Susan E.P.; Jeffery, David W. 2025. Bagging and boosting machine learning algorithms for modelling sensory perception from simple chemical variables: Wine mouthfeel as a case study. FOOD QUALITY AND PREFERENCE. 129, pp. 105494 [13 pp.]. ISSN 0950-3293. <https://doi.org/10.1016/j.foodqual.2025.105494>.

Ferreira, C.; López, José L.; Pérez Sinusía, Ester. 2025. Convergent and asymptotic expansions of the displacement elastodynamic integral in terms of known functions. JOURNAL OF COMPUTACIONAL AND APPLIED MATHEMATICS. 460, pp.116395 [9p]. ISSN 0377-0427. <https://doi.org/10.1016%2Fj.cam.2024.116395>.

Ferreira, Chelo; López, José L.; Pérez Sinusía, Ester. 2025. The Pearcey integral in the highly oscillatory region II. JOURNAL OF APPROXIMATION THEORY. 309, pp. 106150 [13 pp.]. ISSN 0021-9045. <https://doi.org/10.1016/j.jat.2025.106150>.

Gómez-Soria, Isabel; Ferreira, Chelo; Oliván-Blázquez, Bárbara; Aguilar-Latorre, Alejandra; Calatayud, Estela. 2024. Predictive variables of depressive symptoms and anxiety in older adults from primary care: a cross-sectional observational study. PSYCHOGERIATRICS. 24 - 1, pp. 46 - 57. ISSN 1346-3500. <https://doi.org/10.1111/psyg.13039>.

Ferreira, C.; López, José L.; Pérez Sinusía, Ester. 2023. A convergent version of Watson's lemma for double integrals. INTEGRAL TRANSFORMS AND SPECIAL FUNCTIONS. 34-3, pp.196-210. ISSN 1065-2469. <https://doi.org/10.1080/10652469.2022.2098955>.

Ferreira, Chelo; López, José L.; Pérez Sinusía, Ester. 2023. An asymptotic expansion of the hyperbolic umbilic catastrophe integral. RAMANUJAN JOURNAL. 61-3, pp.921-933. ISSN 1382-4090. <https://doi.org/10.1007/s11139-022-00675-0>.

Ferreira, Chelo; López, José L.; Pérez Sinusía, Ester. 2023. Asymptotic approximation of a highly oscillatory integral with application to the canonical catastrophe integrals. STUDIES IN APPLIED MATHEMATICS. 150-1, pp.254-275. ISSN 0022-2526. <https://doi.org/10.1111/sapm.12539>.

Gómez-Soria, Isabel; Ferreira, Chelo; Oliván-Blázquez, Bárbara; Aguilar-Latorre, Alejandra; Calatayud, Estela. 2023. Effects of cognitive stimulation program on cognition and mood in older adults, stratified by cognitive levels: A randomized controlled trial. ARCHIVES OF GERONTOLOGY AND GERIATRICS. 110, pp.104984 [18 pp.]. ISSN 0167-4943. <https://doi.org/10.1016/j.archger.2023.104984>.

Ferreira, Chelo; López, José L.; Pérez Sinusía, Ester. 2023. New series expansions for the H-function of communication theory. INTEGRAL TRANSFORMS AND SPECIAL FUNCTIONS. Latest Article, pp.1-12. ISSN 1065-2469. <https://doi.org/10.1080/10652469.2023.2234556>.

Sánchez-Esquiliche, Fernando; Ferreira, Chelo; Rodríguez-Estévez, Vicente; Muniesa, Ana. 2023. Prediction of growth performance parameters in the growing and free-range finishing phases of the Iberian pig via meta-analysis. SPANISH JOURNAL OF AGRICULTURAL RESEARCH. 21-1, pp.e0603 [8 pp.]. ISSN 1695-971X. <https://doi.org/10.5424/sjar/2023211-19218>.

Calatayud, E.; Ferreira, C.; Oliván-Blázquez, B.; Aguilar-Latorre, A.; Gómez-Soria, I. 2023. Sex-moderated socio-labor aspects as mediators of a cognitive stimulation program in older adults: randomized clinical trial. JOURNAL OF APPLIED GERONTOLOGY. 42-7, pp.1486–1496. ISSN 0733-4648. <https://doi.org/10.1177/07334648231154040>.

Ferreira, Chelo; López, José L.; Pérez Sinusía, Ester. 2023. Uniform convergent expansions of the error function in terms of elementary functions. MEDITERRANEAN JOURNAL OF MATHEMATICS. 20-3, pp.[10 pp.]. ISSN 1660-5446. <https://doi.org/10.1007/s00009-023-02297-2>.

Ferrero-Del-Teso, S.; Suárez, A.; Ferreira, C.; et al; Sáenz-Navajas, M. P. 2022. Modeling grape taste and mouthfeel from chemical composition. FOOD CHEMISTRY. 371, pp.131168[10 pp.]. ISSN 0308-8146. <https://doi.org/10.1016/j.foodchem.2021.131168>.

