Part A. PERSONAL INFORMATION

		CV date	16/12/2022

First and Family name	Manuel Ladra González		
Social Security, Passport, ID number			▉▉▉▉
Researcher codes	Open Researcher and Contributor ID (ORCID**)		0000-0002-0543-4508
	SCOPUS Author ID (*)		6602456010
	WoS Researcher ID (*)		E-4186-2016

(*) Optional
(**) Mandatory

A.1. Current position

Name of University/Institution	Universidade de Santiago de Compostela		
Department	Departamento de Matemáticas		
▉▉▉▉	▉▉▉▉		
▉▉▉▉	E-mail		▉▉▉▉
Current position	Full Professor	From	05/03/2008
Key words	groups (co)homology, Lie algebras, Leibniz n-algebras, cyclic homology, Gröbner bases, genetic algebras		

A.2. Education

PhD, Licensed, Graduate	University	Year
Bachelor	Universidade de Santiago de Compostela	1978
PhD Doctorate	Universidade de Santiago de Compostela	1984

A.3. General indicators of quality of scientific production *(see instructions)*

5 Six-year Research Periods (*Sexenios de Investigación*) granted by the National Commission for the Evaluation of the Research Activity (CNEAI) of Spain Government. Last one granted: 2014-2019, dated July 17, 2020
JCR articles: 80 (past 10 years) Total: 135
h Index: 19 (past 10 years)
Number of PhD theses supervised: 11 (past 10 years)
Total number of citations: 1500 (past 10 years); average 48 per year over the past five years (Harzing, A.W. database Publish or Perish, available from http://www.harzing.com/pop.htm)
Average citations per year 89 (cites per paper 7.31)
Number of publications in the Q1 quartile (JCR): 16

Part B. CV SUMMARY *(max. 3500 characters, including spaces)*

I studied Mathematics at the University of Santiago de Compostela (USC), obtaining the Bachelor's degree in Mathematics in 1978, and the PhD doctorate at the same University in 1984. All my academic, professional and research activity has been developed at the USC.
I began my teaching and research activity in 1978-79 as Assistant Professor and Fellow of the National Training Plan for Research Staff (FPI).
Since 2008 I have been Full Professor of University.
I have taught in several Bachelor and master degrees:
Mathematics, Physics, Computer Engineering, Technical Engineering in Computer Systems, Chemical Engineering, Higher Graduate in Information Technology and Communications; master's in Mathematics and Teachers of Secondary Education and Baccalaureate; and Doctorate Courses in the Universities of Santiago, Vigo and A Coruña.
Regarding my research work, it is necessary to highlight that I am the author of more than one hundred articles (see MathSciNet or zbMATH) published in journals of international impact.
My research focuses on studying the homological algebra of different algebraic structures, and on analyzing both non-associative algebraic structures with a broad connection to Physics and Biology, and computational aspects of non-commutative algebra.

I have been Coordinator of the Galician Thematic Network of Algebra, Computation and Applications, Organizer of several seminars and international conferences, Main Researcher of several international, national, and regional research projects and an active researcher in many other projects. I am currently Coordinator, Main Researcher, and member of the Scientific Committee of the National Research Network RED EACA (RT for Symbolic Calculus, Computational Algebra and Applications).

I have been Director of sixteen doctoral theses (eleven in the last ten years).

I am a member of the Scientific Council of the Mathematics Institute (IMAT) of the USC, a member of the research team promoting the Community of Galicia, which achieved the concession of a headquarters of the Spanish Institute of Mathematics (IEMAT) for Galicia. I have been designated President of the Scientific Committee of the 6th Iberian Meeting of Mathematics conference organized by the RSME and SMP. I have also been a member of the Commission appointed by the ANEP to select the researchers Ramón y Cajal and Juan de la Cierva (years: 2008 and 2009).

In my academic management work, I have been Secretary of the Faculty of Mathematics, Director of the Colegio Mayor Universitario Rodríguez Cadarso, Director of the Residence Area and Director of the Department of Algebra at the University of Santiago de Compostela.

The following activities should be mentioned in the University Extension work:

President of the Commission of Conflict Resolution of the USC, Member of the Galician Council of Universities, Coorganizer of the Galician Mathematical Olympics and Member of the Organizing Committee and teacher of Estalmat-Galicia.

