



## CURRICULUM VITAE (CVA)

### Part A. PERSONAL INFORMATION

|  |                     |                         |                  |
|--|---------------------|-------------------------|------------------|
|  |                     | <b>CV date</b>          | 10/12/2021       |
| First name                                     | Rafael              |                         |                  |
| Family name                                    | Martí Cunquero      |                         |                  |
| Gender (*)                                     | Male                | Birth date (dd/mm/yyyy) | 05/10/1967       |
| ID number                                      | 29166259M           |                         |                  |
| e-mail   | rafael.marti@uv.es  | URL Web:                | www.uv.es/rmartí |
| Open Researcher and Contributor ID (ORCID) (*) | 0000-0001-7265-823X |                         |                  |

#### A.1. Current position

|                   |  |                         |           |
|-------------------|--|-------------------------|-----------|
| Position          | (Full) Professor                                   |                         |           |
| Initial date      | October, 2007                                      |                         |           |
| Institution       | Universidad de Valencia                            |                         |           |
| Department/Center | Estadística e Invest. Operativa                    | Facultad de Matemáticas |           |
| Country           | Spain  | Phone                   | 963543090 |
| Key words         | Optimization; Mathematical Programming; Heuristics |                         |           |

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

| Period      | Position/Institution/Country/Interruption cause       |
|-------------|---|
| 1998 - 2007 | Associate Professor / Universidad de Valencia / Spain |
| 1993 - 1998 | Assistant Professor / Universidad de Valencia / Spain |

#### A.3. Education

| PhD, Licensed, Graduate | University/Country      | Year |
|-------------------------|-------------------------|------|
| Licensed in Mathematics | Universidad de Valencia | 1989 |
| PhD Mathematics         | Universidad de Valencia | 1994 |

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

Rafael Martí is Professor of Statistics and Operations Research at the University of Valencia, Spain. He received a doctoral degree in Mathematics from the University of Valencia in 1994. He has done extensive research in metaheuristics for hard optimization problems. Dr Martí has about 200 publications, half of them in indexed journals (JCR), including EJOR, Inform's JoC, Information Sciences, C&OR or Applied Soft Computing. He is the co-author of several monographic books: Scatter Search (Kluwer 2003), The Linear Ordering Problem (Springer 2011), Metaheuristics for Business Analytics (Springer 2018), and has just finished Exact and Heuristic Methods in Combinatorial Optimization, that will be published by Springer soon. Prof. Martí has secured an American patent, and recently co-edited the Handbook of Heuristics, a 3-volume reference in the area, published by Springer. Prof. Martí has supervised 7 doctoral and 14 Master thesis.

Prof. Martí is currently Area Editor in the Journal of Heuristics, and Associate Editor in seven journals, including the European Journal of Operational Research and Math. Prog. Computation. He is Senior Research Associate of the private company OptTek Systems (USA), and has given more than 50 invited and plenary talks. Dr. Martí has been invited Professor in many universities, including the University of Colorado (USA), the University of Molde (Norway), the University of Wien (Austria), the University of Bretagne-Sud (France), or the University College of Dublin (Ireland). He coordinates the Spanish Network on Metaheuristics, funded by the Spanish government as a Network of excellence, and has been in the organizing and program committees of a large number of international conferences in optimization, mathematical programming and metaheuristics.



According to the Spanish national evaluation system, Prof. Martí has:

- 6 positive teaching periods (quinquennios docentes): 1990 – 1994, 1995 – 1999, 2000 – 2004, 2005 – 2009, 2010 – 2014, 2015 – 2019
- 4 positive research periods (sexenios investigación): 1993 – 1998, 1999 – 2004, 2005 – 2010, 2011 – 2016
- 1 positive technology transfer period (tramo de transferencia): 1999 – 2012

Prof. Martí has been project evaluator for the following agencies: National Science Foundation (USA) in 2002, Agencia Nacional de Evaluación y Prospectiva ANEP, 2006 – 2015; Agencia Nacional Científica de Argentina 2007 – 2009, European Research Council – ERC, 2009, AND Austrian Science Fundation (FWF), 2010. He was also board member of the Spanish evaluation comitee of research projects.

Rafael Martí has been also appointed by some universities to evaluate their researchers. In particular, the Senate of the Karl-Franzens University (Austria), Research Foundation Flanders – FWO (Belgium Agency of Research), University of Vienna, and the American University of Beirut.

