

# CURRICULUM VITAE ET STUDIORUM

Antonio Violi

## PERSONAL DATA

- Born in Reggio Calabria, 23 August 1974
  - Living in Reggio Calabria (RC)
  - Married, a daughter
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## WORKING EXPERIENCE

- Dec 2018 –  
Assistant Professor in s.s.d. SECS-S/06 (MATHEMATICAL METHODS OF ECONOMY AND ACTUARIAL AND FINANCIAL SCIENCES) at Department of Law, Economics and Quantitative Methods of University of Sannio at Benevento. Member of the Quality Assurance group for the course of Business Economics.
- Feb 2018 -  
Teacher of the course of Data Science, within the degree course in Economics, at Mediterranean University of Reggio Calabria.
- Oct. 2018 – Apr 2019  
Consultant of WESMART s.r.l. for R&D project “HEARTNETICS”: design and implementation of machine learning models.
- Nov. 2017 – Dec. 2018  
Project Manager at INNOVA s.r.l.: project management, design of decision support models and methods.
- Aprile 2017 – marzo 2019  
Project Manager at ITACA s.r.l. within the R&D project “SMARTCAL - Knowledge Discovery and Value Proposition for Smart Tourism”: design of decision support models for tourist tour planning.
- Sept. 2013 – Sept. 2018  
Assistant Professor in s.s.d. MAT/09 (Operations Research) at Department of Mechanical, Energy and Management Engineering, University of Calabria.
- May - Jul 2016  
Teacher of the course “Financial Management of a project”, organized by Associazione GOODWILL.
- Jan. – Nov. 2015  
Consultant of WESMART s.r.l. within the R&D project “TOC TOC – Trasporti Orientati al Cittadino”: design and implementation of decision support methods for multimodal travel planning.

- Nov. 2012 – Jan. 2014  
Consultant of TEBAID within the professional training course HEALTHSOALearning: design and management of teaching activities, financial reporting.
- Jul. 2010 – Jun. 2013  
Research fellow in s.s.d. MAT/09 (Operations Research) at Department of Electronics, Informatics and Systems, University of Calabria.
- May 2012 – May 2013  
Consultant of CALPARK s.c.p.a. within the R&D project PON 2010 “eJRM – electronic Justice Relationship Management”: design of decision support models for e-Justice.
- Jul 2010 – Mar 2012  
Consultant of Department of Electronics, Informatics and Systems, University of Calabria for management of R&D projects.
- Jul. 2009 – Jun. 2010  
Research fellow in s.s.d. MAT/09 (Operations Research) at Department of Electronics, Informatics and Systems, University of Calabria.
- Feb. 2009 – Jun. 2009  
Consultant of Centro di Competenza ICT-SUD: design and development of decision support systems for financial applications.
- Jun. 2006 – Feb. 2009  
Senio Engineer at CESIC - NEC Italy: design and implementation of decision support systems for investment planning under uncertainty.
- Aug. 2002 – May 2004  
CONFOR AGE: sw analyst and developer
- Jun. 2001 – Jul. 2002  
Trade Information Network: sw analyst and developer

## EDUCATION

- Ph.D. in “Operations Research” at Department of Electronics, Informatics and Systems, University of Calabria (2002-2006).
- M.D. in Management Engineering at University of Calabria (2001)
- Advanced Course attended
  - Apr. 2007  
“Stochastic Programming School”, at University of Bergamo.
  - Mar. 2005  
“Workshop on High-Performance and GRID Computing”, at High-Performance Computing Centre of University of Calabria.
  - Oct. 2004 – Dec. 2004  
“Parallel Computing”, at High-Performance Computing Centre of University of Calabria.

- Jun. 2004  
“Large-Scale Nonlinear Optimization”, at Scuola Internazionale di Matematica “G. Stampacchia”, Erice.
  - Jun. 2004  
“Numerical Methods for Unconstrained Optimization”, at University of Calabria.
  - Apr. 2000  
“Il mercato dell’Energia Elettrica”, at Politecnico of Milan.
  - May 1999  
“Financial systems analysis”, at University of Calabria.
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## QUALIFICATIONS

- Associate Professor in s.s.d. SECS-S/06 “MATHEMATICAL METHODS OF ECONOMY AND ACTUARIAL AND FINANCIAL SCIENCES”, 2017.
  - Associate Professor in s.s.d. MAT/09 “Operations Research”, 2018.
  - ISIPM certification in Project Management, 2011.
  - Certification as Engineer, 2001.
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## TEACHING ACTIVITY

