Part A. PERSONAL INFORMATION

		CV date	14/04/2023

First name	MARIANO
Family name	LUQUE

Gender (*)	MALE	Birth date (dd/mm/yyyy)	13/06/1972
Social Security, Passport, ID number	25330644P		
e-mail	mluque@uma.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		0000-0001-7151-1623	

(*) Mandatory

A.1. Current position

Position	FULL PROFESSOR
Initial date	21/10/2015
Institution	UNIVERSITY OF MALAGA
Department/Center	APPLIED ECONOMICS (MATHEMATICS)
Country	SPAIN	Teleph. number	+34 952 13 1173
Key words	OPERATIONAL RESEARCH, MULTIOBJECTIVE OPTIMIZATION, MULTIPLE CRITERIA DECISION MAKING, ECONOMICS OF EDUCATION, PORTFOLIO

A.2. Previous positions (research activity interuptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
14/11/1995 – 11/10/2000	ASSISTANT TEACHER / UNIVERSITY OF MALAGA
11/10/2000 – 19/11/2002	ASSOCIATE TEACHER / UNIVERSITY OF MALAGA
19/11/2002 – 20/10/2015	ASSOCIATE PROFESSOR / UNIVERSITY OF MALAGA
11/05/2004 – 30/09/2006	VICE-SECRETARY OF FACULTY / UNIVERSITY OF MALAGA
01/10/2006 – 08/07/2008	SECRETARY OF FACULTY / UNIVERSITY OF MALAGA
09/07/2008 – 31/10/2013	VICE-DEAN OF FACULTY / UNIVERSITY OF MALAGA

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
DEGREE IN MATHEMATICS (STATISTICS) (Grade 9 out of 10)	UNIVERSITY OF MALAGA	1995
DEGREE THESIS IN MATHEMATICS (STATISTICS)	UNIVERSITY OF MALAGA	1997
DOCTOR IN ECONOMY	UNIVERSITY OF MALAGA	2000

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

I have a degree in Mathematics (1995) with average score 9 (maximum 10), a Master degree in Mathematics (1997) and a PhD in Quantitative Economics (2000), both from the University of Malaga and with maximum qualification. My professional career has been developed in the Department of Applied Economics (Mathematics) of the University of Malaga, since I started in November 1995 as Assistant Professor. I am Full Professor since October 2015 (accredited since March 2012). I have four six-year periods, three six-year periods of research (2000-2005, 2006-2011, 2012-2017) and one six-year period of transfer (2000-2017).

As for my research career, Operations Research and in particular Multi-Objective Programming constitute my main line of research, having published numerous methods and theoretical results, many of them accompanied by their computational implementations. In parallel, I have used many of these techniques to solve different real applications in the field of Economics of Education, Worker Satisfaction, Energy, Child Poverty, etc.

The most remarkable results of my research work are:
- I am the principal investigator (PI) of the current project PID2020-115429GB-I00 recently funded by the National Scientific Research.
- I am the principal investigator (PI) of the node of the University of Malaga in the European Research Project called PROPLANET (Enhanced Safe and Sustainable coatings for supporting the Planet) within the call HORIZON-CL4-2022-RESILIENCE-01.

- I am the PI of the current PAIDI group of the Andalusian Government SEJ-532, granted during the last four years and which, has recently been granted a support technician with a 12+12 format within the Youth Guarantee System.
- I have published 55 JCR papers (62 publications in Scopus), more than half of which are in the first quartile in terms of impact factor, including one in the prestigious journal Management Science (position 3 of 60 in the year of publication) and another in Omega (position 2 of 73 in the year of publication). I also have 8 articles in the European Journal of Operational Research, which is always in the top positions in terms of impact factor and a true reference journal in the category.
- I have participated in 30 research projects in national and regional plans.
- I am an evaluator for the Spanish National Research Plan.
- I am an evaluator of the Romanian National Council for Research and Development.
- I am an evaluator of the Agency for the Quality of the University System of Castilla y León.
- I am an evaluator of the Agency for the Quality of the Galician University System.
- I am a reviewer for numerous international scientific journals.
- I have been invited to the last four editions of the expert meeting on Multiple Criteria Decision Making (MCDM) and Evolutionary Multiobjective Optimization (EMO) held every three years in Dagstuhl (2012, 2015, 2018, 2021).
- I have collaborations with some of the most prestigious researchers in the field of multiobjective programming (Kaisa Miettinen, Kalyanmoy Deb, Ralph E. Steuer, Jian-Bo Yang) transformed into several publications.
- I have been the organizer of several invited sessions in international and national conferences.
- I have been invited to be part of the committee for a doctoral thesis at the University of Manchester directed by the prestigious researcher Jian-Bo Yang.
- I have been external examiner for a doctoral thesis at the University of Jyväskylä directed by the prestigious researcher Kaisa Miettinen.
-I have been external evaluator for the position of Associate Professor for a candidate at The University of Manchester and also for the position of Full Professor.
- I am the representing person of the Faculty of Economic and Business Sciences in the Research Commission of the University of Málaga from 2013.