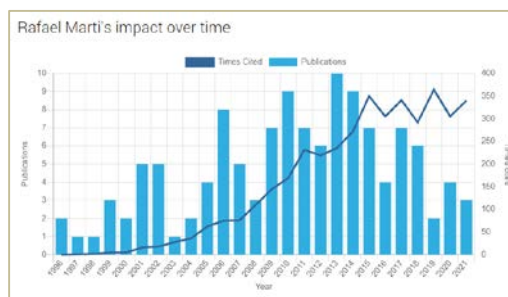
Rafael Martí received the Doctoral Award (Premio Extraordinario de Doctorado), as well as the following awards:

- Test-of-Time award of the INFORMS journal on computing to the most cited paper in 2018 and its relevance in the 2004-2018 period.
- Research fellowship from the Ministerio de Educación Cultura and Deporte (PRX12-00016) for a research visit in the University de Colorado (USA) June to August 2013.
- “Faculty-In-Residence-Summer-Term” Grant 2012 from the University of Colorado (USA) to teach on the Leeds school of Business as an invited Professor
- Research fellowship from the Université de Bretagne-Sud to work on research projects on the STICC/UBS Laboratory on 2012
- Rómulo Garza award by the Instituto Tecnológico de Monterrey (México) in 2010 on Science and Technology.
- Research fellowship from the Ministerio de Educación Cultura and Deporte (PR2002-0060) for a research visit in the University de Colorado (USA) July to September 2002.
- Lecturer Scholarship from the Ministerio de Educación and Ciencia in the Quality doctoral program to lecture a course in the University Politécnica de Cataluña.

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

Prof. Martí merits and research activity is first summarized in numbers in the following tables and figures, and then itemized to explicitly cite the most relevant in the last 10 years.

| Publications / Talks   | Last 10 years | Total  |
|------------------------|---------------|--------|
| Journal papers         | 64            | 121    |
| JCR: Q1, Q2            | 40, 10        | 62, 36 |
| Book chapters          | 18            | 65     |
| Books                  | 4             | 6      |
| Plenary/ invited talks | 10            | 52     |
| Contributed talks      | 50            | 95     |
| Patents                | 0             | 1      |



Publication and cites (Web of Science -Publons)

| Citation indicators    | Source         |        |                |
|------------------------|----------------|--------|----------------|
|                        | Google Scholar | Scopus | Web of Science |
| Number of publications | 282            | 139    | 126            |
| h-index                | 55             | 34     | 31             |
| Number of cites        | 12166          | 4432   | 4009           |



Google scholar also provides some indicators limited to the last 5 years. In that case, the number of cites is 4645, and the h-index is 36.

| Other research contributions         | Last 10 years | Total |
|--------------------------------------|---------------|-------|
| Public funded projects               | 7             | 19    |
| Contracts with companies             | 2             | 5     |
| Research stays in other universities | 23            | 33    |

From the 19 funding projects, Prof. Martí has been the supervisor (IP) in 10 of them.

### C.1. Publications (10 most recent Q1-JCR)

- Martí, R., Martínez-Gavara, A., Sánchez-Oro, J., and Pérez-Peló, S. (2022), S. A review on discrete diversity and dispersion maximization from an OR perspective, **European Journal of Operational Research**, (Invited review), forthcoming.
- Martínez-Gavara, A., Corberán, T., Martí, R. (2021), GRASP and Tabu Search for the Generalized Dispersion Problem, **Expert Systems with Applications**, 173, 114703).
- Martí, R., Martínez-Gavara, A., Sánchez-Oro, J. (2021) The Capacitated Dispersion Problem: A mathematical model and a scatter search metaheuristic, **Memetic Computing** 13, 131-146.
- Parreño, Francisco, Ramón Álvarez-Valdés, Rafael Martí (2021) Measuring diversity. A review and an empirical analysis, **European Journal of Operational Research** 289, 515-532.
- Delgado, L., Caballero, R., Sánchez-Oro, J., Colmenar, J.M., Martí, R. (2020) Iterated Greedy with VNS for a MultiObjective Waste Collection Problem, **Expert Systems with Applications** 145, 113101.
- Peng, Bo, Donghao Liu, Zipheng Lü, Rafael Martí, Junwen Ding (2020) Adaptive memory programming for the dynamic bipartite drawing problem, **Information Sciences** 517, 183-197.
- Pastore, T., Martínez-Gavara, A., Napoletano, A., Festa, P., Martí, R. (2020), Tabu Search for Min-Max Edge Crossings in Graphs, **Computers and Operations Research** 114, 104830.
- Peiró, J., A. Corberán, F. Saldanha-de-Gama, R. Martí. (2019) Heuristic Solutions for a Class of Stochastic Uncapacitated p-Hub Median Problems, **Transportation Science** 53(4), 917-1212.
- Colmenar, J.M., Martí, R., Duarte, A. (2018) Heuristics for the Bi-Objective Diversity Problem, **Expert Systems with Applications** 108, 193-205.
- Colmenar, J.M., R. Martí, A. Duarte. (2018) Multi-Objective Memetic Optimization for the Bi-Objective Obnoxious p-Median Problem, **Knowledge-Based Systems** 144, 88-101.