- A.A. 2018-2019 –
  - Financial Mathematics, Department of Law, Economics and Quantitative Methods, University of Sannio at Benevento.
- A.A. 2017-2018 -
  - Data Science, Mediterranean University of Reggio Calabria.
- A.A. 2015-2016 – A.A. 2017-2018
  - Logistics, University of Calabria.
- A.A. 2016-2017
  - Design for Business Development, University of Calabria.
- A.A. 2013-2014 – A.A. 2014-2015
  - Integrative teaching activity within the course of Logistics, University of Calabria.
- A.A. 2001-2002 – A.A. 2009-2010
  - Integrative teaching activity within the course of Financial Optimization, University of Calabria.
- A.A. 2008-2009
  - Integrative teaching activity within the course of Statistics, University of Calabria.
- A.A. 2002-2003 – A.A. 2006-2007
  - Integrative teaching activity within the course of Optimization, University of Calabria.

- A.A. 2004-2005
  - Optimization, University of Calabria.
- A.A. 2002-2003
  - Integrative teaching activity within the course of Operations Research II, University of Calabria.

### Attività svolte nell'ambito di Progetti Nazionali ed Internazionali

- **Delegate** of the Rector for the management and coordination of the research unit of the University of Calabria of the following projects:
  - **CAST** “Calabria Sostenibile e Turismo”, R&D fund POR Calabria 2014/2020.
  - **SMART MACINGO**, R&D fund POR Calabria 2014/2020.
  - **ASSD** “Acceleratori semantici social-driven per la generazione di itinerari turistici glocal”, R&D fund POR Calabria 2014/2020.
  - PON01\_01286 **eJRM** “electronic Justice Relationship Management” - PON R&C 2007/2013.
  - PON01\_00990 **Automotive Enterprise 2.0** - PON R&C 2007/2013.
  - PON01\_00878 **DIRECT FOOD** “Valorizzazione delle Produzioni agroalimentari dei Sistemi Locali e di quelli tradizionali del Made in Italy attraverso la gestione integrata delle filiere e di canali innovativi produttore-consumatore” - PON R&C 2007/2013.
  - PIA **SIRENE** “Situazione Rete e Nuovo Equilibrio”, POR Calabria 2007/2013.
  - PIA **EPICA** “Enterprise Content Management”, POR Calabria 2007/2013.
  - **AGROMATER-LAB** – WP3 “Metodi quantitativi per la logistica distributiva in ambito agroalimentare” - APQ Calabria.
- **Member** of the research team of University of Calabria in the following R&D projects:
  - **TESI** “Sistemi informatici integrati a supporto del *bench-marking* di progetti ed interventi ad innovazione tecnologica in campo agro-alimentare”, ART.10 L.46/92
  - PRIN “**Metodi e Tecniche per l’Ottimizzazione di Portafoglio e per la Valutazione di Strumenti Finanziari**”, MIUR, 2002 – 2004.
  - PIA “**Green Box**”, POR Calabria 2000/2016.
  - **BEINGRID**, Business Experiment BE04 “GRID Financier: on grid simulations for financial portfolio management problem solving”.
  - **SDOME** “Sistemi di supporto alle Decisioni per gli Operatori del Mercato Elettrico”, MISE.
  - PON01\_02934 **HEALTHSOAF** “Framework di Architettura di Servizi per la Sanità” – PON R&C 2007/2013
  - **NEUROSTAR** “NEUROscienze e Sistemi, Tecnologie e procedure Avanzate per diagnosi/prognosi precoci e Recupero/contenimento del danno funzionale in soggetti con gravi disabilità da patologie acquisite del sistema nervoso centrale” - PON R&C 2007/2013.
  - **TeSS** – Tecnologie a Supporto della Sanità, MIUR (Avviso n. 84/Ric. Del 02/03/2012)
  - **SMOB** – Social MOBility, MIUR (Avviso n. 84/Ric. Del 02/03/2012)
  - PON03PE\_00050\_2 **DOMUS Energia** “Sistemi Domotici per il Servizio di Brokeraggio Energetico Cooperativo” - PON R&C 2007/2013.
  - **POWER CLOUD** “Tecnologie e algoritmi nell’ambito dell’attuale quadro regolatorio del mercato elettrico verso un new deal per i consumatori e i piccoli produttori di energia da fonti rinnovabili”, MISE PON HORIZON 2020, D.M. 01/06/2016.
  - **ALCMEONE** “Pianificazione e gestione clinica integrata del paziente cefalalgico: innovativa architettura organizzativa e avanzata piattaforma tecnologica di servizi a supporto dell’integrazione dei percorsi di assistenza e cura e della centralità del paziente”, MISE PON HORIZON 2020, D.M. 01/06/2016.

