
Valentina Ferretti, PhD

Fellow in Decision Science

London School of Economics

Email: V.Ferretti@lse.ac.uk

<http://it.linkedin.com/pub/valentina-ferretti/11/46b/a10/>



1. Summary bio

Dr. Valentina Ferretti is a Fellow in Decision Science in the Department of Management of the London School of Economics. She holds a BSc in Environmental Engineering (2006, Technical University of Turin, Italy), an MSc in Environmental Engineering (with distinction, 2007, Technical University of Turin and Institute of Technology of Stockholm, Sweden) and a PhD in Environment and Territory – Estimate and evaluation (2011, Technical University of Turin). She obtained the Italian teaching qualification in January 2015.

Dr. Ferretti's areas of expertise encompasses Decision Analysis, urban planning and environmental impact assessment procedures, and spatial multi-criteria evaluation. Her research, which focuses mainly on the study of methodologies, techniques and tools designed to support sustainability assessments of projects, plans and programs in the field of territorial transformation processes using Decision Analysis, has been published in journals such as the European Journal of Operational Research, Annals of Operational Research, Land Use Policy, Ecological Indicators, Journal of Multi-Criteria Decision Analysis, among others. One of her papers, proposing the integration of Multicriteria Analysis and Geographic Information Systems for locating undesirable facilities, was awarded the Wiley Practice Prize, awarded by the International Society on Multi-Criteria Decision Making in 2011. Her Ph.D. thesis received the Giorgio Leonardi's best Ph.D. thesis award in 2012 within the XXXIII Annual Scientific Conference of the Italian Association on Regional Sciences.

Dr. Ferretti holds research visiting positions in the Decision Sciences team at the London School of Economics (UK), at the University of Pittsburgh (US), and in the Faculty of Geo-Information Science and Earth Observation at the University of Twente, Enschede (The Netherlands). In addition, Dr. Ferretti has been Invited Assistant Professor in the LAMSADE CNRS Lab at the Université Paris Dauphine (France), and at the Ecole Centrale Paris.

By actively collaborating with different research institutes at both the international and the national levels, Dr. Ferretti has experience in applying the decision analytic tools in many fields related to environmental decision making, including transportation, land suitability analysis, forestry, and cultural heritage management. Finally, Dr. Ferretti has supervised dissertations of graduate students in this field, and is co-supervising Ph.D. students as well.

Research interests: Decision Analysis, urban planning and environmental impact assessment procedures, and spatial multi-criteria evaluation

2. Education

September 2015 - present	Fellow in Decision Science. Department of Management. London School of Economics and Political Science.
July 2011- September 2015	Post Doctoral research fellow. Department of Regional and Urban Studies and Planning of the Technical University of Turin ¹ , Italy.
January 2008- December 2010	PhD in Environment and Territory, Estimate and Evaluation. Technical University of Turin, Italy. Dissertation thesis title: “Multicriteria- Spatial Decision Support Systems (MC-SDSS): towards an integrated approach for sustainability assessments of territorial transformations.
September 2005- October 2007	Master of Science in Environmental Engineering. Technical University of Turin (Italy) and Royal Institute of Technology of Stockholm (Sweden) (final grade: 110 cum Laude/110). Dissertation thesis title: “The Analytic Network Process for environmental decision making: the case of Turin’s new railway station”
September 2002- March 2006	Bachelor of Science in Environmental Engineering. Technical University of Turin (Italy) (final grade: 108/110). Dissertation thesis title: “The consequences of Turin 2006 Winter Olympic Games: direct survey on the involved municipalities and maps of the territorial effects”

¹ The Technical University of Turin is the top Italian University for Engineering and Architectural studies.

3. Research visiting positions

University of Southern California, Los Angeles, USA.	Visiting researcher. April 2015 (scientific coordinators: Prof. Detlof von Winterfeldt and Dr. Gilberto Montibeller).
LAMSADE CNRS Laboratory (Laboratoire d'Analyse et Modélisation de Systemès pour l'Aide à la Decision, Université Paris Dauphine, France).	Visiting Assistant Professor (May 2014 – June 2014) (scientific coordinator: Prof. Alexis Tsoukiàs).
London School of Economics, London, UK	Invited researcher. From January 2013 onwards (scientific coordinator: Dr. Gilberto Montibeller).
University of Pittsburgh, KATZ School of Business, USA	Invited lecturer. From September 2013 to October 2013 (scientific coordinator: Professor Thomas Saaty).
Faculty of Geo-Information Science and Earth Observation - ITC, University of Twente, Enschede, The Netherlands.	Visiting scientist. Winner of two Short Term Scientific Missions within the COST Actions (From October 2011 to December 2014, scientific coordinator: Dr. Luc Boerboom).

4. Academic career

September 2015 - present	Fellow in Decision Science. Department of Management. London School of Economics and Political Science
July 2011- September 2015	Post Doctoral research fellow. Department of Regional and Urban Studies and Planning of the Technical University of Turin, Italy.
2008- Present	Collaborator. Higher Institute on Territorial Systems for Innovation (SiTI; http://www.siti.polito.it/index.php?l=ENG), Turin, Italy (scientific coordinator: Professor Giulio Mondini).
February 2010- February 2011	Junior consultant. SOGES S.p.A. “Think Tank” project between SOGES and the PhD School of the Technical University of Turin.