With respect to the **general indicators of quality of scientific production**:
According to Web of Science, I have 58 publications, with 1029 citations and an H-index of 17.
According to SCOPUS, I have 62 publications, with 1234 citations, with an h-index of 18.
According to Google Scholar, I have around 100 works, with 1742 citations, 1028 since 2017 with an average of 205 per year; I have a total h index of 24 and an i10 of 42.

The most remarkable results of my transfer work are:
- My group belongs to the Mathematics-Industry network (Math-In), where I am one of the two UMA's responsible investigators including the technological collaboration framework agreement between Repsol S.A. and Math-In.
- I have participated in 6 research and development agreements with companies.
- I have directed 4 Ph Doctoral Thesis.
- I am co-author of 4 software intellectual property registers.
- The UMA has just signed an agreement with CEPSA where our research group will have a thesis with an industrial doctorate.

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

C.1. Publications *(see instructions)*
Of the 36 Scopus publications (30 JCR papers) in the last 10 years, I highlight the most relevant ones:
1. Ruiz A.B., Luque M., Marcenaro-Gutierrez O.D. (2022). On the use of Synthetic Indexes Based on Multi-Criteria Decision Making to Study the Efficiency of Teachers, **Social Indicators Research**, 163 (3), pp. 1269-1300. DOI: 10.1007/s11205-022-02944-3. AC: Luque, M., 2/3
2. González-Gallardo, S., Henriques, C.O., Marcenaro-Gutierrez, O.D., Luque, M. (2022). A novel approach for exploring the trade-offs between several features of students' well-being, **International Transactions in Operational Research**, 29 (3), pp. 1723-1748. DOI: 10.1111/itor.12949. AC: Luque, M., 4/4
3. González-Gallardo, S., Saborido, R., Ruiz, A.B., Luque, M. (2021). Preference-based evolutionary multiobjective optimization through the use of reservation and aspiration points, **IEEE Access**, 9, art. no. 9503376, pp. 108861-108872. DOI: 10.1109/ACCESS.2021.3101899. AC: Luque, M., 4/4
4. Henriques, C.O., Lopez-Agudo, L.A., Marcenaro-Gutierrez, O.D., Luque, M. (2021). Reaching Compromises in Workers' Life Satisfaction: A Multiobjective Interval Programming Approach, **Journal of Happiness Studies**, 22 (1), pp. 207-239. DOI: 10.1007/s10902-020-00226-8. AC: Henriques, C.O., 4/4

5. Luque, M., Marcenaro-Gutierrez, O.D., Ruiz, A.B. (2020). Evaluating the global efficiency of teachers through a multi-criteria approach, **Socio-Economic Planning Sciences**, 70, art. no. 100676. DOI: 10.1016/j.seps.2018.12.003. AC: Ruiz, A.B., 1/3

6. Henriques, C.O., Inuiguchi, M., Luque, M., Figueira, J.R. (2020). New conditions for testing necessarily/possibly efficiency of non-degenerate basic solutions based on the tolerance approach, **European Journal of Operational Research**, 283 (1), pp. 341-355. DOI: 10.1016/j.ejor.2019.11.009. AC: Henriques, C.O., 3/4

7. Luque, M., Gonzalez-Gallardo, S., Saborido, R., Ruiz, A.B. (2020). Adaptive Global WASF-GA to handle many-objective optimization problems, **Swarm and Evolutionary Computation**, 54, art. no. 100644. DOI: 10.1016/j.swevo.2020.100644. AC: Saborido, R., 1/4

8. Ruiz, A.B., Saborido, R., Bermúdez, J.D., Luque, M., Vercher, E. (2020). Preference-based evolutionary multi-objective optimization for portfolio selection: a new credibilistic model under investor preferences, **Journal of Global Optimization**, 76 (2), pp. 295-315. DOI: 10.1007/s10898-019-00782-1. AC: Vercher, E., 4/5

9. Henriques, C., Luque, M., Marcenaro-Gutierrez, O. (2020). Coupling distinct MOLP interactive approaches with a novel DEA hybrid model, **International Transactions in Operational Research**, in press. DOI: 10.1111/itor.12879. AC: Henriques, C., 2/3

