## Part A. PERSONAL INFORMATION

| | |
|---|---|
| First Name | Maria |
| Family Name | Merino Maestre |
| Sex | Not Specified | Date of Birth | |
| ID number Social Security, Passport | |
| URL Web | https://sites.google.com/view/maria-merino-maestre/en |
| Email Address | |
| Open Researcher and Contributor ID (ORCID) | 0000-0002-4947-2784 |

### A.1. Current position

| | |
|---|---|
| Job Title | Profesorado Agregado |
| Starting date | 2011 |
| Institution | UPV/EHU |
| Department / Centre | Matemáticas / Facultad de Ciencia y Tecnología |
| Country | | Phone Number | |
| Keywords | Linear programming; Models of determinist nets and stochastics |

### A.3. Education

| Degree/Master/PhD | University / Country | Year |
|---|---|---|
| Doctor por la Universidad del País Vasco | Universidad del País Vasco | 2005 |
| Licenciada en Ciencias. Especialidad: Matemáticas | Universidad del País Vasco | 1999 |

## Part B. CV SUMMARY

## Part C. RELEVANT ACCOMPLISHMENTS

### C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (nº x / nº y): position / total authors. If applicable, indicate the number of citations

1 **Scientific paper**. Luis Martínez; María Merino; Juan Manuel Montoya. 2022. An integer programming model for obtaining cyclic quasi-difference matrices  Operations Research Perspectives. Springer. 10-100260, pp.100260.
2 **Scientific paper**. Imanol; María; J.A.2022. A Mathematical Analysis of EDAs with Distance-based Exponential Models  Memetic Computing. Springer. 14, pp.305-334.
3 **Scientific paper**. José Domingo; Maria; Ilargi. 2022. Children's drawing of plant life in the time of COVID-19: an analysis of the changes related to the content and colour over a two-year period.Children. 9-6, pp.862.
4 **Scientific paper**. Gorka Kobeaga; Maria Merino; Jose A. Lozano. 2021. On solving cycle problems with Branch-and-Cut: extending shrinking and exact subcycle elimination separation algorithms  Annals of Operations Research. Springer.
5 **Scientific paper**. Ilargi Zaballa; Maria Merino; José Domingo Villarroel. 2021. Children's Pictorial Expression of Plant Life and Its Connection with School-Based Greenness Sustainability.

6 **Scientific paper**. J. D. Villarroel; Maria Merino; Alvaro Anton. 2021. Young Children's Spontaneous Use Of Isometric And Non-Isometric Symmetries: A Study Regarding Their Unprompted Depictions of Plant Life  Journal of Biological Education. Taylor and Francis Online.

7 **Scientific paper**. Iker Montes-Bageneta; Urtzi Akesolo; Sara Lopez; Maria Merino; Eneritz Anakabe; Sonia Arrasate. 2020. Pollutants in Organic Chemistry and Medicinal Chemistry Education Laboratory. Experimental and Machine Learning Studies  Current Topics in Medicinal Chemistry.

8 **Scientific paper**. Jose Domingo Villarroel; Maria Merino; Alvaro Anton. 2019. Symmetrical motifs in young children's drawings: A study on their representations of plant life  Symmetry.

9 **Scientific paper**. Unai Aldasoro; Maria Merino; Gloria Perez. 2019. Time consistent expected mean-variance in multistage stochastic quadratic optimization: a model and a matheuristic  Annals of Operations Research.

10 **Scientific paper**. Gorka Kobeaga Urriolabeitia; Maria Merino Maestre; Jose A. Lozano Alonso. 2018. An efficient evolutionary algorithm for the orienteering problem.Computers and Operations Research.

11 **Scientific paper**. Unai Aldasoro; Laureano Escudero; Maria Merino; Gloria Perez. 2017. A parallel Branch-and-Fix Coordination based matheuristic algorithm for solving large sized multistage stochastic mixed 0–1 problems  European Journal of Operational Research.

12 **Scientific paper**. Julene Escudero; Maria Merino. 2017. Some measures in risk management and two-stage stochastic optimization  BEIO.

13 **Scientific paper**. Julene Escudero; Maria Merino. 2016. A brief introduction to two-stage Stochastic Optimization  BEIO.

14 **Scientific paper**. Laureano Escudero; Araceli Garin; Maria Merino; Gloria Perez. 2016. On time stochastic dominance induced by mixed integer-linear recourse in multistage stochastic programs  European Journal of Operational Research.

15 **Scientific paper**. Unai Aldasoro; Laureano Escudero; Maria Merino; Juan F. Monge; Gloria Perez. 2015. On parallelization of a stochastic dynamic programming algorithm for solving large-scale mixed 0–1 problems under uncertainty  TOP.