## RESEARCH ACTIVITY

Research interests mainly concern:

- the analysis of theoretical properties and the development of solution methodologies for different classes of stochastic programming problems;
- the definition and development of decision support systems for portfolio management problems, implemented on conventional and parallel calculation systems;
- the definition of optimization models for the mathematical representation of real problems for electricity market operators;
- the definition of models and methods for logistics;
- the definition of optimization models for real problems in the context of communication networks.

### ***Stochastic Programming methods***

From a methodological point of view, the research activity turned to the study of the properties of two-stage non-linear stochastic programming problems with mixed-integer variables, which constitute the boundary with regard to resolution complexity, but at the same time, they are widely applicable in different real contexts. In [A.3] an Interior Point solution method has been defined based on a Branch and Bound approach for the version of the problem with linear constraints and convex objective function. The method uses an internal point method based on the Birge and Qi factorization formula to solve single subproblems.

Also in this area, the issue concerning the generation of significant scenarios for multi-stage problems was examined in depth. In [A.7] an efficient forecasting methodology has been proposed based on a mixed simulation / optimization approach, designed to exploit the potential offered by high performance computing.

Finally, the research activity in this context was also addressed to models with probabilistic constraints, whose characteristics suggest their application in different critical decision-making contexts, but are still difficult to deal with from the point of view of the resolution process. In [A.12] a model with joint probabilistic constraints for the problem of Capital Rationing has been proposed, and a heuristic procedure has been defined which has proved to be very efficient even for large problems.

### ***Decision support systems for Portfolio Management problems***

The research activity carried out in this area concerned the definition and development of support systems for efficient and effective decisions for planning problems of investments attributable to the class of Asset-Liability Management problems. This issue has several elements of complexity, from the uncertainty and dynamism that characterize modern financial markets to the presence of constraints of various kinds (regulatory, strategic and operational) that limit the decision-making process. In this context, multistage stochastic programming has proved to be a very effective modelling and methodological tool, since it allows to significantly represent the sources of uncertainty using "scenario trees" and to include crucial aspects in the evaluation, such as the possibility of rebalancing the allocation, the presence of transaction costs and risk management. However, there is a drawback linked to the adoption of this framework, mainly due to the dimension that real instances of decision problems with this type of formulation take.

In this context, the research was oriented both to the definition of specific decision models for ALM problems, which are more effective than other more or less empirical approaches used in real operational contexts, and to the design and development of software systems that implement efficiently the models and methodologies specifically defined [A.10, A.15, A.32]. Particular attention was then devoted to the management of credit risk, in addition to the more common market risk, in the context of investment planning problems. The assessment of the possibility of counterparty default, together with the possibility of changes in creditworthiness, introduces a further level of complexity that requires the definition of ad-hoc methodological tools. In [A.13, A.33] some decision approaches based on stochastic multistage programming have been defined, which include jump-to-default models of evolution and decision models able of representing all sources of risk and defining solutions effective allocation dynamics.

Another topic of interest is the representation of complex structures regarding transaction costs, whose use within investment planning models is a critical aspect for the definition of effective and realistic strategies [A.18]. Recently the problem of index tracking has been addressed, for which a multistage stochastic programming model based on the rolling horizon approach has been proposed [A.29].

Still in the planning sphere, specific decision models have been defined for problems of Capital Budgeting and Capital Rationing, which are characterized by different traits in common with the problems of ALM [A.12, A.14]. The basic idea continues to be that of defining planning, in this case of industrial investments, that are capable of managing the various possible evolutions of the operating context, in compliance with specific risk exposure requirements

### ***Optimization models for electricity market problems***

The recent liberalization of the electricity market has posed a series of significant problems previously unknown to operators. In this context, a first significant contribution [A.1] concerned the study of the problem relating to the organization and efficient management of energy purchase and sale transactions in the context of the Energy Exchange. In particular, a non-linear mixed integer optimization model has been developed that allows the price and quantity of energy to be exchanged to be determined, with the aim of maximizing the overall volume of transactions, taking into account regulatory, technological and managerial constraints.

