

CURRICULUM VITAE ABREVIADO (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

First name	Inés M.		
Family name	Gómez-Chacón		
Open Researcher and Contributor ID (ORCID) (*)	https://orcid.org/0000-0001-8028-0548 Researcher ID: S-6127-2016		

A.1. Current position

Position	Full Professor (Catedrática Didáctica de la Matemática)		
Institution	Universidad Complutense de Madrid		
Department/Center	Álgebra, G,T	Facultad de Ciencias Matemáticas	
Key words	Didactics of Mathematics, Advanced mathematical thinking, Higher Education, Cognition and Affect Learning in Mathematics, Knowledge and Professional Development of Mathematics Teachers.		

A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
10/04/2008-01/09/2021	Titular de Universidad
17/12/2004-9/04/2008	Ayudante Doctor

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licensed in Mathematics	Universidad Autónoma de Madrid	1986
PhD Philosophy and Educational Sciences	Universidad Complutense de Madrid	1997

Part B. CV SUMMARY (max. 5000 characters, including spaces)

Full Professor at the UCM, in the area of Didactics of Mathematics in the Faculty of Mathematical Sciences. From 2012 to 2023 Principal Investigator of the Program of the *Instituto de Matemática Interdisciplinar* (IMI), (INVEDUMAT_uni) (Research in Mathematical Education at University Level), Spain. Competitive call IMI- Scientific Programs. Since 2023 Principal Investigator of the National Project *Design of tools based on biomarkers for the identification and treatment of maths anxiety from an inclusive approach*, Spanish Ministry of Science and Innovation ((PID2022-138325OB-I00).

Extensive research experience in Spain and abroad. Continuous participation in 17 research projects (8 European projects, 2 of them as principal investigator; 8 projects of the National I+D Plan of the Spanish Ministry; 1 of the Spanish Foundation for Science and Technology). In 15 projects of Innovation and Improvement of Teaching Quality, 10 of them as director. The national projects in which I have participated have been focused on the didactics of mathematics (PID2022-138325OB-I00), the psychology of mathematical learning (PSI2008-00754/PSIC) and the didactics of mathematics and teacher training (EDU2013-44047-P) and (Consolider-CSD2006-00032). Last European participated projects: I was member and national coordinator of the European Project "Partnership for the Learning And Teaching IN University Mathematics (PLATINUM)", (2018-1-NO01-KA203-038887), and research member in Research European Project "Supporting the Promotion of Equality in Research and Academia (SUPERA)" focuses on gender and equality issues.

She has several publications: 7 books; 32 book chapters; 11 books as editor, 55 articles in international journals, more than 55 papers in congresses (27 of them by invitation), and has been part of 16 Scientific Committees of the most significant International Congresses.



Number of six-year research periods = 5 six-year periods (last until 2024, award date 2025).
Number of five-year teaching periods = 3 five-year periods (award date 04/2021).

From Web of Science (WOS, Thompson Reuter), Scopus, etc. main collection. No. of articles in the last 10 years: 23, Book in SPI indexed publisher in the last 10 years: 2. Book chapters in SPI indexed publisher in the last 10 years: 22. Impact indexes: h-index = 5 (Web of Science-Thompson Reuter), h-index = 7 (Scopus), Impact from Google Scholar, Citation index: 4332 (since 2018: 1793 citations), h-index= 27; i10-index: 61.

In relation to the contributions to the training of young people researchers: Theses supervised in the last 10 years = 3 defended, with a grant from the National FPU Program of the MEC/SEUI/DGU, Cod. AP2007-00866 and another with a grant from the Ministry of Italy; and 4 theses in progress. Official Master's theses defended (3 of the Master of Advanced Mathematics Research at UCM, 1 of Masgistrale in Matemática in Italy and 21 of Master Teacher Training at UCM).

The main results of the research carried out have been: a) development of a conceptual framework for the analysis of cognition and affect structures in mathematics; b) elaboration of assessment instruments inserting a conjunction of several variables for the measurement of mathematics performance and knowledge of both students and teachers; c) advances in the combination of theoretical perspectives in collaboration with University Paris-Diderot; d) development of mathematics teacher professional development programs, integrating the cognitive, affective and social dimension and also on the Knowledge of Mathematical Practice and on the Didactic Knowledge of the Content, in collaboration with Spanish researchers and with international CERME team in Affect.