Ferreira, C.; López, J.L.; Pérez Sinusía, E. 2022. The swallowtail integral in the highly oscillatory region III. COMPLEX VARIABLES AND ELLIPTIC EQUATIONS. 67-5, pp.1262-1272. ISSN 1747-6933. <https://doi.org/10.1080/17476933.2020.1868447>.

Ferreira, Chelo; Saenz-Navajas, María Pilar; Carrascon, Vanesa; Naes, Tormod; Fernandez-Zurbano, Purificación; Ferreira, Vicente. 2021. An assessment of voltammetry on disposable screen printed electrodes to predict wine chemical composition and oxygen consumption rates. FOOD CHEMISTRY. 365, pp.130405 [9 pp.]. ISSN 0308-8146. <https://doi.org/10.1016/j.foodchem.2021.130405>.

Ferreira, Chelo; López, José; Pérez Sinusía, Ester. 2021. New recurrence relations for several classical families of polynomials. JOURNAL OF DIFFERENCE EQUATIONS AND APPLICATIONS. 27-10, pp.1512-1523. ISSN 1023-6198. <https://doi.org/10.1080/10236198.2021.1999432>.

Gómez-Soria I.; Ferreira C.; Oliván Blázquez B.; Magallón Botaya R.M.; Calatayud E. 2021. Short-term memory, attention, and temporal orientation as predictors of the cognitive impairment in older adults: A cross-sectional observational study. PLOS ONE. 16-12, pp.e0261313 [18 pp.]. ISSN 1932-6203. <https://doi.org/10.1371/journal.pone.0261313>.

Ferreira, C.; López, J.L.; Perez Sinusía, E. 2020. Analysis of singular one-dimensional linear boundary value problems using two-point Taylor expansions. ELECTRONIC JOURNAL OF QUALITATIVE THEORY OF DIFFERENTIAL EQUATIONS. 2020-22, pp.1-21. ISSN 1417-3875. <https://doi.org/10.14232/ejqtde.2020.1.22>.

Ferreira, C.; Lopez, J.L.; Sinusia, E. P. 2020. The swallowtail integral in the highly oscillatory region II. ELECTRONIC TRANSACTIONS ON NUMERICAL ANALYSIS. 52, pp.88-99. ISSN 1068-9613. https://doi.org/10.1553/etna_vol52s88.

Tesis Doctorales

- Contribuciones a la medicina preventiva y a la epidemiología veterinaria, 2016 (Codirección)
- Modelos Empíricos, Mecanicistas y Dinámicos para la estimación y predicción de la composición corporal del cerdo ibérico de montanera, 2025 (Codirección)

Proyectos de investigación (vigentes):

PID2022-136441NB-I00: TECNICAS INNOVADORAS PARA LA RESOLUCION DE PROBLEMAS EVOLUTIVOS. José Luis López García. (Universidad Pública de Navarra). 01/01/2023-31/12/2026. 62.500 €.

PID2021-126031OB-C21: Parametrización y modelado de la calidad y longevidad aromática de los vinos españoles como herramientas clave para la excelencia y resiliencia en la industria enológica. AGENCIA ESTATAL DE INVESTIGACIÓN; UNION EUROPEA. Vicente Ferreira González. (Facultad de Ciencias - Universidad de Zaragoza). 01/09/2022-31/08/2025. 335.170 €.

T29_23R (Laboratorio de análisis del aroma y enología): Parametrización y modelado de la calidad y longevidad aromática de los vinos españoles como herramientas clave para la excelencia y resiliencia en la industria enológica. GOBIERNO DE ARAGÓN. Ana María Escudero Carra; Vicente Ferreira González. (Facultad de Ciencias - Universidad de Zaragoza). 01/01/2023-31/12/2025. 34.312 €.

Congresos, seminarios (5 años):

Expansions of the Fourier integral for small values of the parameter. Extremal Polynomials and Dynamical Systems. Copenhagen, Dinamarca. 2025.

Computation in terms of elementary functions of an integral from the Elastodynamic Theory. IMAG Conference on Orthogonal Polynomials, Special Functions and Applications OPSFA17. Granada, España. 2024.

Bagging-based algorithms of machine learning to model sensory perception from simple chemical measurements. 17th Sensometric Conference. París, Francia. 2024.

Aproximaciones analíticas de una integral característica de problemas en la Elastodinámica. Dos dGías de Polinomios Ortogonales y Funciones Especiales. Almería, España. 2023.

The Watson Lemma: a convergent modification. Sixteenth International Conference Zaragoza-Pau on Mathematics and its Applications. Jaca, España. 2022.

A convergent version of Watson Lemma. International Conference on Orthogonal Polynomials: Celebrating Francisco Marcellán's 70th birthday. Cádiz, España. 2022.

Aproximaciones asintóticas de las integrales catastróficas. V Encuentro Conjunto RSME-SMM. Guanajuato, México. 2021.