I collaborate as Evaluator of R&D projects for the National Agency of Evaluation and Prospective Studies (ANEP), Georgian National Science Foundation (GNSF) of Georgia, Fund for Scientific and Technological Research (FONCyT) of Argentina, FONDECYT Program of Chile and the National Science Center of Poland.

I collaborate as Evaluator of research papers for numerous international scientific journals and contribute as a Reviewer of the Zentralblatt für Mathematik and Mathematical Reviews.

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications *(see instructions)*

- T. F. Taha, M. Ladra, P. Páez-Guillán, The non-abelian tensor and exterior products of crossed modules of Lie superalgebras. J. Algebra Appl. 21 (2022), no. 9, Paper No. 2250169, 22 pp.
- A. Fernández-Fariña, M. Ladra, Universal central extensions of braided crossed modules of Lie algebras. Hacet. J. Math. Stat. 51 (2022), no. 4, 1013–1028.
- I. A. Karimjanov, I. Kaygorodov, M. Ladra, Central extensions of filiform associative algebras. Linear Multilinear Algebra 69 (2021), no. 6, 1083–1101.
- I. A. Karimjanov, S. N. Murodov, On new classes of chains of evolution algebras. Hacet. J. Math. Stat. 50 (2021), no. 1, 146–158.
- E. Khmaladze, R. Kurdiani, M. Ladra, On the capability of Leibniz algebras. Georgian Math. J. 28 (2021), no. 2, 271–279.
- A. Fernández-Fariña, M Ladra, Braiding for categorical algebras and crossed modules of algebras II: Leibniz algebras. Filomat 34 (2020), no. 5, 1443–1469.
- U. Jamilov, M Ladra. On a family of non-Volterra quadratic operators acting on a simplex. Qual. Theory Dyn. Syst. 19 (2020), no. 3, paper no. 95, 20 pp.
- I. A. Karimjanov, M. Ladra. Some classes of nilpotent associative algebras. Mediterr. J. Math. 17 (2020), no. 2, Art. 70, 21 pp.
- M. Ladra, P. Páez-Guillán, T. Recio. Dealing with negative conditions in automated proving: tools and challenges. The unexpected consequences of Rabinowitsch's trick. Rev. R. Acad. Cienc. Exactas Fís. Nat. Ser. A Mat. RACSAM 114 (2020), no. 4, Paper No. 162, 16 pp.
- G. Donadze, M. Ladra, P. Páez-Guillán. Schur's theorem and its relation to the closure properties of the non-abelian tensor product. Proc. Roy. Soc. Edinburgh Sect. A 150 (2020), no. 2, 993–1002.
- I. A. Karimjanov, I. Kaygorodov, M. Ladra. Rota-type operators on null-filiform associative algebras. Linear Multilinear Algebra 68 (2020), no. 1, 205–219.
- I. A. Karimjanov, M. Ladra. Minimal representations of filiform Lie algebras and their application for construction of Leibniz algebras. J. Geom. Phys. 144 (2019), 235–244.

- K. Kudaybergenov, M. Ladra, B. A. Omirov. On Levi-Malcev theorem for Leibniz algebras. Linear Multilinear Algebra 67 (2019), no. 7, 1471–1482.
- J. M. Casas, M. Ladra, U. A. Rozikov. Markov processes of cubic stochastic matrices: quadratic stochastic processes. Linear Algebra Appl. 575 (2019), 273–298.
- G. Donadze, N. Inassaridze, M. Ladra, A. M. Vieites. Exact sequences in homology of multiplicative Lie rings and a new version of Stallings' theorem. J. Pure Appl. Algebra 222 (2018), 1786–1802.
- U. U. Jamilov, A. Yu. Khamraev, M. Ladra. On a Volterra Cubic Stochastic Operator. Bull. Math. Biol. 80 (2018), 319–334.
- J. L. Castiglioni, X. García-Martínez, M. Ladra. Universal central extensions of Lie–Rinehart algebras. J. Algebra Appl. 17 (2018), no. 7, 1850134, 30 pp.
- F. Aguado, F. Gago, M. Ladra, G. Pérez, C. Vidal, A. M. Vieites. Problemas resueltos de Combinatoria. Laboratorio con SageMath, Paraninfo, 2018. ISBN: 9788428340748.