5. Scientific interests

My research activity developed through a 7 years period of time and focused on the study of methodologies, techniques and tools to support complex decision aiding processes in different fields (e.g. transportation, cultural heritage, environmental decision-making, ecology, to name a few). In particular, my research interests so far can be grouped into the following four macro-categories:

- (i) **Decision Aiding** (Multicriteria Decision Analysis).
- (ii) **Spatial Decision Support Systems** integrating Multicriteria Analysis and Geographic Information Systems.
- (iii) **Analytics for innovative policy design** (i.e. design and implementation of novel decision-supported processes, as well as the application of decision analysis to challenging societal problems).
- (iv) **Environmental Assessment Procedures and indicators systems** (e.g. Environmental Impact Assessment, Strategic Environmental Assessment, Assessment of plans and projects significantly affecting Natura 2000 sites, DPSIR (Determinants, Pressure, State, Impacts, Response) indicators framework, Political Performance Index).

6. Research – outputs²

6.1 Refereed journal papers

- 2016** Comino E., **Ferretti**, V. *Indicators-based spatial SWOT analysis for supporting the strategic planning and management of a national park with multiple exceptional values.* Ecological Indicators, **IF 3.230**, Vol. 60, pp. 1104-1117 [authors listed in alphabetical order].
- 2015** Bottero M., **Ferretti** V., Figueira J., Greco S., Roy B. *An extension of Electre III for dealing with a multiple criteria environmental problem with interaction effects between criteria.* European Journal of Operational Research, **IF 1.843**, Vol. 245, issue 3, pp. 837-950 [authors listed in alphabetical order].
- Lombardi P., **Ferretti** V. *New Spatial Urban Decision Support Systems for Sustainable Urban and Regional development.* Smart and Sustainable Built Environment, Vol. 4 Issue 1 pp. 45 – 66, <http://dx.doi.org/10.1108/SASBE-07-2014-0039>
- Angilella S., Bottero M., Corrente S., **Ferretti** V., Greco S., Lami I. *Non Additive Robust Ordinal Regression for urban and territorial planning: an application for siting an urban waste landfill.* Annals of Operational Research, **IF 1.103**, DOI: 10.1007/s10479-015-1787-7 [authors listed in alphabetical order].
- Ferretti** V., Bottero M., Mondini G. *A spatial decision support tool to study risks and opportunities of complex environmental systems.* Journal of Environmental Accounting and Management, 3(2), 197-213.
- 2014** **Ferretti** V., Comino E. *An integrated framework to assess complex cultural and natural heritage systems with Multi-Attribute Value Theory.* Journal of Cultural Heritage, **IF 1.111**, <http://dx.doi.org/10.1016/j.culher.2015.01.007>.
- Boerboom L., **Ferretti** V. *Actor Network Theory Perspective on a Forestry Decision Support System Design.* Scandinavian Journal of Forest Research, Vol. 29, pp. 84-95, **IF 1.065**, DOI: 10.1080/02827581.2014.946960 [authors listed in alphabetical order].
- Oppio A., Bottero M., **Ferretti** V., Fratesi U., Ponzini D., Pracchi V. *Giving space to Multicriteria Analysis for complex cultural heritage systems: the case of the castles in Valle D'Aosta Region, Italy.* Journal of Cultural Heritage, **IF 1.111**, doi:10.1016/j.culher.2015.03.003.
- Bottero M., **Ferretti** V., Mondini G., Pomarico S. *Enabling public participation in Strategic Environmental Assessment: an application of Multicriteria Analysis, Strategic Behavior and the Environment*, Vol. 4, pp. 99-130 [authors listed in alphabetical order].
- Bottero M., **Ferretti** V., Mondini G. (2014) *Towards smart and sustainable communities.* Advanced Engineering Forum, Vol. 11, pp. 131-135, doi:10.4028/www.scientific.net/AEF.11.131 [authors listed in alphabetical order].

² This section presents only international scientific publications. Dr. Ferretti is also author of many Italian publications that can be retrieved at the following website: <http://porto.polito.it/view/creators/Ferretti=3AValentina=3A021114=3A.html>

Ferretti V., Bottero M., Mondini G. (2014) *From indicators to composite indexes: an application of the Multi-Attribute Value Theory for assessing sustainability*. Advanced Engineering Forum, Vol. 11, pp. 536-541, doi:10.4028/www.scientific.net/AEF.11.536

Oppio A., Bottero M., **Ferretti V.** (2014) *Multicriteria spatial analysis for competitive cultural heritage in fringe areas: the case of Valle d'Aosta castles*. Advanced Engineering Forum, Vol. 11, pp.579-584, doi:10.4028/www.scientific.net/AEF.11.579.

Ferretti V., Bottero M., Mondini G. *Decision making and cultural heritage: an application of the Multi Attribute Value Theory for the reuse of historical buildings*, Journal of Cultural Heritage, Vol. 15, n. 6, pp. 644-655, **IF 1.111**, <http://dx.doi.org/10.1016/j.culher.2013.12.007>.

Bottero M., **Ferretti V.**, Pomarico S. *Assessing different possibilities for the reuse of an open-pit quarry using the Choquet integral*, Journal of Multi-Criteria Decision Analysis, ISSN: 1099-1360, Vol. 21, n.1-2, pp. 25-41, DOI: 10.1002/mcda.1509 [authors listed in alphabetical order].

- 2013** Bottero M., **Ferretti V.**, Mondini G. *From the environmental debt to the environmental loan: trends and future challenges for intergenerational discounting*. Environment, Development and Sustainability, Vol. 15, n. 6, pp. 1623–1644. DOI 10.1007/s10668-013-9453-1 [authors listed in alphabetical order].