The recognition of the scientific community of these results has led her to be invited to international congresses, research stays to give research seminars and publications in several international Handbooks. She has made in these last 10 years 6 research stays in universities or research centers in different countries (University of California at Berkeley (USA), 2016; Universiti Sains Malaysia, 2014, University Agder University (Norway) 2012, University of Pisa (Italy) 2011; London City University (UK), 2007, University of Paris Diderot (France) 2006, Katholieke Universiteit Leuven (Belgium) 2004). In 2006 she received a UCM Research grant for a stay at the University of Paris Diderot (France) and in 2016 she received the UCM del Amo grant for a stay at the University of California at Berkeley (USA).

In relation to transfer to the society, she has participated in agreements established by Madrid City Council and the UCM as director of Service-Learning Projects. As well as directing numerous monographic courses organized by the Spanish Ministry of Education.

She has participated in Lifelong Learning Program of the European Commission, Erasmus Action, National Erasmus, Teaching Staff, teaching in English or French: in Portugal, France, Italy in 2014, 2012, 2011, 2010, 2007. He has taught courses and seminars in research and teaching training in 18 universities in Europe, America and Asia.

Received awards and recognitions for her research, National Award for Educational Research and Innovation from the Ministry of Education and Culture (Spain).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications

It includes some of the Article's JCR, in Web of Science (WOS) or Scopus:

1. Gómez-Chacón, I.M., Hochmuth, R. & Peters, J. (2024). Inquiry in mathematics: studying a professional development measure for university lecturers, *International Journal of Mathematical Education in Science and Technology*, <https://doi.org/10.1080/0020739X.2024.2308034>
2. Gómez-Chacón, I.M., Bacelo, A., Marbán, J.M. et al. (2023). Inquiry-based mathematics education and attitudes towards mathematics: tracking profiles for teaching. *Mathematics Education Research Journal*. <https://doi.org/10.1007/s13394-023-00468-8>
3. Bacelo, A., Gómez-Chacón, I.M. (2023). Characterising algorithmic thinking: a university study of unplugged activities, *Thinking skills and creativity*, vol 48, 101284, <https://doi.org/10.1016/j.tsc.2023.101284>
4. Mello-Román, J. D., & Gómez-Chacón, I. M. (2022). Creencias y rendimiento académico en matemáticas en el ingreso a carreras de ingeniería. *Aula Abierta*, 51(4), 407–415. <https://doi.org/10.17811/rifie.51.4.2022.407-415>



5. Barbero M, Gómez-Chacón IM, Arzarello F. (2020). Backward Reasoning and Epistemic Actions in Discovering Processes of Strategic Games Problems. *Mathematics*, 8(6): 989. <https://doi.org/10.3390/math8060989>
6. Gómez-Chacón, I. M., Ortuño, M. T. & De la Fuente, A. (2020). Aprendizaje-Servicio en Matemáticas: Uso de Trayectorias de Aprendizaje en la formación universitaria, *REDU. Revista de Docencia Universitaria*, [S.I.], v. 18, n. 1, p. 213-231, ISSN 1887-4592. doi: <https://doi.org/10.4995/redu.2020.12079>.
7. Gómez-Chacón, I. M. (2019). Mathematical Learning and Identity Strategies. A Case of Adult Education in Brazil, *RELIME, Revista latinoamericana de investigación en matemática educativa*, 22 (3), 191-210, ISSN: 1665-2436. DOI: 10.12802/relime.13.17418.
8. Gómez-Chacón, I. M. (2018). Promoting the mathematics teacher self-identity. Design heuristics for didactical materials, *Journal of Educational Sciences and Psychology*, 3, 15-27.
9. Gómez-Chacón, I. M. (2017) Emotions and heuristics: the state of perplexity in mathematics, *Journal ZDM-Mathematics Education*, 49:323–338, DOI: 10.1007/s11858-017-0854-8
10. Gómez-Chacón, I. M^a, Romero, I. M^a y García, M^a M. (2016). Zig-zagging in geometrical reasoning in technological collaborative environments: a Mathematical Working Space-framed study concerning cognition and affect, *Journal ZDM-Mathematics Education*, 48(6), 909-924, <https://doi.org/10.1007/s11858-016-0755-2>
11. Gómez-Chacón, I.M., Kuzniak, A., Vivier, L. (2016) The Teacher's role from the perspective of Mathematical Working Spaces, *Bolema - Mathematics Education Bulletin* 30 (54), pp. 1-22. <https://doi.org/10.1590/1980-4415v30n54a01>
12. Gómez-Chacón, I.M., Botana, F., Escribano, J., Abánades, M.Á. (2016) The concept of locus. Genesis of personal and professional use with different tools, *Bolema - Mathematics Education Bulletin*, 30(54), pp. 67-94. DOI: 10.1590/1980-4415v30n54a04
13. Gómez-Chacón, I. M^a y Kuzniak, A. (2015) Geometric Work Spaces: Figural, instrumental and discursive geneses of reasoning in a technological environment, *International Journal of Science and Mathematics Education*, 13, 201-226, DOI: 10.1007/s10763-013-9462-4
14. Álvarez, I., Gómez-Chacón, I. M., Ursini, S. (2015). Understanding the Algebraic Variable: Comparative Study of Mexican and Spanish Students, *Eurasia Journal of Mathematics, Science & Technology Education*, 2015, 11(6), 1507-1529.