C.2. Research projects

1. Reference: PID2020-115155GB-I00.
Title: Homología, homotopía e invariantes categóricos en grupos y álgebras no asociativas.
Funding entity: Agencia Estatal de Investigación
Amount of the grant: 77.803 €
Duration, from: 01/09/2021 to: 31/12/2024
P.I.: Manuel Ladra González (USC)
Type of participation: Main Researcher

2. Reference: RED2018-102709-T.
Title: Red EACA (Red Temática de Cálculo Simbólico, Álgebra Computacional y Aplicaciones).
Funding entity: Ministerio de Ciencia e Innovación
Amount of the grant:10.000 €
Duration, from: 01/01/2020 to: 31/12/2021
P.I.: Manuel Ladra González (USC)
Type of participation: Main Researcher

3. Reference: ED431C 2019/10.
Title: Grupos de referencia competitiva: Grupo de Investigación en *Matemáticas*
Funding entity: Xunta de Galicia
Amount of the grant:190.000 €
Duration, from: 01/01/2019 to: 20/11/2022
P.I.: Eduardo García Río (USC)
Type of participation: Researcher

4. Reference: MTM2016-81932-REDT.
Title: RedEaca (Red Temática de Cálculo Simbólico, Álgebra Computacional y Aplicaciones).
Funding entity: Ministerio de Ciencia e Innovación
Amount of the grant:11.000 €
Duration, from: 01/01/2017 to: 30/06/2019
P.I.: Francisco J. Castro Jiménez (U. Sevilla)
Type of participation: Researcher

5. Reference: R2016/022.
Title: Redes de investigación: Red IEMath_Galicia
Funding entity: Xunta de Galicia
Amount of the grant:120.000 €
Duration, from: 01/01/2017 to: 31/12/2018
P.I.: Juan José Nieto Roig (USC)
Type of participation: Researcher

6. Reference: MTM2016-79661-P.
Title: Homología, homotopía e invariantes categóricos en grupos y álgebras no asociativas

Funding entity: Agencia Estatal de Investigación
Amount of the grant:112.100 €
Duration, from: 30/12/2016 to: 29/06/2021
P.I.: Manuel Ladra González (USC)
Type of participation: Main Researcher

C.3. Contracts, technological or transfer merits

C.4. Doctoral theses supervised (in the last 10 years)

- Title: Restricted Lie (super)algebras, central extensions of non-associative algebras and some tapas (María Pilar Páez Guillán). Universidad de Santiago de Compostela, 2021.
- Title: Braided Crossed Modules and Loday-Pirashvili category (Alejandro Fernández Fariña). Universidad de Santiago de Compostela, 2021.
- Title: Time depending dynamics of chains of evolution algebras (Sherzod Murodov). Universidad de Santiago de Compostela, 2019.
- Title: Higman-Neumann-Neumann extension and embedding theorems for Leibniz algebras (Chia Zargeh). Universidad de Santiago de Compostela, 2018.

C.5. Journal's Editorial Board

- Member of Editorial Board of Uzbek Mathematical Journal

https://uzmj.mathinst.uz/editorial-board.html

C.6. Awards

- Medal "Enrique Vidal Abascal" of the Real Academia Galega de Ciencias, of the section of Mathematics, Physics and Computer Science, year 2021, in recognition of his extraordinary scientific career.
- Director of the work "The algebraic category of crossed modules of commutative algebras" carried out by Pablo Fernández Ascariz, who won the First National Prize of the 2nd Archimedes University Competition (2003).
- Extraordinary Prize for Bachelor's Degree in Mathematics, awarded by the University of Santiago, 1979.

C.7. Experience in organization of R+D+i activities

- Title: Non-associative Algebras and their Applications (Antananarivo, Madagascar)
https://sites.google.com/view/cimpa2020madagascar/home
Type of activity: CIMPA School
- Title: 5TH EACA International School on Computer Algebra and its Applications (BCAM, Bilbao, Spain) http://www.bcamath.org/es/workshops/5-eaca-school
Type of activity: EACA School
Date: February 2020 (Member of the Organizing Committee)
- Title: Nonassociative Algebras and Applications (Tashkent, Uzbekistan)
http://mathinst.uz/en/content/cimpa
Type of activity: CIMPA School
Date: September 2018 (Member of the Organizing Committee)
- Title: 24th Conference on Applications of Computer Algebra-ACA 2018 (Santiago de Compostela, Spain)
Type of activity: International Conference
Date: June 2018 (Chair of the Organizing Committee)