### C.2. Congress (10 most relevant invited talks)

- Martí, R. and Martinez-Gavara A., Optimization in Graph Drawing, Metaheuristics Summer School, June 15-18, 2021, Catania, Italy.
- Martí, R. and Martinez-Gavara A., Models and Heuristics in Discrete Diversity Maximization, Metaheuristics Summer School, June 15-18, 2021, Catania, Italy.
- Martí, R., Optimization in Graph Drawing, The Chinese University of Hong Kong, April 23, 2021, Hong Kong.
- Martí, R., Heuristics in Graph Drawing, Euro working group on Metaheuristic conference EU/Meeting2019, SINTEF, Oslo Norway, May 2019.
- Martí, R., Optimización Bioinspirada, Facultad de Ciencias de la Universidad de Cantabria, Santander, March 2019.
- Martí, R., Laguna, M., Black-Box Solvers in Combinatorial Optimization, Metaheuristic International Conference, Barcelona, July 2017.



- Martí, R., Adaptive Memory Programming, Project Management and Scheduling, Valencia, April 2016
- Martí, R., Black-Box Solvers in Combinatorial Optimization, International conference on industrial engineering and systems management, Sevilla, October 2015.
- González Velarde, J.L, R. Martí, A. Duarte, Heuristics for the bi-objective path dissimilarity problem, IFORS 2014, Barcelona. July 2014.
- Martí, R., Scatter search and Path Relinking, Universidad de Granada 2012.

### C.3. Research projects

Title / Code / Funded by / Participants / Start – End / Budget / Project director / Number of researchers

- Red en Ciencia de Datos y Nuevas Tecnologías Aplicadas al Deporte y la Salud / 05-UPR-19 / Ministerio de Cultura y Deporte / 2019-2020 / 8.000 euros / Ángel Juan (UOC) / 25
- Optimización Inteligente en Grafos / PGC2018-095322-B-C21 (proyecto coordinado) / Ministerio de Ciencia, Innovación y Universidades / Universidad de Valencia, Universidad Rey Juan Carlos / 2019 – 2021 / 50.000 euros (Univ. Valencia) + 60.000 euros (Univ. RJC) / Rafael Martí / 11
- Red de Métodos Inteligentes en Optimización Heurística (Red de Excelencia) / TIN2017-90844-REDT / Ministerio de Economía, Industria y Competitividad / 10 universidades Españolas / 2018-2019 / 10.000 euros / Rafael Martí / 10 (representantes en su universidad de un grupo de investigación)
- Optimización Combinatoria II: Métodos y Estrategias / TIN2015-65460-C02 (proyecto coordinado) / Ministerio de Economía y Competitividad / Universidad de Valencia, Universidad Rey Juan Carlos, Colorado University / 2016 – 2018 / 45.000 euros (Univ. Valencia) + 50.000 euros (Univ. RJC) / Rafael Martí / 11
- Optimización Combinatoria / ACOMP2014-A241 / Generalitat Valenciana / Universidad de Valencia / 2014 / 1.000 euros / Rafael Martí / 4
- Modelos y Algoritmos para problemas de Optimización Combinatoria / PROMETEO-2013-049 / Generalitat Valenciana / Universidad de Valencia / 2013 / 19.245 euros / Angel Corberán / 8
- Optimización Combinatoria: Modelos y Aplicaciones / TIN2012-35632-C02 (proyecto coordinado) / Ministerio de Economía y Competitividad / Universidad de Valencia, Universidad Rey Juan Carlos, Colorado University, AT&T Research Laboratories / 2013 – 2015 / 21.000 euros (Univ. Valencia) + 36.000 euros (Univ. RJC) / Rafael Martí / 11

### C.4. Contracts, technological or transfer merits

Contracts: Title / Company / Period / IP

- Optimización del flujo del asfalto / Pavasal / 2019 – 2021 / Rafael Martí
- Software de optimización 2D\_CUT / Lamiplast / 2012 – 2013 / R. Álvarez, R. Martí.

Latest research stays:

- University of Colorado, Boulder (CO) USA / Every year from 2012 to 2018 a 2-months visit.
- University College of Dublin / Ireland / 2019 (3 weeks)
- Université de Bretagne-Sud / Lorient, Francia / 2012 (1 month).
- Universidad Tecnológica de Panamá / Ciudad de Panamá / 2017 to 2019 a 3 weeks visit / year
- Universidad Nacional Autónoma de México, Ciudad de México / 2015 and 2016 a 3-weeks visit
- University of Molde, Noruega / Every year from 2012 to 2019 a 1-week visit.