

Curriculum vitae of Salvatore Greco



Salvatore Greco was born in 1965. He received his degree from the Faculty of Economics of the University of Catania in 1988. He has been researcher of the Faculty of Economics of the University of Catania since 1994, associated professor since 1998 and full professor since 2001. He has been teaching Decision Theory, General Mathematics and Financial Mathematics. He was the coordinator of the PhD in Mathematics for Decisions in Economics and Finance at the University of Catania. Since 2013 Salvatore Greco has also a part time position at the Business School of Portsmouth University (UK). His research regards preference modeling and multiple criteria decision analysis with a specific attention to application of rough set theory. Together with Benedetto Matarazzo and Roman Slowinski, he proposed the Dominance-based Rough Set Approach (DRSA), which paved a new way of modeling preferences in Multiple Criteria Decision Making (MCDM), using logical “*if... then...*” decision rules induced from rough approximations of decision maker’s judgments. Together with Roman Slowinski and other colleagues, he also proposed Robust Ordinal Regression (ROR), which permits to take into account the whole set of value functions representing the preference information elicited by the decision maker. He was working, moreover, on application of non-additive integrals to MCDM proposing, together with Benedetto Matarazzo and Silvio Giove, a new powerful generalization of the Choquet integral: the level dependent Choquet integral. He also made contributions to several other subfields of MCDM, ranging from axiomatization of aggregation procedures to coupling some MCDM methodologies (DRSA, ROR) with evolutionary multiobjective optimization methodologies. He has also studied application of MCDA to composite indices applied in d sustainable development, wellbeing, innovation. He has applied MCDA to territorial and urban planning. He has been presenting many invited lectures at international conferences, and he has published many articles in major international scientific journals. For his research on the rough set approach to the multiple criteria decision analysis he received, together Benedetto Matarazzo and Roman Slowinski, the best paper award for the best theoretical article presented at the Athens Conference of Decision Science Institute in 1999 (<http://www.decisionsciences.org/recognition/hall.asp>).

At the 22nd International conference on MCDM held in Malaga June 17-22 2013 (<http://www.mcdm2013.decytec.ccee.uma.es/conference-organization/mcdm-society-awards.html>), he received the MCDM Gold Medal being “the highest honor that the International Society on Multiple Criteria Decision Making bestows upon a scholar who, over a distinguished career, has devoted much of his/her talent, time, and energy to advancing the field of MCDM, and who has markedly contributed to the theory, methodology, and practice of MCDM” (<http://www.mcdmsociety.org/intro.html>).

Salvatore Greco is co-author of the article

Greco, S., Matarazzo, B., Slowinski, R., Rough Sets Theory for Multicriteria Decision Analysis, European Journal of Operational Research, 129, no.1 (2001) 1-47,

which has been included in a special issue of European Journal of Operational Research, among the 20 most cited articles published by the journal in its first forty years of its history (<https://www.journals.elsevier.com/european-journal-of-operational-research/news/celebrate-40-years-european-journal-operational-research>).

He has been invited professor at Poznan University of Technology (Poland), Université Paris Dauphine and Ecole Central in Paris.

Together with José Figueira and Matthias Ehrgott, he edited the state-of-the-art collection of chapters on Multiple Criteria Decision Analysis, published by Springer in 2005, which became a reference book in the field, receiving more than 3000 citations according to Google Scholar:

J. Figueira, S. Greco, M. Ehrgott (eds.) (2005). Multiple Criteria Decision Analysis: State of the Art Surveys. New York: Springer.

The above book has been followed by another state-of-the-art collection presenting the most recent advances in Multiple Criteria Decision Analysis:

M. Ehrgott, J. Figueira, S. Greco (eds.). Trends in Multiple Criteria Decision Analysis. Springer, Berlin, 2010.

Scopus reports 245 publications of Salvatore Greco cited all together 9355 times and an h-index of 49. Google Scholar reports a total of 21291 citations with an h-index of 65.

Together with Benedetto Matarazzo he organized the fifth International Summer School on Multiple Criteria Decision Making (Acireale-Catania, 2000).