Ferretti V., Pomarico S. *Ecological land suitability analysis through spatial indicators: an application of the Analytic Network Process technique and Ordered Weighted Average approach*, Ecological Indicators, **IF 3.230**, , Vol. 34, pp. 507-519, ISSN: 1470-160X.

Bottero M., **Ferretti V.**, Mondini G. *A Choquet integral - based approach for assessing the sustainability of a new waste incinerator*, International Journal of Multicriteria Decision Making, Vol.3, n. 2/3, pp. 157-177, ISSN: 2040-1078 [authors listed in alphabetical order].

- 2012** **Ferretti V.**, Pomarico S. *An integrated approach for studying the land suitability for ecological corridors through spatial multicriteria evaluations*, Environment, Development and Sustainability, Vol. 15, n. 3, pp. 859-885, ISSN: 1387-585X, DOI 10.1007/s10668-012-9400-6.

Bottero M., Comino E., Duriavig M., **Ferretti V.**, Pomarico S. *The application of a Multicriteria Spatial Decision Support System (MCSDSS) for the assessment of biodiversity conservation in the Province of Varese (Italy)*, Land Use Policy, **IF 3.134**, Vol. 30, pp. 730-738, ISSN: 0264-8377 [authors listed in alphabetical order].

Bottero M., **Ferretti V.**, Pomarico S. *Assessing the sustainability of alternative transport infrastructures*, International Journal of the Analytic Hierarchy Process, Vol. 4, Issue 1, pp. 61-77, ISSN: 1936-6744 [authors listed in alphabetical order].

Ferretti V., Pomarico S. *Integrated sustainability assessments: a spatial multicriteria evaluation for siting a waste incinerator plant in the Province of Torino (Italy)*, Environment, Development and Sustainability, Vol. 14, Issue 5, pp. 843-867, ISSN: 1387-

585X, DOI: 10.1007/s10668-012-9354-8.

- 2011 Ferretti V.** *A Multicriteria- Spatial Decision Support System (MC-SDSS) development for siting a landfill in the Province of Torino (Italy)*, Journal of Multi-Criteria Decision Analysis, Vol. 18, pp. 231-252, ISSN: 1099-1360, (**prize-winning paper for the Wiley Practice prize** at the International Conference on Multiple Criteria Decision Making, June 2011, Jyväskylä, Finland).

Bottero M., **Ferretti V.** *Assessing urban requalification scenarios by combining environmental indicators with the Analytic Network Process*, Journal of Applied Operational Research, Vol. 3, No. 2, pp. 75-90, ISSN: 1735-8523 [authors listed in alphabetical order].

Bottero M., **Ferretti V.** *An Analytic Network Process (ANP) based approach for location problems: the case of a new waste incinerator plant in the Province of Torino (Italy)*, Journal of Multi-Criteria Decision Analysis, Vol. 17, No. 3-4, pp. 63–84, DOI: 10.1002/mcda.456, ISSN: 1057-9214 [authors listed in alphabetical order].

- 2010 Bottero M., Ferretti V.** *Integrating the Analytic Network Process (ANP) and the Driving-forces, Pressures, State, Impacts, Responses (DPSIR) Model for the Sustainability Assessment of Territorial Transformations*, Management of Environmental Quality: An International Journal, Vol. 21, Issue 5, pp. 618-644, DOI 10.1108/14777831011067926, ISSN:1477-7835 [authors listed in alphabetical order].

6.2 Book chapters

- 2015 Geneletti D., Ferretti V.** *Multicriteria analysis for sustainability assessment: concepts and case studies*. In: Morrison-Saunders A., Pope J. and Bond A. (eds) Handbook of Sustainability Assessment, Cheltenham: Edward Elgar Publishing Ltd (in press).

- 2014 Lami I., Ferretti V.,** *Spatial decisional processes: evaluation tools and new challenges*, in: Melis G., Masala E. (eds.), InViTo - A European experience for brownfield redevelopment, Celid, Turin, pp. 57-71.

Bottero M., **Ferretti V.**, Mondini G., *Towards an integrated economic assessment of landscape*, in: Gambino R., Peano A. (eds.), Nature Policies and Landscape Policies. Towards an alliance, Springer, Vol. 18, pp. 371-380, ISBN: 978-3-319-05409-4 (Print) 978-3-319-05410-0 (Online) [authors listed in alphabetical order].

6.3 Conference proceedings

- 2015 Bottero M., Ferretti V., Mondini G.** *Calculating Composite Indicators for Sustainability*. In: O. Gervasi et al. (Eds.): ICCSA 2015, Part III, LNCS 9157, pp. 20–35. Springer International Publishing Switzerland (2015) DOI: 10.1007/978-3-319-21470-2_2

- 2014 Ferretti V., Bottero M., Mondini G.** *An Integrated Approach for Exploring Opportunities and Vulnerabilities of Complex Territorial Systems*. In: B. Murgante et al. (Eds.): ICCSA

2014, Part III, LNCS 8581, pp. 667-681. Springer International Publishing Switzerland (2014) doi:10.1007/978-3-319-09150-1_49 (**Best paper at the ICCSA 2014 Conference**).

Bottero M., **Ferretti V.**, Mondini G. Constructing multi-attribute value functions for sustainability assessment of urban projects. In: B. Murgante et al. (Eds.): ICCSA 2014, Part III, LNCS 8581, pp. 51-64. Springer International Publishing Switzerland (2014) doi:10.1007/978-3-319-09150-1_5 [authors listed in alphabetical order].

- 2011** **Ferretti V.**, *Integrating Multicriteria Analysis and Geographic Information Systems: a survey and classification of the literature*, Proceedings of the 74th meeting of the European working group on “Multiple Criteria Decision Aiding” (6-8 October 2011 Yverdon Les Bains, Switzerland).