10. Henriques, C.O., Luque, M., Marcenaro-Gutierrez, O.D., Lopez-Agudo, L.A. (2019). A multiobjective interval programming model to explore the trade-offs among different aspects of job satisfaction under different scenarios, **Socio-Economic Planning Sciences,** 66, pp. 35-46. DOI: 10.1016/j.seps.2018.07.004. AC: Luque, M., 2/4

11. Luque, M., Pérez-Moreno, S., Robles, J.A., Rodriguez, B. (2017). Measuring Child and Maternal Health in Developing Countries: A Proposal of New Hybrid MDG Composite Indices, **Applied Research in Quality of Life**, 12 (3), pp. 737-758. DOI: 10.1007/s11482-016-9487-2. AC: Pérez-Moreno, S., 1/4

12. Saborido, R., Ruiz, A.B., Luque, M. (2017). Global WASF-GA: An evolutionary algorithm in multiobjective optimization to approximate the whole pareto optimal front, **Evolutionary Computation**, 25 (2), pp. 309-349. DOI: 10.1162/EVCO_a_00175. AC: Luque, M., 3/3

13. Marcenaro-Gutierrez, O.D., Luque, M., Lopez-Agudo, L.A. (2016). Balancing Teachers' Math Satisfaction and Other Indicators of the Education System's Performance, **Social Indicators Research**, 129 (3), pp. 1319-1348. DOI: 10.1007/s11205-015-1162-8. AC: Marcenaro-Gutierrez, O.D., 2/3

14. Luque, M., Pérez-Moreno, S., Rodríguez, B. (2016). Measuring Human Development: A Multi-criteria Approach, **Social Indicators Research**, 125 (3), pp. 713-733. DOI: 10.1007/s11205-015-0874-0. AC: Rodríguez, B., 1/3

15. Pérez-Moreno, S., Rodríguez, B., Luque, M. (2016). Assessing global competitiveness under multi-criteria perspective, **Economic Modelling**, 53, pp. 398-408. DOI: 10.1016/j.econmod.2015.10.030. AC: Pérez-Moreno, S., 3/3

16. Saborido, R., Ruiz, A.B., Bermúdez, J.D., Vercher, E., Luque, M. (2016). Evolutionary multi-objective optimization algorithms for fuzzy portfolio selection, **Applied Soft Computing Journal**, 39, pp. 48-63. DOI: 10.1016/j.asoc.2015.11.005. AC: Ruiz, A.B., 5/5

17. Miettinen, K., Podkopaev, D., Ruiz, F., Luque, M. (2015). A new preference handling technique for interactive multiobjective optimization without trading-off, **Journal of Global Optimization**, 63 (4), pp. 633-652. DOI: 10.1007/s10898-015-0301-8. AC: Miettinen, K., 4/4

18. Ruiz, A.B., Sindhya, K., Miettinen, K., Ruiz, F., Luque, M. (2015). E-NAUTILUS: A decision support system for complex multiobjective optimization problems based on the NAUTILUS method, **European Journal of Operational Research**, 246 (1), pp. 218-231. DOI: 10.1016/j.ejor.2015.04.027. AC: Miettinen, K., 5/5

19. Ruiz, A.B., Luque, M., Ruiz, F., Saborido, R. (2015). A combined interactive procedure using preference-based evolutionary multiobjective optimization. Application to the efficiency improvement of the auxiliary services of power plants, **Expert Systems with Applications**, 42 (21), pp. 7466-7482. DOI: 10.1016/j.eswa.2015.05.036. AC: Ruiz, A.B., 2/4

20. Ruiz, A.B., Saborido, R., Luque, M. (2015). A preference-based evolutionary algorithm for multiobjective optimization: the weighting achievement scalarizing function genetic algorithm, **Journal of Global Optimization**, 62 (1), pp. 101-129. DOI: 10.1007/s10898-014-0214-y. AC: Luque, M., 3/3

21. Luque, M., Marcenaro-Gutiérrez, O.D., López-Agudo, L.A. (2015). On the potential balance among compulsory education outcomes through econometric and multiobjective programming analysis, **European Journal of Operational Research**, 241 (2), pp. 527-540. DOI: 10.1016/j.ejor.2014.09.007. AC: Luque, M., 1/3

22. Luque, M. (2015). Modified Interactive Chebyshev Algorithm (MICA) for non-convex multiobjective programming, **Optimization Letters**, 9 (1), pp. 173-187. DOI: 10.1007/s11590-014-0743-9. AC: Luque, M., 1/1

23. Luque, M., Lopez-Agudo, L.A., Marcenaro-Gutierrez, O.D. (2015). Equivalent reference points in multiobjective programming, **Expert Systems with Applications**, 42 (4), pp. 2205-2212. DOI: 10.1016/j.eswa.2014.10.028. AC: Luque, M., 1/3

C.2. Congress

I have presented more than 70 communications, around 50 to international conferences and the rest national, several of them by invitation. I have given several invited seminars and conferences including in the University of Manchester, University of Jyvaskyla, Helsinki Business School, University of Valencia, etc.