16 **Scientific paper**. Unai Aldasoro; Laureano Escudero; Maria Merino; Gloria Perez. 2013. An algorithmic framework for solving large-scale multistage stochastic mixed 0–1 problems with nonsymmetric scenario trees. Part II: Parallelization  Computers and Operations Research.

17 **Scientific paper**. Unai Aldasoro; Laureano Escudero; Maria Merino; Gloria Perez. 2012. An algorithmic framework for solving large-scale multistage stochastic mixed 0–1 problems with nonsymmetric scenario trees.Computers and Operations Research. 39, pp.1133-1144.

18 **Scientific paper**. Unai Aldasoro; Laureano Escudero; Maria Merino; Gloria Perez. 2012. Erratum: An algorithmic framework for solving large-scale multistage stochastic mixed 0–1 problems with nonsymmetric scenario trees.Computers and Operations Research. 39, pp.2266-2266.

19 **Scientific paper**. Laureano Escudero; Araceli Garin; Maria Merino; Gloria Perez. 2010. An exact algorithm for solving large-scale two-stage stochastic mixed-integer problems: Some theoretical and experimental aspects  European Journal or Operational Research.

20 **Scientific paper**. Laureano Escudero; Araceli Garin; Maria Merino; Gloria Perez. 2010. On BFC-MSMIP strategies for scenario cluster partitioning, and twin node family branching selection and bounding for multistage stochastic mixed integer programming  Computers and Operations Research.

21 **Scientific paper**. Laureano Escudero; Araceli Garin; Maria Merino; Gloria Perez. 2009. A general algorithm for solving two-stage stochastic mixed 0–1 first-stage problems  Computers and Operations Research.

22 **Scientific paper**. Laureano Escudero; Araceli Garin; Maria Merino; Gloria Perez. 2009. BFC-MSMIP: an exact branch-and-fix coordination approach for solving multistage stochastic mixed 0–1 problems  TOP.

23 **Scientific paper**. Laureano Escudero; Araceli Garin; Maria Merino; Gloria Perez. 2007. The value of the stochastic solution in multistage problems  TOP.

24 **Scientific paper**. Maria Merino; Fernando Vadillo. 2007. Mathematical finance with MATLAB©  Revista de métodos cuantitativos para la economía y la empresa.

25 **Scientific paper**. Laureano Escudero; Araceli Garin; Maria Merino; Gloria Perez. 2006. A two-stage stochastic integer programming approach as a mixture of Branch-and-Fix Coordination and Benders Decomposition schemes  Annals of Operations Research.

26 **Scientific paper**. Laureano Escudero; Araceli Garin; Maria Merino; Gloria Perez. 2006. On multistage Stochastic Integer Programming for incorporating logical constraints in asset and liability management under uncertainty  Computational Management Science.

27 **Book chapter**. Imanol Unanue; Maria Merino; Jose A. Lozano. 2019. A mathematical analysis of EDAs with distance-based exponential models  GECCO 2019 Companion - Proceedings of the 2019 Genetic and Evolutionary Computation Conference Companion.

28 **Book chapter**. Leire Escajedo; Maria Merino. 2015. Connecting learning processes and strategies towards the reduction of food poverty: a collaborative experience between the University of the Basque Country and social inclusion NGOs  Envisioning a future without food waste and food poverty.

29 **Book chapter**. Laureano Escudero; Araceli Garin; Maria Merino; Gloria Perez. 2011. On solving strong multistage nonsymmetric stochastic mixed 0-1 problems   Operations Research Proceedings 2011.


## C.2. Conferences and meetings

1 Maria Merino. Matematikariok eta Iraunkortasuna. Aplikazio batzuk Ikerkuntza Operatiboaren eskutik. Matematikari Euskaldunen V. Topaketa. 2022. Spain.

2 Maria Merino; Unai Aldasoro; Gloria Perez. Time consistent stochastic dominance risk strategies induced by multistage quadratic mixed-integer stochastic optimization. European Conference on Combinatorial Optimization ECCO XXXV - CO 2022. 2022.

3 Unai Aldasoro; Maria Merino. Coupled and Decoupled Stochastic Dominance within multistage optimization.. XXXIX CONGRESO NACIONAL DE ESTADÍSTICA E INVESTIGACIÓN OPERATIVA. 2022.

4 Imanol Unanue; Maria Merino; Jose A Lozano. Mathematical Modeling and Analysis of Combinatorial Optimization. XIX CONFERENCIA DE LA ASOCIACIÓN ESPAÑOLA PARA LA INTELIGENCIA ARTIFICIAL CAEPIA 20/21. 2021. Spain.