Bottero M., **Ferretti V.**, Mondini G., *Towards an integration in sustainability assessment: the application of the Choquet integral for siting a waste incinerator*, Proceedings of the 74th meeting of the European working group on “Multiple Criteria Decision Aiding” (6-8 October 2011 Yverdon Les Bains, Switzerland) [authors listed in alphabetical order].

Ferretti V., Pomarico S., *Integrating Multicriteria Analysis and Geographic Information Systems for studying ecological corridors in the Piedmont Region*, Proceedings of the 74th meeting of the European working group on “Multiple Criteria Decision Aiding” (6-8 October 2011 Yverdon Les Bains, Switzerland).

Bottero M., **Ferretti V.**, Pomarico S., *An application of the Analytic Network Process for assessing the sustainability of different transport infrastructures*, Proceedings of the 11th International Symposium on the Analytic Hierarchy Process (15-18 June 2011, Sorrento, Italy) [authors listed in alphabetical order].

Ferretti V., Pomarico S., *The development of a Multicriteria- Spatial Decision Support System for siting a waste incinerator plant in the Province of Torino (Italy)*, Proceedings of the 73rd meeting of the European working group on “Multiple Criteria Decision Aiding” (14- 16 April 2011, Corte, France).

- 2010** Bottero M., **Ferretti V.**, Pomarico S., *Using the Analytic Network Process (ANP) for enhancing public participation in urban planning processes: the case of the Municipal Plan of Volta Mantovana (Italy)*, Proceedings of the 72nd meeting of the European working group on “Multiple Criteria Decision Aiding” (7 – 9 October 2010, Paris, France) [authors listed in alphabetical order].

Bottero M., **Ferretti V.**, *Exploring Benefits, Opportunities, Costs and Risks of territorial transformations: a combined Analytic Network Process (ANP) model and Driving forces- Pressures - State - Impacts - Responses (DPSIR) framework for Environmental Assessment*, Proceedings of the 2nd International Conference on Applied Operational Research (ICAOR) (25 – 27 August 2010, Turku, Finland), pp. 336- 347, ISSN: 2008-0050, ISBN: 978-952-12-2414-0 [authors listed in alphabetical order].

7. Research funding bids applied and received

- 2015** “Policy Innovation through New Design Analytics”, COST Action proposal (under review).
- 2011-2015** Technical University of Turin: Post Doctoral Fellowship (4 years, awarded in 2011).
- 2013** Short Term Scientific Mission proposal for COST Action FP1207 (ORCHESTRA) on *Forest policy and policy science: mapping policy concepts and theoretical perspectives* (Co- applicant together with Dr. Luc Boerboom); 1900 Euros; submitted to COST (European Cooperation in Science and Technology).
- Short Term Scientific Mission proposal for COST Action FP0804 (FORSYS) on *Actor Network Theory to understand collaborative Decision Support Systems in forest management practice* (Principal applicant); 1400 Euros; submitted to COST (European Cooperation in Science and Technology).
- 2011- 2013** “High level training program” for promising young PhDs of the Technical University of Turin (8.000 Euros of travel funds for 2 years).
- 2012** Short Term Scientific Mission proposal for COST Action FP0804 (FORSYS) on *Overcoming challenges of integrating DSS in strategic collaborative forestry scenario development* (Principal applicant); 2500 Euros; submitted to COST (European Cooperation in Science and Technology).
- 2008-2011** Technical University of Turin: Doctoral Scholarship (3 years) (awarded in 2011).

8. Current research project

International collaborations

Southern University of California (Los Angeles, USA) and **Loughborough University (UK)**. Project: Debiasing overconfidence (with Professor Detlof von Winterfeldt and Dr. Gilberto Montibeller) (2015).

Ecole Centrale Paris. Project: Preference learning (with Professor Vincent Mousseau, Ecole Centrale Paris, France) (since 2014).

CNRS LAMSADE (Laboratoire d'Analyse et Modélisation de Systèmes pour l'Aide à la Decision), Université Paris Dauphine. Project: Interactions within Multicriteria decision-making problems (with Professor Bernard Roy, LAMSADE, France) (since 2013).

Loughborough University (UK). Project: Spatial Multi-Criteria Risk Analysis (with Professor Gilberto Montibeller, London School of Economics, London, UK) (since 2013).

CNRS LAMSADE (Laboratoire d'Analyse et Modélisation de Systèmes pour l'Aide à la Decision), Université Paris Dauphine and **London School of Economics (LSE)**. Main proposer of the following COST Action proposal : Analytics for Innovative Policy Design (with Professor Alexis Tsoukiàs and Dr Gilberto Montibeller) (since 2013).

University of Twente, Faculty of Geo-Information Science and Earth Observation (The Netherlands). Project: Spatial Multicriteria Evaluation and ontology development (with Dr. Luc Boeboom) (since 2014).

CGS- Centre de Gestion Scientifique Ecole des Mines de Paris, France – Technical University of Turin. Project : innovative design of alternatives for decision making processes (with Dr. Akin Kazakci) (since 2014).

University of Trento (Italy) - Technical University of Turin. Project: sustainability assessments and Multicriteria Analysis (with Dr. Davide Geneletti) (since 2014).

IUAV University of Venice (Italy) - Technical University of Turin. Project: Value-focused design for public policies (with Dr. Giulia Lucertini) (since 2014).