Since 2010, Salvatore Greco is one of the three coordinators of the EURO Working Group in Multiple Criteria Decision Aiding (<http://www.euro-online.org/web/ewg/1/ewg-mcda-multiple-criteria-decision-aiding> and <http://www.cs.put.poznan.pl/ewgmcda>). He has been member of the executive committee of International Society (<http://www.mcdmsociety.org/>) on Multiple Criteria Decision Making for the years 2006-2009, 2011-2013, 2016-2019. In the years 2014-2019 Salvatore Greco was member of the scientific committee of AMASES (Italian Society for mathematics applied to economics and social sciences - <http://www.amases.org/homepage-3/administrative-bodies>) and in the years 2017-2019 he served as vicepresident. Salvatore Greco is currently vicepresident and president Elected of the MCDM Section of INFORMS (<https://connect.informs.org/multiple-criteria-decision-making/>).

Salvatore Greco has organized three Dagstuhl seminars bringing together experts of Evolutionary Multiobjective Optimization and Multiple Criteria Decision Analysis: “Hybrid and Robust Approaches to Multiobjective Optimization” (18.01-23.01.2009, together with Kaisa Miettinen, Kalyanmoy Deb and Eckart Zitzler, <http://drops.dagstuhl.de/portals/index.php?semnr=09041>), “*Learning in Multiobjective Optimization 6*” (23-27.01.2012, together with Kaisa Miettinen, Joshua Knowles and Eckart Zitzler, <http://www.dagstuhl.de/12041>), “Understanding complexity in Multiobjective Optimization” (11.01-16.01.2015, together with Kathrin Klamroth, Joshua Knowles and Günter Rudolph <http://www.dagstuhl.de/de/programm/kalender/semhp/?semnr=15031>), . Salvatore Greco has been also the chair of the MCDM track of the 6th Evolutionary Multicriterion Optmization conference, EMO 2011, held in Ouro Preto, Brazil in 2011, <http://www.mat.ufmg.br/emo2011/>, and of the 7th Evolutionary Multicriterion Optmization

conference, EMO 2013, that has been held in Sheffield, March 19-22, 2013
<https://www.shef.ac.uk/emo2013>.

Salvatore Greco is a member of the editorial board of the following international journals related to OR:

- European Journal of Operational Research

<http://www.journals.elsevier.com/european-journal-of-operational-research/editorial-board/>

- Fuzzy Sets and Systems

<http://www.journals.elsevier.com/fuzzy-sets-and-systems/editorial-board/>

- Journal of Multicriteria Decision Analysis (area editor)

<http://www3.interscience.wiley.com/journal/5725/home?CRETRY=1&SRETRY=0>

- EURO Journal of Decision Processes

<http://www.springer.com/business+%26+management/operations+research/journal/40070/PSE?detailsPage=editorialBoard>

- International Journal of Multicriteria Decision Making (IJMCDM)

<http://www.inderscience.com/browse/index.php?journalCODE=ijmcdm>

- Transactions on Rough Sets

<http://www.springer.com/computer/lncs?SGWID=0-164-2-99627-0>

- Journal of Computational Optimization in Economics and Finance

https://www.novapublishers.com/catalog/product_info.php?products_id=6353

- International Journal of Strategic Decision Sciences (IJSDS)

<http://www.igi-global.com/journals/details.asp?id=8227>

Salvatore Greco has been the chair of the 14th International Conference on Information Processing and Management of Uncertainty in Knowledge-based Systems conference, IPMU 2012, held in Catania, July 9-13 2012 (<http://www.ipmu2012.unict.it/organization.html>). The conference had around 300 participants. He has also organized the 78th meeting of the EURO Working Group on Multiple Criteria Decision Aiding that was held in Catania, October 24-26 2013, (<http://www.mcda78.unict.it/MCDA78/>) and the 28th Conference of the European Chapter on Combinatorial Optimization (ECCO 2015) held in Catania on May 28-30, 2015 (<http://www.ecco2015.unict.it/ECCO2015/>).