The uncertainty that characterizes the operation of the Stock Exchange cannot be neglected in the definition of support models for the main market players. As far as energy producers are concerned, a model was defined for the evaluation of bilateral contracts based on the stochastic two-stage programming framework [A.2], capable of including in the assessment the risks associated with subsequent operations on the Stock Exchange. Still with regard to energy producers, stochastic multistage programming models were defined and validated for the definition of offers in multi-auction markets and production planning [A.6, A.20, A.34], on basis of both technological constraints and operators' risk attitude.

With regard to the large consumers of electricity, subjects who have the possibility of operating directly on the energy exchange, a rolling-horizon decision-making approach has been defined for the definition of the optimal short-term supply plan [A.11 ], starting from the availability of bilateral contracts from which to purchase energy and the possibility of trading on the stock exchange.

As far as the distribution companies are concerned, a model based on two-stage stochastic programming has been defined with recourse for the definition of flexible tariff structures [A.4], capable of involving the end user in the costs and possible savings associated with it. to the efficient supply of energy through the various channels available. Transversally to the contributions proposed for the various market operators, a method for forecasting the short-term energy exchange price [A.22] has been defined, a functional activity for each decision process characterized by uncertainty. Finally, the research activity is also directed towards the development of planning models at different levels for the aggregation of users of various kinds (smart or virtual grid) that have the possibility of sharing energy resources (renewable plants, systems of accumulation, etc.) and to interface with the market with greater bargaining power, given the amount of energy they can exchange. In this context, contributions were proposed for the selection of bilateral contracts and long-term procurement in various operating conditions [A.16, A.23, A.24], a model for defining intra-grid tariffs both for consumption and for the production of electricity [A.25] and a model for supply planning and short-term unit commitment, guaranteeing the integrated and efficient management of the resources available at the aggregation level [A.17 ]. Recently the problem of planning of schedulable loads and the management of accumulation systems for prosumers has also been addressed [A.30, A.31].

### ***Models and methods for logistics***

In this field of application, the activities have been addressed to three specific themes. Firstly, the coordinated management of production, storage and distribution (Production-Inventory-Routing) of a perishable product by a distributor [A.35], through the definition of a stochastic multistage programming model and a ad hoc procedure for generating admissible routes dynamically.

Another topic of interest concerned the definition of personalized tourist itineraries capable of taking into account, in addition to the classic operational constraints (eg time-windows), also of the score associated with each point of interest [A.27]. Finally, a contribution was proposed for the problem of

incremental routing for carriers within an e-marketplace of transport services, defined on the basis of a real decision-making process faced by leading companies in the sector [A.19, A.26].

### **Optimization models for sensor networks problems**

A recent collaboration has given rise to a new line of research linked to problems of flow regulation and sensor positioning in telecommunications networks. In particular, in [A.8] an adaptive model has been proposed for the optimal management of the flow through wireless networks. The model foresees the self-regulation of the individual sensors on the basis of the current flow level and the buffer filling level, with the aim of maximizing the overall throughput.

Another topic of interest is the positioning of sensors in a network crossed by bidirectional flows. In [A.5] a model has been defined for the positioning of sensors in the case of a bidirectional flow capable of guaranteeing better performance in terms of lifetime compared to other strategies such as, for example, the equidistance along the flow direction. In [A.9, A.21], placement models have been defined that take into account both the energy expended by the sensors for the displacement up to the final position, and different performance criteria (residual energy, lifetime of the flow, etc.). Alongside this, heuristic strategies have been defined, which have proved more effective than other strategies used in operational contexts and not too distant in terms of performance from the exact models.