Research books

1. Gómez-Chacón, I.M., Hochmuth, R, Jaworski, B. et.al. (Eds) (2021). *Inquiry in University Mathematics Teaching and Learning. The PLATINUM Project* Brno: MUNI, Masaryk University Editor. ISBN 978-80-210-9982-1 e-ISBN 978-80-210-9983-8 (online; pdf) <https://doi.org/10.5817/CZ.MUNI.M201-9983-2021>.
2. Gómez-Chacón, I. M. & Vivier, L. (Ed.) (2016) (Ed.) Mathematical work: the role of teacher, knowledge and interactions. *Special issue in BOLEMA Journal Boletim de Educação Matemática (Mathematics Education Bulletin)*, 30 vol. n.54. ISSN 0103-636X

Research book chapters

1. Nechache, A. & Gómez-Chacón I.M. (2022). Methodological aspect in the theory of Mathematical Working Spaces, In A. Kuzniak et al. (eds.), *Mathematical Work in Educational Context, Mathematics Education in the Digital Era*. Springer. ISBN: 978-3-030-90849-2
2. Gómez-Chacón I.M. (2022) Mathematics teachers' knowledge and professional development: a cross-case comparison study. In A. Kuzniak et al. (eds.), *Mathematical Work in Educational Context, Mathematics Education in the Digital Era* 18, Switzerland: Springer. ISBN: 978-3-030-90849-2
3. Gómez Chacón, I. M. & De La Fuente, C. (2019). Exploring teacher's epistemic beliefs and emotions in inquiry-based teaching of mathematics, In Chamberlin, S. and Sriraman, B. (Eds.) *Affect and mathematical modeling. Advances in Mathematics Education*. (pp. 131-157). Switzer.: Springer. ISBN:978-3-030-04432-9. https://doi.org/10.1007/978-3-030-04432-9_9
4. Gómez-Chacón, I. M. and De la Fuente, C. (2018). Problem-Solving and Mathematical Investigation: creative processes, actions and mediations, In N. Amado, S. Carreira and K. Jones, (Ed.) *Broadening the scope of research on mathematical problem solving: A focus on technology, creativity and affect*. (pp. 347- 373). Switzerland: Springer.
5. Gómez-Chacón, I. M^a (2017) Appraising emotion in mathematical knowledge: reflections on methodology, In Xolocotzin Eligio, U. (Ed.) *Understanding emotions in mathematical thinking and learning*, Elsevier Academic Press. ISBN: 978-0-12-802218-4
6. Gómez-Chacón, I. M. (2015). Meta-emotion and Mathematical modeling processes in computerized environments, In B. Pepin & B. Rösken-Winter (Editors) *From beliefs and affect*



to dynamic systems in mathematics education. Exploring a mosaic of relationships and interactions. (pp. 201-226). Switzerland: Springer. ISBN:978-3-319-068007-7.

C.2. Congress

1- Since 2015 as co-leader of TWG 8: *Affect and the teaching and learning of mathematics*, in CERME (*Congress of the European Society for Research in Mathematics Education, European Society for Research in Mathematics Education*).