Salvatore Greco has been in the scientific program of the following international conferences (2003-2009)

- Program committee of 1st INTERNATIONAL CONFERENCE ON ALGORITHMIC DECISION THEORY, Venice, October 20-23 2009 (events.math.unipd.it/adt2009/)

- Program committee of IFSA2009 / EUSFLAT09, Lisbon, July 20-24 2009 (ifsa2009.ist.utl.pt/)

- Program committee ISMIS 2009, September 14-19 2009, (<http://ismis09.vse.cz/>)

- Program Committee of MPREF 10: 5th Multidisciplinary Workshop on Advances in Preference Handling, August 16-17 Lisbon, ([/http://preferencehandling.lip6.fr/welcome.html](http://preferencehandling.lip6.fr/welcome.html))

- Program Committee of Rough Sets and Current Trends in Computing 2010 (RSCTC 2010), 28-30 June 2010, Warsaw : <http://www.rsctc2010.org/>)
- Program Committee of The Fifth International Conference on Rough Set and Knowledge Technology, October 15-17, 2010, Beijing (<http://rskt2010.bjtu.edu.cn/>)
- Program Committee of Simulated Evolution And Learning (SEAL-2010), 01-04 December 2010, Indian Institute of Technology Kanpur, India (www.iitk.ac.in/kangal/seal10/)
- Organizer of the stream of sessions in "Multiple criteria decision making" for EURO'2010 24th European Conference on Operational Research Lisbon, July 11 - 14, 2010 (<http://www.euro2010lisbon.org/>);
- Invited organizer together with Kalyanmoy Deb, Kaisa Miettinen and Eckart Zitzler of the seminar "Hybrid and Robust Approaches to Multiobjective Optimization" Dagstuhl (Germany) 18-23 January 2009 (<http://www.dagstuhl.de/de/programm/kalender/semhp/?semnr=09041>);
- Organizer of the stream of sessions in "Multiple criteria decision making, optimization & group decision " EURO2009 23rd European Conference on Operational Research Bonn, July 5 - 8, 2009 (<http://www.euro-2009.de/index.php>);
- Organizer of the stream of sessions in "Multiple criteria decision analysis" EURO2007 22nd European Conference on Operational Research, July 8-11 2007 (<http://euro2007.vse.cz/pdf/program.pdf>)
- Steering committee of Second International Conference, RSKT 2007 Toronto, Canada, May 14-16, 2007 (<http://www.springerlink.com/content/q1g790t37t60/front-matter.pdf>)
- Program committee Chairs of The Fifth International Conference on Rough Sets and Current Trends in Computing Kobe, 6-8 November 2006 (RSCTC 2006, <http://rsctc2006.med.shimane-u.ac.jp/>)
- Organizer of the stream "Multiple Criteria Decision Aiding" (together with José Figueira, Roman Slowinski) and "Preference Learning" (with Krzysztof Dembczynski and Roman Slowinski) in the EURO 2015 conference held in Glasgow, July 12-15, 2015 (<http://www.euro2015.org/>).
- Organizer of the stream "Preference Learning" (with Krzysztof Dembczynski and Roman Slowinski) in the INFORMS 2014 conference held in Barcelona, July 13-18, 2014 (<http://ifors2014.org/>).
- Organizer of the stream "Preference Learning" (with Krzysztof Dembczynski and Roman Slowinski) in the EURO 2013 conference held in Roma, July 1-4, 2013 (<http://euro2013.org/>).

Salvatore Greco has participated to two recent EU projects:

- PERCEIVE, being the acronym of "Perception and evaluation of Regional and Cohesion Policies by Europeans and Identification with the values of Europe" (<https://www.perceiveproject.eu/about-the-project/>)
- CLIC, Circular models Leveraging Investments in Cultural heritage adaptive reuse (<https://www.clicproject.eu/>)

Five publications of Salvatoe Greco

- 1) Greco S, Matarazzo B, Slowinski R. Rough sets theory for multicriteria decision analysis. *European Journal of Operational Research*. 2001 Feb 15;129(1):1-47.
- 2) Greco S, Mousseau V, Słowiński R. Ordinal regression revisited: multiple criteria ranking using a set of additive value functions. *European Journal of Operational Research*. 2008 Dec 1;191(2):416-36.

- 3) Greco S, Ishizaka A, Tasiou M, Torrisi G. On the methodological framework of composite indices: A review of the issues of weighting, aggregation, and robustness. *Social Indicators Research*. 2019 Jan 15;141(1):61-94.
- 4) Figueira JR, Greco S, Roy B. ELECTRE methods with interaction between criteria: An extension of the concordance index. *European Journal of Operational Research*. 2009 Dec 1;199(2):478-95.
- 5) Greco S, Ishizaka A, Matarazzo B, Torrisi G. Stochastic multi-attribute acceptability analysis (SMAA): an application to the ranking of Italian regions. *Regional Studies*. 2018 Apr 3;52(4):585-600.