9. Completed research projects

- 2013-2015 COST Action FP1207, ORCHESTRating forest-related policy analysis in Europe (ORCHESTRA) (scientific coordination: Dr. Luc Boerboom).
- 2012-2013 COST Action FP0804, Forest Management Decision Support Systems (FORSYS) (scientific coordination: Dr. Luc Boerboom).
- 2011-2012 ForeStClim, Transnational Forestry Management Strategies in Response to Regional Climate Change Impacts, INTERREG IVB North West Europe (NWE) Programme (<http://www.forestclim.eu/>) (scientific coordination: Dr. Luc Boerboom).
- 2008- present Assistance in consultancy work and participation in research projects at the Higher Institute on Territorial Systems for Innovation (SITI; <http://www.siti.polito.it/index.php?l=ENG>). Experimental applications and research concerning environmental assessment procedures and decision support tools in the field of sustainability assessment of urban and territorial transformation at different scales. The main research projects developed with real clients concerned the development of a risk map of the cultural heritage for Italy, the prioritization of different road projects in the Province of Turin through Multicriteria Analysis, the study of the carrying capacity of the Vesuvio Park in Italy, the ongoing structuring of the new Regional Transportation Plan for the Piedmont Region with innovative decision analysis techniques, to name a few. Moreover, I am currently helping to develop the sustainability plan of the Technical University Campus in Turin.

10. Professional activities

Journals – appointments

- **Section Editor** for News and Events for the International Journal of the Analytic Hierarchy Process (since November 2013).
- **Member of the Editorial board** of the following Journals (since 2013):
 - Environment and Natural Resources Research;
 - Journal of Sustainable Development;
 - Modern Applied Science.

Refereeing for scientific journals

- Forests (since 2015)
- Environmental Science and Technology (since 2015)
- European Journal of Operational Research (since 2014)
- Journal of Environmental Management (since 2014)
- OMEGA (since 2014)
- The International Journal of Management Science (since 2014)
- Operational Research: An International Journal (since 2014)
- International Transactions in Operational Research (since 2012)
- Ecological Indicators (since 2012)
- Journal of Multi-Criteria Decision Analysis (since 2012)
- Biomass and bioenergy (since 2012)
- Waste Management (since 2012)
- International Journal of the Analytic Hierarchy Process (since 2012)
- International Journal of Information Technology & Decision Making (since 2012)
- Journal of Applied Operational Research (since 2012)
- Geoinformatics & Geostatistics: An Overview (since 2012)
- Environment and Natural Resources Research (since 2012)
- Journal of Sustainable Development (since 2012)
- Modern Applied Science (since 2012)
- The Egyptian Journal of Remote Sensing and Space Sciences (since 2012)
- The Journal of Earth Science Informatics (since 2012)
- The Journal of Tropical Forest Science (since 2012)

Conferences – chairing sessions

Invited to organize sessions in the main Decision Analysis and Operational Research conferences:

- **INFORMS Conference** (organizer of one session in November 2015 (forthcoming) in the Multiple Criteria Decision Making cluster. Title of the session: Spatial Multi-Criteria Decision Analysis).
- **EURO Conference** – European Conference on Operation Research (organizer of three sessions in July 2015 (forthcoming) in the Multiple Criteria Decision Aiding stream. Title of the sessions:

Spatial Multicriteria Evaluation: insights and applications (i), Spatial Multicriteria Evaluation: insights and applications (ii) and MCDM Applications I).

- **MCDM Conference** – International Conference on Multiple Criteria Decision Making (organizer of one session in August 2015 (forthcoming). Title of the session: MCDM for smart and sustainable communities).
- **DIMACS/CCICADA Workshop on Urban Planning for Climate Events** September 2013: *chairman* in the morning session of the, Rutgers, The State University of New Jersey, Piscataway, USA.
- **International Conference on Multiple Criteria Decision Making** June 2013: *chairman* for the “Environmental Decision Making” session within the 22nd, 17-21 June 2013, Málaga (Spain).

11. Presentations in conferences

Invited paper presentations - USA

- 2015** - **INFORMS Annual Conference**, Debiasing Overconfidence, **forthcoming invited talk** under a session in the Decision Analysis stream, 1-4 November 2015, Philadelphia (USA).
- 2014** - **INFORMS Annual Conference**, Multi-Criteria Spatial Risk Analysis, **invited talk given** under a session in the Decision Analysis stream, 9-12 November 2014, San Francisco (USA).
- 2012** - **INFORMS Annual Conference Integrating Multicriteria Analysis and Geographic Information Systems: an application of Spatial ANP**, **invited talk**, 14-17 October 2012, Phoenix (Arizona, USA).

Invited paper presentations - EUROPE

- 2015**
- *An extension of Electre III for dealing with a multiple criteria environmental problem with interaction effects between criteria*, **invited talk** (together with Dr. Marta Bottero) at the 27th European Conference on Operational Research (EURO), 12-15 July 2015, Glasgow (UK).
 - *How to design innovatively public policies?* **invited talk** (together with Professor Alexis Tsoukiàs) at the 27th European Conference on Operational Research (EURO), 12-15 July 2015, Glasgow (UK).
 - *Multi-Criteria Spatial Risk Analysis*, **invited talk** (together with Dr Gilberto Montibeller) at the 27th European Conference on Operational Research (EURO), 12-15 July 2015, Glasgow (UK).
 - *Debiasing Overconfidence in Multi-Criteria Decision Analysis*, **invited talk** (together with Professor Detlof von Winterfeldt and Dr. Gilberto Montibeller) at the 23rd International Conference on Multiple Criteria Decision Making MCDM 2015, 2-7 August 2015, Hamburg.
 - *Multicriteria Decision Aiding for strategic assessment in urban processes*, **invited talk** (together with Dr. Marta Bottero) at the 23rd International Conference on Multiple Criteria Decision Making MCDM 2015, 2-7 August 2015, Hamburg.
- 2014**
- *Interview to Thomas Saaty*, **invited talk** given at the seminar “Multicriteria Analysis, Evaluation, Decision Processes”, 29-30 May 2014, Turin (Italy).
 - *MCDA real world case studies: abandoned railway lines and ranking farms to be recovered for touristic purposes*, **invited talk** given at the 12th Decision Deck Workshop, 30-31 October 2014, Brest (France).