2. Since 2014 member of the Scientific Committee and coordinator of the Theme 3 of the *ETM-Symposium Mathematical Working Space* held in several countries: ETM4-2014 (Spain), ETM5-2016 (Greece), ETM6-2018 (Chili), ETM7-2022 (France). President in ETM4, held in Madrid. Also, editor of the Proceedings book in three languages: French, Spanish and English of ETM4 (Spain), ETM5 (Greece), ETM6 (Chili), ETM7 (France).

3. 2017- Member of the scientific committee International Conference Education and Psychology Challenges- Teachers for the Knowledge Society, May 2017, Ploiesti, Romania.

4. 2016- Invited Regular Lecture: Gómez-Chacón, I. M. (2016). Hidden Connections, Double Meanings: A Mathematical Exploration of Affective and Cognitive Interactions in Learning, Invited Regular Lecture, 13th International Congress on Mathematical Education, Universidad Hamburg, Hamburg (Germany), 24- 31 July 2016. In ISBN: 978-3-319-72169-9 Springer.

C.3. Research projects

1. 2023- Proyecto Nacional Generación de Conocimiento 2022: “Diseño de herramientas basadas en biomarcadores para la identificación y tratamiento de la ansiedad matemática desde una aproximación inclusiva”. (PID2022-138325OB-I00). IP: Gómez-Chacón and Marbán.

2. 2018-2022 Proyecto Europeo “Supporting the Promotion of Equality in Research and Academia (SUPERA)” Comisión Europea, Call Investigación H2020 (Nº de Contrato: 787829). IP: Universidad Complutense de Madrid. The applicant is a member and mathematics coordinator, 431.087,50 €

3. 2018-2021 Proyecto Europeo “Partnership for the Learning And Teaching IN University Mathematics (PLATINUM)”, (2018-1-NO01-KA203-038887). IP: University of Agder (Norway): Yuriy Rogovchenko. The applicant national coordinator responsible at international level for two lines of the project. 417.570€.

4. 2014-2017 Caracterización del conocimiento especializado del profesorado de Matemáticas, EDU2013-44047-P, Ministerio de Economía y Competitividad, realización 01/01/2014 a 31/12/2017. Investigador principal: J. Carrillo and L.C. Contreras, Universidad de Huelva. As member, 20.570€.

5- 2014-2015 Teachers’ professional knowledge: aspects of affect and mathematical modeling processes, Proyecto europeo NILS Science and Sustainability (ES07)) (007-ABEL-IM-2013) with HIST University and University of Agder (Norway). As IP: Gómez-Chacón, 6000 €.

6- 2009-2012- Cognition and education. Working memory, understanding and reasoning, Plan Nacional de I+D+I del Ministerio, PSI2008-00754/PSIC. IP: Juan Antonio García-Madruga, Universidad de Educación a Distancia. Research member 57.000 €

7- 2010- CONSOLIDER-INGENIO MATHEMATICA (CSD2006-00032), Ministerio de Educación y Ciencia (Program Consolider-Ingenio 2010). IP: Enrique Zuazua Iriondo (UAM)

C.4. Contracts, technological or transfer merits

1. Teaching material from research at the *UCM Miguel de Guzmán Chair*. Gómez-Chacón, I. M. (Ed.) (2011) ISBN: 978-84-694-6877-7; Corrales, C. & Gómez-Chacón, I. M^a (Eds) (2011) ISBN: 978-84-694-4316-3

2. Materials for teacher training with Ministry of Education, Gómez-Chacón, I. M^a. (Ed-coord) (2010). ISBN: 978-84-369-4932-2.

3- Participation in contracts and projects with companies. Didactic materials in electronic support for the Master in Management and Production in e-learning, Universidad Carlos III de Madrid and Fundación Telefónica, Fundación Encuentro and Educared. 2008.

4. Consultancy, technical studies and advice within the Service-learning Project in Master and Degrees in Madrid City Council. Collaboration agreement between Madrid City Council and Complutense University of Madrid (4-7-2017), in 2019 Youth Council of Alcobendas (Madrid).

5. Received awards and recognitions for her research, including the National Award for Educational Research and Innovation from the Ministry of Education and Culture (Spain) in 1998 and a distinction from the *European Commission, DG V, Directorate General for Employment, Industrial Relations and Social Affairs*. E International Council on Social Welfare (ICSW), 1999.