C.3. Research projects
Of the 30 research projects, I indicate the last six (I am PI in all six):
1. Reference: HORIZON-CL4-2022-RESILIENCE-01-23. Title: ENHANCED SAFE AND SUSTAINABLE COATINGS FOR SUPPORTING THE PLANET (PROPLANET). Principal Investigators of UMA: Mariano Luque Gallego – Ana Belén Ruiz Mora. European Commission Horizonte 2020. January 2023 - December 2025. Grant: 247.500 EUR.
2. Reference: PID2020-115429GB-I00. Title: NEW APPROACHES IN MULTIOBJECTIVE OPTIMIZATION THROUGH ALGORITHM-DECISION MAKER INTERACTION. APPLICATIONS TO ACADEMIC PERFORMANCE AND CHILD POVERTY. Principal Investigators: Mariano Luque Gallego – Salvador Pérez Moreno. Spanish National Research Plan. September 2021 – August 2024. Grant: 50.578 EUR.
3. Reference: UMA18-FEDERJA-024. Title: CAUSAL EVALUATION OF THE FACTORS THAT HINDER THE ACADEMIC PROGRESS OF ANDALUSIAN STUDENTS. Principal Investigators: Mariano Luque Gallego – Oscar David Marcenaro Gutiérrez. Andalusian Regional Research Plan. November 2019 – October 2021. Grant: 32.602 EUR.
4. Reference: ECO2017-88883-R. Title: OPTIMAL DESIGN OF EDUCATIONAL POLICIES BASED ON THE ANALYSIS OF LONGITUDINAL CENSUS DATA. Principal Investigators: Mariano Luque Gallego – Oscar David Marcenaro Gutiérrez. Spanish National Research Plan. January 2018 – December 2020. Grant: 24.200 EUR.
5. Reference: SEJ-532. Title: MULTIPLE CRITERIA OPTIMIZATION AND ECONOMIC MODELING APPLIED TO THE SOCIO-ECONOMIC FIELD. Principal Investigator: Mariano Luque Gallego. Andalusian Regional Research Plan. Annuities: 2018, 2019, 2020. Grant: 6.620 EUR each annuity.
6. Reference: ECO2014-56397-P. Title: OPTIMAL DECISION MAKING IN EDUCATION POLICY BASED ON REAL DATA ANALYSIS. Principal Investigators: Mariano Luque Gallego – Oscar David Marcenaro Gutiérrez. Spanish National Research Plan. January 2015 – December 2017. Grant: 22.900 EUR.

C.4. Contracts, technological or transfer merits
From the six research and development agreements with companies, indicate the last ones:
Contract: CARRYING OUT AN EDUCATIONAL EVALUATION OF STUDENTS FROM SCHOOLS IN THE VALENCIAN COMMUNITY, WITHIN THE FRAMEWORK OF EDUCAIXA'S PROGRAMME FOR THE EVALUATION OF EDUCATIONAL PROGRAMMES.
Financing company: Fundación Bancaria la Caixa
Participating entities: University of Malaga
Period: October 2018 – July 2019
Responsible Investigator: Oscar D. Marcenaro Gutiérrez
Funding: 54.394 € + IVA

Contract: REALIZACIÓN DE UN "SISTEMA INFORMÁTICO PREDICTIVO EMPRESARIAL"
Financing company: Novasoft Ingeniería S.L.
Participating entities: University of Malaga, Technological Corporation of Andalusia
Period: July 2011 – June 2013
Responsible Investigator: José Manuel Cabello González
Presupuesto: 58.000 € + IVA

From the four patents, indicate two of them:
Inventors (signature order): Luque, M., Ruiz, F., Cabello, J.M.
Title: INSYST (Sistema Interactivo Multiobjetivo)
Application No.: MA-1009-2009 Country of priority: Spain   Date of priority: 18/10/2011

Inventors (signature order): Ruiz, A.B., Ruiz, F., Cabello, J.M., Luque, M., González, S.
Title: SOFTWARE FOR THE DIMENSIONING OF A SOLAR HEAT PLANT.
Application No.: MA-00262-2012 Country of priority: Spain   Date of priority: 10/04/2012