2013

- *Multi-impact spatial risk analysis for resource allocation decisions*, **invited talk** given at the Dealing with Disasters International Conference (DwD 2013) and 4th Conference of the International Society for Integrated Disaster Risk Management (IDRiM 2013), 4-6 September 2013, Newcastle (**UK**).

- *Facilitated modeling for spatial decision processes*, **invited talk** given at the 26th EURO-INFORMS Conference on Operational Research, 1-4 July 2013, Rome (**Italy**).

- *Non Additive Robust Ordinal Regression for Urban and Territorial Planning: an Application for Siting an Urban Waste Landfill*, **invited talk** given at the 22nd International Conference on Multiple Criteria Decision Making, 17-21 June 2013, Málaga (**Spain**).

- *Sustainability Assessment and Spatial ANP: a Methodological Proposal for Studying the New Megacity Region Turin-Milan*, **invited talk** given at the 22nd International Conference on Multiple Criteria Decision Making, 17-21 June 2013, Málaga (**Spain**).

2012

- *An ANP- based approach for addressing sustainability in urban transformation projects*, **invited talk** given at the 25th European Conference on Operational Research, 8-11 July 2012, Vilnius (**Lithuania**).

- *La valutazione economica dei beni paesaggistici: una riflessione metodologica*, **invited talk** given at the seminar “Il paesaggio agrario italiano tra sviluppo e conservazione”, progetto “Promozione della Cultura Contadina” REQ, Istituto Nazionale di Economia Agraria –INEA, 11 May 2012, Rome (**Italy**).

Contributed presentations in workshops and conferences**2015**

- **INFORMS Annual Conference, Key Challenges And Meta-choices In Designing Spatial Multi-criteria Evaluations**, **forthcoming talk** under a session in the Multiple Criteria Decision Making cluster, 1-4 November 2015, Philadelphia (**USA**).

- *Calculating Composite Indicators for Sustainability*, talk given (together with Dr Marta Bottero) at the International Conference on Computational Science and its applications, 22- 25 June 2015, Banff (Canada).

- *Land suitability analysis for wetland location: a spatial multicriteria approach*, talk (together with Professor Elena Comino) at the 27th European Conference on Operational Research (EURO), 12-15 July 2015, Glasgow (**UK**).

- *A multi-stakeholders decision process to support urban planning strategies*, talk (together with Dr. Marta Bottero) at the 27th European Conference on Operational Research (EURO), 12-15 July 2015, Glasgow (**UK**).

- *Urban regeneration, industrial heritage and local communities: an application of the Social Multi-Criteria Evaluation*, talk given at the 23rd International Conference on Multiple Criteria Decision Making MCDM 2015, 2-7 August 2015, Hamburg

- *Learning the Parameters of a Ranking Model Using Multiple Reference Points: A Case Study Dealing with Large Datasets*, talk given together with Dr. Liu Jinyan at the 81st meeting of the European working group on Multicriteria Decision Aiding, 26-28 March 2015, Annecy, France.

- *Report on 2 STSMs presenting ontology development work*, talk given together with Dr. Luc Boerboom at the COST Action FP1207 (ORCHESTRA) Workshop on Forestry modeling for integrated policy, 9-11 March 2015, Cascais, Portugal.

2014

- *The Multiple Criteria Hierarchy Process approach for the valorization of historical buildings*, talk given at the seminar “Analisi Multicriteri, Valutazione, Processi decisionali”, 29-30 May 2014, Turin (Italy) (talk given together with Salvatore Corrente).

- *From indicators to composite indexes: an application of the Multi-Attribute Value Theory for assessing sustainability*, talk given together with Marta Bottero at the First International Symposium on New Metropolitan Perspectives, 6-8 May, 2014, Reggio Calabria (Italy).

- *Multiple Criteria Hierarchy Process applied to decision about the re-use of historical buildings*, talk given together with Marta Bottero at the 79th Meeting of the European Working Group «Multiple Criteria Decision Aiding», 3-5 April, 2014, Athens (Greece).

2013

- *An extension of Electre III for dealing with a multiple criteria environmental problem with interaction effects between criteria*, talk given with Marta Bottero at the 78th Meeting of the European Working Group «Multiple Criteria Decision Aiding», 24-26 October 2013, Catania (Italy).

- Participation to the DIMACS/CCICADA Workshop on Urban Planning for Climate Events, 23-24 September 2013, New York (USA).

- *Best Practices for Spatial Multicriteria Evaluation: a Critical Review*, talk given at the 22nd International Conference on Multiple Criteria Decision Making, 17-21 June 2013, Málaga (Spain).

- *Actor Network Theory Perspective on a Forestry Decision Support System Design*, talk given at the FORSYS 2013 Conference about Decision Support Systems for sustainable forest management, 24-26 April 2013, Umea (Sweden).

- *Decision making and cultural heritage: an application of the Multi Attribute Value Theory for the reuse of historical buildings*, talk given at the 77th

meeting of the European working group on Multicriteria Decision Aiding, 11-13 April 2013, Rouen (France).

