

Laureano González Vega

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EMPLOYMENT

- 1987-1991: Assistant Professor (Universidad de Cantabria, Spain).
- 1991-2002: Associate Professor (Universidad de Cantabria, Spain).
- 2002-2019: Full Professor (Universidad de Cantabria, Spain).
- 2019-2024: Full Professor, Dept. of Quantitative Methods (CUNEF Universidad, Spain).
- 2001-2004: Dean, Faculty of Science (Universidad de Cantabria, Spain).
- 2004-2005: General Director for Universities and Research (Gobierno de Cantabria, Spain).
- 2006-2008: Director of the International Center for Mathematical Meetings (CIEM, Universidad de Cantabria, Spain).
- 2007-2010: Scientific Director for the CONSOLIDER INGENIO 2010 Program (Ministerio de Ciencia e Innovación, Spain).
- 2009-2012: Deputy Director for the Evaluation of Programmes and Institutions (ANECA, Spain).

EDUCATION

- Bachelor in Mathematics, Universidad de Cantabria, 1987
- PhD in Mathematics, Universidad de Cantabria, 1989

FIELDS OF INTEREST

Symbolic Computation. Computer Aided Geometric Design. Visualization.

PUBLICATIONS

1. [L. Gonzalez-Vega](#), I. Necula: Efficient topology determination of implicitly defined algebraic plane curves. *Computer Aided Geometric Design* 19, 719-743, 2002.

2. G. M. Diaz-Toca, L. Gonzalez-Vega, H. Lombardi: Generalizing Cramer's rule: Solving uniformly linear systems of equations. *SIAM Journal on Matrix Analysis and Applications* 27, 621-637, 2005.
3. F. Etayo, L. Gonzalez-Vega, N. del Rio: A new approach to characterizing the relative position of two ellipses depending on one parameter. *Computer Aided Geometric Design* 23, 324-350, 2006.
4. G. M. Diaz-Toca, L. Gonzalez-Vega: Computing greatest common divisors and squarefree decompositions through matrix methods: The parametric and approximate cases. *Linear Algebra and Its Applications* 412, 222-246, 2006.
5. M. Aigner, B. Jüttler, L. Gonzalez-Vega, J. Schicho: Parameterizing surfaces with certain special support functions, including offsets of quadrics and rationally supported surface. *Journal of Symbolic Computation* 44, 180-191, 2009.
6. L. Gonzalez-Vega, I. Polo-Blanco: A symbolic analysis of Vermeille and Borkowski polynomials for transforming 3D Cartesian to geodetic coordinates. *Journal of Geodesy* 83, 1071-1081, 2009.
7. J. C. Butcher, R. M. Corless, L. Gonzalez-Vega, A. Shakoory: Polynomial algebra for Birkhoff interpolants. *Numerical Algorithms* 56, 319-347, 2011.
8. J. Caravantes, L. Gonzalez-Vega, A. Piñera: Solving positioning problems with minimal data. *GPS Solutions* 21, 149-161, 2017.
9. E. Chan, R. M. Corless, L. Gonzalez-Vega, J. R. Sendra, J. Sendra: Upper Hessenberg and Toeplitz Bohemians. *Linear Algebra and Its Applications* 601, 72-100, 2020.
10. J. Caravantes, G. M. Diaz-Toca, M. Fioravanti, L. Gonzalez-Vega: Solving the interference problem for ellipses and ellipsoids: New formulae. *Journal of Computational and Applied Mathematics* 407, Art. 114072, 2022.

SELECTED ACADEMIC HONOURS AND GRANTS

- **Grant:** *Mathematical Visualization: Foundations, Algorithms and Applications*. Financing entity: Ministerio de Ciencia e Innovación. Period: 2021-2024. PI: L. González Vega.
- **Grant:** *Symbolic Computation: new challenges in Algebra and Geometry together with its applications*. Financing entity: Ministerio de Economía y Competitividad. Period: 2018-2020. PI: L. González Vega.
- **Grant:** *ShApes, Geometry and Algebra* – SAGA. Marie-Curie Initial Training Network (FP7-PEOPLE-2007-1-1-ITN). Financing entity: European Union. Research team: Kongsberg SIM (Austria), Missler Software (France), INRIA (France), GraphiTech (Italy), SINTEF (Norway), University of Oslo (Norway), Johannes Kepler Universitaet (Austria), Universidad de Cantabria (Spain), Vilniaus Universitetas (Lithuania), National and Kapodistrian University of Athens (Greece). Period: 2008-2012. PI: L. González Vega (Spain) and Tor Dokken (General Coord.).

PROFESSIONAL ACTIVITIES

Together with the company Suomitech Soluciones Innovadoras, and since 2012, he has coordinated the development of the ApliEval app (built on Drupal), which serves as the evaluation platform used by several Spanish quality assurance agencies, including ACSUG, AQUIB, AQU, AVAP, UNIBASQ, ACSUCyL, and madri+d.