

## **SHORT CV**

**Name:**

Laureano Gonzalez-Vega

**Current Position:**

Professor of Algebra at Universidad de Cantabria (Spain) [on leave]

Professor of Quantitative Methods at CUNEF Universidad (Spain)

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Quantitative Methods Department

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**Laureano Gonzalez-Vega** is Professor of Quantitative Methods at *CUNEF Universidad* and has a wide experience in research, teaching, academic management and in the participation in networks activities and international research projects.

He has been Dean of the Faculty of Sciences (2001-2004) at the Universidad de Cantabria, General Director for Higher Education and Research at the Cantabria Regional Government (2004-2005) and the first Director of the International Centre for Mathematical Meetings - CIEM (2006-2008) located at Castro Urdiales (Spain). From 2007 to 2010 he was the Scientific Chairman of the CONSOLIDER-INGENIO 2010 Programme of the Spanish Ministry of Science and Innovation. From 2009 to 2012 he was the Deputy Director for Evaluation of Programmes and Institutions at the Spanish National Agency for Quality Assessment and Accreditation in Higher Education (ANECA). From 2020 he is the Chairman of the Quantitative Methods Department at CUNEF Universidad.

He got his Ph. Degree in Mathematics in 1989 and his research activity is concentrated on topics related with Computer Algebra, Symbolic Computation, Computer Aided Geometric Design, Scientific Computing, etc. He has led several research projects at the national and European levels, authored more than one hundred scientific publications and has been the PhD advisor of ten doctoral students.

## **Career History**

1989:

- PhD Mathematics, Universidad de Cantabria, Spain.

1990-2002:

- Research assistant and lecturer at Universidad de Cantabria.

2001-2004:

- Dean of the Faculty of Sciences at the Universidad de Cantabria.

2002-2019:

- Professor of Algebra at Universidad de Cantabria.

Since 2019:

- Professor of Quantitative Methods at *CUNEF Universidad*.

2004-2005:

- General Director for University & Research, Cantabria Regional Government.

2006-2008:

- Director of the International Centre for Mathematical Encounters (CIEM) at Castro-Urdiales (Spain).

2007-2010:

- Scientific Chairman of the CONSOLIDER-INGENIO 2010 Programme of the Spanish Ministry of Science&Innovation.

2009-2012:

- Deputy Director for Evaluation of Programmes and Institutions at the Spanish National Agency for Quality Assessment and Accreditation in Higher Education (ANECA).

## **Publications**

Scopus:

- <https://www.scopus.com/authid/detail.uri?authorId=6603586013>
- Author ID: 6603586013

Google Scholar:

- [http://scholar.google.es/citations?user=Fb\\_L37YAAAAJ&hl=en](http://scholar.google.es/citations?user=Fb_L37YAAAAJ&hl=en)

MathSciNet:

- <http://www.ams.org/mathscinet/search/author.html?mrauthid=304547>
- MR Author ID: 304547

## **PhD Thesis**

Mathematics Genealogy Project:

- <http://genealogy.math.ndsu.nodak.edu/id.php?id=58896>
- PhD advisor of ten doctoral students.

## Selected publications

- L. Gonzalez-Vega**, I. Necula: *Efficient topology determination of implicitly defined algebraic plane curves*. **Computer Aided Geometric Design** 19, 719-743, 2002.
- G. M. Diaz-Toca, **L. Gonzalez-Vega**, H. Lombardi: *Generalizing Cramer's Rule: Solving uniformly linear systems of equations*. **SIAM Journal in Matrix Analysis and its Applications** 27, 621-637, 2005.
- F. Etayo, **L. Gonzalez-Vega**, N. Del Rio: *A new approach for characterizing the relative position of two ellipses depending on one or several parameters*. **Computer Aided Geometric Design** 23, 324-350, 2006.
- J. Caravantes, **L. Gonzalez-Vega**: *Improving the topology computation of an arrangement of cubics*. **Computational Geometry: Theory and Applications** 41, 206-218, 2008.
- 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.
- M. Aigner, **L. Gonzalez-Vega**, B. Juttler, J. Schicho: *Parameterizing surfaces with certain special support functions, including offsets of quadrics and rationally supported surfaces*. **Journal of Symbolic Computation** 44, 180-191, 2009.
- J. Abdeljaoued, G. M. Diaz-Toca, **L. Gonzalez-Vega**: *Bezout matrices, Subresultant polynomials and parameters*. **Applied Mathematics and Computation** 214, 588-594, 2009.
- J. C. Butcher, R. M. Corless, **L. Gonzalez-Vega**, A. Shakoory: *Polynomial algebra for Birkhoff interpolants*. **Numerical Algorithms** 56, 319-347, 2011.
- R. M. Corless, G. M. Diaz-Toca, M. Fioravanti, **L. Gonzalez-Vega**, I. Rua, A. Shakoory: *Computing the topology of a real algebraic plane curve whose defining equations are available only "by values"*. **Computer Aided Geometric Design** 30, 675-706, 2013.
- J. Caravantes, M. A. Gomez-Molleda, **L. Gonzalez-Vega**: *A canonical form for the continuous piecewise polynomial functions*. **Journal of Computational and Applied Mathematics** 283, 17-27, 2015.
- D. A. Aruliah, R. M. Corless, G. M. Diaz-Toca, **L. Gonzalez-Vega**, A. Shakoory: *The Bézout matrix for Hermite interpolants*. **Linear Algebra and Its Applications** 474, 12-29, 2015.
- J. Caravantes, **L. Gonzalez-Vega**, A. Piñera: *Solving positioning problems with minimal data*. **GPS Solutions** 21, 149-161, 2017.
- J. Caravantes, G. M. Diaz-Toca, M. Fioravanti, **L. Gonzalez-Vega**, I. Necula: *An algebraic framework for computing the topology of offsets to rational curves*. **Computer Aided Geometric Design** 52-53, 28-47, 2017.

J. Caravantes, **L. Gonzalez-Vega**: *On the Interference Problem for Ellipsoids: Experiments and Applications*. **Lecture Notes in Computer Science** 10931, 89-97, 2018.

E. Y. S. Chan, R. M. Corless, **L. Gonzalez-Vega**, J.R. Sendra, J. Sendra: *Algebraic linearizations of matrix polynomials*. **Linear Algebra and Its Applications** 563, 373-399, 2019.

E. Y. S. Chan, R. M. Corless, **L. Gonzalez-Vega**, J. R. Sendra, J. Sendra, S. Thornton: *Upper Hessenberg and Toeplitz Bohemians*. **Linear Algebra and Its Applications** 601, 72-100, 2020.

**L. Gonzalez-Vega**, A. Trocadero: *Tools for analyzing the intersection curve between two quadrics through projection and lifting*. **Journal of Computational and Applied Mathematics** 393, 113522, 2021