2012

- *Multicriteria- Spatial Decision Support Systems: methodological background and case study application*, talk given at the seminar “Multidimensional Evaluation of projects: theory and practice” within the project “Multicriteria Decision Analysis for Cultural Heritage” of the Alta Scuola Politecnica (scientific coordinator: Dr. Alessandra Oppio), 2 May 2012, Turin (Italy).

- Participation to the workshop “Vulnerability Assessments”, Cross Project Exchange in SIC Adapt, 17 February 2012, Liverpool (UK).

2011

- *Towards an integration in sustainability assessment: the application of the Choquet integral for siting a waste incinerator*, talk given at the 74th meeting of the European working group on “Multiple Criteria Decision Aiding”, 6-8 October 2011, Yverdon Les Bains (Switzerland).

- *Application of the Conjoint Analysis to the “Porto Venere” UNESCO site*, talk given at the 1st International Workshop on Urbanization and Cultural Landscape, an Iranian- Italian Scientific Cooperation Programme, 4-16 July 2011, SiTI, Torino.

- *A Multicriteria- Spatial Decision Support System (MC-SDSS) development for siting a landfill in the Province of Torino (Italy)*, talk given at the 21st International Conference on Multiple Criteria Decision Making, 13–17 June 2011, Jyväskylä (Finland).

- *A Multicriteria- Spatial Decision Support System (MC-SDSS) development for siting a landfill in the Province of Torino (Italy)*, talk given at the seminar “Spatial Decision Support Systems: applications and perspectives”, 9 June 2011, SiTi, Torino.

2010

- *Exploring Benefits, Opportunities, Costs and Risks of territorial transformations: a combined Analytic Network Process (ANP) model and Driving forces- Pressures - State - Impacts - Responses (DPSIR) framework for Environmental Assessment*, talk given at the 2nd International Conference on Applied Operational Research (ICAOR), 25- 27 August 2010, Turku (Finland).

2008

- Participation to the international workshop “Transmitting Sustainable Cities”, 11-16 February 2008, Turin (Italy).

12. Teaching responsibilities

International teaching experience (USA)

- April 2014 **Invited lecturer.** “Integrating Multicriteria Analysis and Geographic Information Systems: An Application of Spatial ANP” for the MBA course “Decision Making for Leaders” (Course coordinator: Professor Enrique Mu, Carlow University, Pittsburgh, USA) (1 hour lecture).
- October 2013 **Invited lecturer.** “Integrating Multicriteria Analysis and Geographic Information Systems: an application of spatial ANP” for the course “Decision making in complex environments with the Analytic Network Process (ANP)” (Lecturer: Professor Thomas Saaty), University of Pittsburgh, KATZ Department of Business, USA (1 hour lecture).

International teaching experience (EUROPE)

- July 2015 **Lecturer and class teacher.** Course title: Summer School on Judgment and Decision Making for Management. **London School of Economics and Political Science, UK** (with Dr. Barbara Fasolo and Dr. Gilberto Montibeller).
- June 2015 **Teaching assistant.** Course title: **Executive Summer School on Strategic Decision Making. London School of Economics and Political Science, UK** (Lecturers: Dr. Barbara Fasolo and Dr. Gilberto Montibeller).
- January-February 2015 and November- December 2015 **Lecturer (responsible teacher).** Course title: Decision Modelling. **Ecole Centrale Paris, France** (48 hours course).
- October 2014 – April 2015 **Teaching assistant** for the e-learning course titled “Spatial Decision Support Systems” in the framework of the project “Achieving sustainable urban development” for UN Habitat in Rwanda (course coordinator: Dr. Luc Boerboom).
- July 2014 **Class teacher.** Course title: Summer School on Judgment and Decision Making for Management. **London School of Economics and Political Science, UK** (Lecturers: Dr. Barbara Fasolo and Dr. Gilberto Montibeller) (Overall evaluation: 83% Very good/good).
- June 2014 **Teaching assistant.** Course title: Executive Summer School on Strategic Decision Making. **London School of Economics and Political Science, UK** (Lecturers: Dr. Barbara Fasolo and Dr. Gilberto Montibeller).

7-8 February 2014

Teaching assistant. Course title: Decision Analysis in the legal context. **CMS Legal Services EEIG, DR Academy, Amsterdam**, the Netherlands (Lecturer: Dr. Gilberto Montibeller).

Italian teaching experience

Courses

September 2014- February 2015

Lecturer (responsible teacher). Course title: Theories and tools for real estate evaluation. Technical University of Turin (80 hours course)

Lectures and practical classes for Bachelor of Science and Master of Science courses

May 2015

Lecture “Multicriteria-Spatial Decision Support Systems” in the course “Architecture and urban economics. Real Estate evaluation” (responsible teacher: Prof. Patrizia Lombardi), Master of science in Architecture at the Technical University of Turin.

2014- present

Academic Tutor in the “Alta Scuola Politecnica (ASP)” – School for young talents- of the Technical University of Turin and the Technical University of Milan, (Italy) for the course “The adaptative reuse of historical buildings”.

2014

Teaching assistant for the course “Beijing brownfields. Urban regeneration and redevelopment of abandoned industrial sites in China”. Master of science in Architecture at the Technical University of Turin.

2012-2013

Teaching assistant for the course "MCDA for cultural heritage: Multi-criteria decision analysis for cultural heritage conservation and development", “Alta Scuola Politecnica (ASP)” – School for young talents- of the Technical University of Turin and the Technical University of Milan (Italy).