5 Maria Merino; Unai Aldasoro. Coupled and Decoupled Stochastic Dominance Induced by Multistage Quadratic Optimization. 31st European Conference on Operational Research. 2021. Greece.

6 Imanol Unanue; Maria Merino; Jose A Lozano. A General Framework Based on Walsh Decomposition for Combinatorial Optimization Problems. IEEE Congress on Evolutionary Computation. 2021. Poland.

7 Imanol Gago; Unai Aldasoro; Josu Ceberio; Maria Merino. A two stage stochastic optimization model for ambulance location-allocation under coverage equity and response time efficiency.. 34th Conference of the European Chapter on Combinatorial Optimization. 2021. Spain.

8 Unai Aldasoro; Larraitz Aranburu; Isabel Eguia; Laureano Escudero; Araceli Garin; Imanol Gago; Gorka Kobeaga; Maria Merino; Gloria Perez; Celeste Pizarro; Aitziber Unzueta. Stochastic network optimization for intelligent transport and logistics. VII Jornadas de Investigación de la Facultad de Ciencia y Tecnología. 2020. Spain.

9 Unai Aldasoro; Maria Merino; Gloria Perez. Expected Mean-Variance Risk In Multistage Quadratic Stochastic Optimization. XV International Conference on Stochastic Programming ICSP XV. 2019. Norway.

10 Unai Aldasoro; Maria Merino; Gloria Perez. A New Multicriteria Time Consistent Risk Strategy For Quadratic Stochastic Optimization. XV International Conference on Stochastic Programming ICSP XV. 2019. Norway.


## C.3. Research projects and contracts

1 **Project**. Grupo de investigación en Estadística y Optimización (EOPT). IT-1494-22. Aitziber Unzueta (IP1) and M.A. Garín (IP2). (Basque Government). 01/01/2022-31/12/2025. 34.000 €.

2 **Project**. Grupo de Investigación en Estadística y Optimización (Êopt). M. A. Garin (IP1) and Maria Merino (IP2). (Universidad del País Vasco). 01/01/2021-31/12/2023. 12.320 €.

3. **Project**. Optimización de redes estocásticas para transporte y logística inteligente, PID2019-104933GBI00. Maria Merino (IP1) and Gloria Pérez (IP2). (Ministerio de Ciencia e Innovación). 01/06/2020-31/05/2023. 55.660 €.
4. **Project**. Grupo de investigación consolidado en Estadística y Optimización, GIU17/11. Maria Araceli Garin (IP1) and Maria Merino (IP2). (Universidad del País Vasco). 21/12/2017-20/12/2020. 20.350 €.
5. **Project**. Análisis Multivariante, Optimización y Técnicas de Imputación PPGI17/19. Araceli Garin. (Universidad del País Vasco). 01/01/2017-31/12/2018. 12.000 €.
6. **Project**. Algoritmos Matheurísticos y computación de alto rendimiento para la optimización de redes estocásticas. Gloria Perez Sainz de Rozas. (Ministerio de economia y competitividad). 01/01/2016-31/12/2018. 33.000 €.
7. **Project**. Computación en paralelo y algoritmos de descomposición en optimización estocástica mixta entera con aplicaciones, MTM2012-31514.. Gloria Perez Sainz de Rozas. (Ministerio de economia y competitividad). 01/01/2013-31/12/2015. 62.010 €.
8. **Project**. Grupo de Investigación en Estadística y Optimización. IT-567-13. Maria Araceli Garin Martin. (Gobierno Vasco). 01/01/2013-31/12/2015. 50.000 €.
9. **Project**. Métodos avanzados para la visualización del subsuelo. Ignacio Murga Urquiza. (Programa Iberoamericano de Ciencia y Tecnología para el Desarrollo). 01/01/2012-31/12/2015. 132.000 €.
10. **Project**. Grupo de Investigación en Estadística y Optimización. IT-347-10. Araceli Garin. (Gobierno Vasco). 01/01/2010-31/12/2012. 78.500 €.
11. **Contract**. Heuristic Optimization for Emergency Healthcare  Unai Aldasoro Marcellan. 15/12/2022-15/12/2026.
12. **Contract**. Heuristic Optimization for Emergency Healthcare  Gloria Perez Sainz de Rozas. 01/11/2019-01/01/2021. 37.500 €.
13. **Contract**. Optimización del reaprovisionamiento en una gran cadena de tiendas  Mikel Lezaun Iturralde. 28/04/2008-29/12/2009. 85.000 €.