2012/2013- 2013/2014

Teaching assistant lecturing in the course “Theories and tools for real estate analysis”. Bachelor of science in Architecture, Technical University of Turin (Italy).

From 2007 to 2015

Teaching assistant lecturing in the course “Environmental Assessments”, Master of Science in Environmental Engineering, Technical University of Turin (Italy).

Lectures and practical classes for PhD courses

2012/2013

Lecture “Multicriteria- Spatial Decision Support Systems”

for the PhD course “Evaluation tools and techniques”, PhD course in Environment and Territory, Technical University of Turin (Italy).

From 2007 to 2013

Teaching assistant for the PhD course “Environmental Impact Assessment”, PhD course in Environment and Territory, Technical University of Turin (Italy).

2009

Lecture “Application of the Analytic Network Process (ANP) to two urban transformation projects” within the “Summer School on Real Estate Appraisal for P.h.D. Students – S.S.R.E.A.”, Bressanone (Italy).

Lectures and practical classes for Masters and Professional courses

2014

Lecture “Evaluation methods for supporting territorial decision making” for the Third International Workshop on Urbanization and Cultural Landscape "Executive Programme in Management of Complex Environments", II.TED International School in Heritage Management, Turin, September 10, 2014.

Lecture “Spatial Decision Support Systems” for the Master in Architectural Heritage and Landscape, Technical University of Turin (Italy) (Course coordinator: Prof. Carlo Tosco).

2010/2011, 2011/2012

Teacher for the course “Procedures of waste management” in the training course “Technician in environment, energy and security” (course coordinator: Dr. Mariangela Pes). Professional training agency En.F.A.P Piemonte (Italy).

2010 and 2012

Teacher for the 4th and 5th Course of Advanced Training “Management of the territory” (Course coordinator for the Turin training unit: Professor Giulio Mondini). Professional training agency Consorzio Promos Ricerche (Italy).

2009/ 2010, 2011/2012,
2012/2013, 2013/2014

Teacher for the course “Principles of Environmental Impact Assessment” in the training course “Technician in environment, energy and security” (Course coordinator: Dr. Mariangela Pes). Professional training agency En.F.A.P Piemonte (Italy).

2013/2014, 2014/2015

Teacher for the course “Environmental balances” in the training course “Technician in environment, energy and security” (Course coordinator: Dr. Mariangela Pes). Professional training agency En.F.A.P Piemonte (Italy).

Supervision of dissertations

- **Supervision of 8 BSc and 1 MSc** in Environmental Engineering Dissertations (Technical University of Turin, Italy). Currently, I am supervising 2 master dissertations, one at Ecole Centrale and one at Turin.
- **Co-supervision PhD students: 1 PhD student** in Environment and Territory – decision analysis (Technical University of Turin, Italy) and two PhD students in Cultural Heritage management, one jointly with Kent University and one jointly with Sorbonne University in France.

13. Awards and appointments

- January 2015 – January 2021: **Italian teaching qualification**
- July 2014: **best paper award** for the article titled “An integrated approach for exploring opportunities and risk of complex territorial systems” (authors: Valentina Ferretti, Marta Bottero and Giulio Mondini) that has been presented at the ICCSA 2014 – International Conference on Computational Science and its Applications, Guimaraes (Portugal), 30 June – 3 July 2014.
- 2012-present: **“Leading JMCDA Article”** acknowledged to the paper titled “An analytic network process-based approach for location problems: the case of a new waste incinerator plant in the Province of Torino (Italy)” (authors: Marta Bottero and Valentina Ferretti) published in the Journal of Multi-criteria Decision Analysis.
- September 2012: **Best Ph.D. thesis award** (Giorgio Leonardi’s prize within the XXXIII Annual Scientific Conference of the Italian Association on Regional Sciences - AISRe, 13-15 September 2012, Rome, Italy). Title of the thesis: Multicriteria – Spatial Decision Support Systems (MC-SDSS): un approccio integrato per le valutazioni strategiche degli interventi di trasformazione territoriale.
- June 2011: **Wiley Practice Prize for the best paper** presented at the 21st International Conference on Multiple Criteria Decision Making (13–17 June 2011, Jyväskylä, Finland). Title of the paper: A Multicriteria- Spatial Decision Support System (MC-SDSS) development for siting a landfill in the Province of Torino (Italy).
- June 2014: awarded with a certificate of **Reviewing Excellence** from the Journal “Ecological Indicators”.
- May 2014: **Honorary reviewer** for the Journal of Contemporary Management.
- 2011- 2013 **winner of the selection** for the participation in the “High level international training for problem solving and project management” project of the Technical University of Turin (BAF, <http://dottorato.polito.it/BAF.html>) (scientific coordinator: Professor Mario Calderini).
- 2010-2011 **winner of the competition** for PhD Students enrolled at the Doctoral School of the Technical University of Turin for participating in the “Think Tank” project between SOGES S.p.A. and the PhD School of the Technical University of Turin.

14. Memberships

- American INFORMS Society (since 2012)
- EURO Working Group on MCDA (since 2012)
- International Society on Multiple Criteria Decision Making (MCDM), <http://www.mcdmsociety.org/> (since 2011)
- Forest DSS Community of Practice, <http://forestdss.org/drupal/> (since 2013)

15. Languages other than English

- Italian (mother tongue)
- French (Listening: A1*³, Reading: A1, Speaking: A1, Writing: A1)
- Swedish (Listening: A1, Reading: A1, Speaking: A1, Writing: A1)

³ Common European Framework of Reference for Languages