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## **Scientific Papers**

### **Papers on International Journals**

- A.1. P. Beraldi, D. Conforti, C. Triki, A. Violi, "Constrained Auction Clearing in the Italian Electricity Market", **4OR**, Vol. 2, pp. 35-51, 2004.
- A.2. P. Beraldi, D. Conforti, A. Violi, "A Two-Stage Stochastic Programming Model for Electric Energy Producers", **Computers and Operations Research**, Vol. 35 (10), pp. 3360-3370, 2008.
- A.3. P. Beraldi, D. Conforti, A. Violi, "SICOpt: a solution approach for Nonlinear Integer Stochastic Programming Problems", **Journal of Optimization Theory and Applications**, Vol. 143(1), pp. 17-36, 2009.
- A.4. C. Triki, A. Violi, "Dynamic Pricing of Electricity in retail markets", **4OR**, Vol. 7, pp. 21-36, 2009.
- A.5. E. Natalizio, V. Loscrì, A. Violi, F. Guerrero, "Energy Spaced Placement for Bidirectional Data Flows in Wireless Sensor Networks", **IEEE Communications Letters**, Vol. 13(1), pp. 22-24, 2009.
- A.6. R. Musmanno, N. Scordino, C. Triki, A. Violi, "A multistage formulation for GENCOs in a multi-auction electricity market", **IMA Journal of Management Mathematics**, Vol. 21(2), pp. 165-181, 2010.
- A.7. P. Beraldi, F. De Simone, A. Violi, "Generating Scenario Trees: A Parallel Integrated Simulation-Optimization Approach", **Journal of Computational and Applied Mathematics**, Vol. 233, pp. 2322-2331, 2010.
- A.8. E. Natalizio, P. Pace, F. Guerrero, A. Violi, "A Reactive and Dependable Transport Protocol for wireless mesh networks", **Elsevier Journal of Parallel and Distributed Computing**, Vol. 70(5), pp. 431-442, 2010.
- A.9. F. Guerriero, A. Violi, E. Natalizio, V. Loscrì, C. Costanzo, "Modelling and solving optimal placement problems in wireless sensor networks", **Applied Mathematical Modeling**, Vol. 35(1), pp. 230-241, 2011.
- A.10. P. Beraldi, A. Violi, "A Decision Support System for Portfolio Optimization", **Decision Support Systems**, Vol. 51(3), pp. 549-561, 2011.
- A.11. P. Beraldi, N. Scordino, N. Sorrentino, A. Violi, "Short-term electricity procurement: A rolling horizon stochastic programming approach", **Applied Mathematical Modeling**, Vol. 35(8), pp. 3980-3990, 2011.
- A.12. P. Beraldi, M.E. Bruni, A. Violi, "Capital Rationing Problems under Uncertainty and Risk", **Computational Optimization and Applications**, Vol. 51(3), pp. 1375-1396, 2012.

- A.13. P. Beraldi, G. Consigli, F. De Simone, G. Iaquina, A. Violi, "Scenario-based corporate bond portfolio management", *IMA Journal of Management Mathematics*, Vol. 23(4), pp. 341-364, 2012.
- A.14. P. Beraldi, M. Costabile, I. Massabò, E. Russo, A. Violi, "A Multistage Stochastic Programming Approach for Capital Budgeting Problems under Uncertainty", *IMA Journal of Management Mathematics*, Vol. 24(1), pp. 89-110, 2013.
- A.15. P. Beraldi, I. Epicoco, A. Violi, "An Advanced System for Portfolio Optimization", *International Journal of Grid and Utility Computing*, Vol. 5(1), pp. 21-32, 2014.
- A.16. P. Beraldi, A. Violi, G. Carrozzino, M.E. Bruni, "A probabilistically constrained approach for the energy procurement problem under uncertainty", *Energies*, Vol. 10(12), 2179, 2017.
- A.17. P. Beraldi, A. Violi, G. Carrozzino, M.E. Bruni, "A Stochastic Programming approach for the optimal management of aggregated distributed energy resources", *Computers & Operations Research*, Vol. 96, pp. 200-212, 2018.
- A.18. A. Violi, P. Beraldi, M. Ferrara, C. Ciancio, B.A. Pansera "Dealing with complex transaction costs in portfolio management", *Annals of Operations Research*, 2019.
- A.19. P. Beraldi, A. De Maio, D. Laganà, A. Violi, "A pick-up and delivery problem for logistics e-marketplace services", *Optimization Letters*, 2019.

#### **International Conference Proceedings with revision process**

- A.20. D. Menniti, R. Musmanno, N. Scordino, N. Sorrentino, A. Violi, "Managing price risk while bidding in a multi market environment", *Proceedings della conferenza IEEE Power & Energy Society 2007*, doi: 10.1109/PES.2007.385968, 2007.
- A.21. V. Loscrì, E. Natalizio, C. Costanzo, F. Guerrero, A. Violi, "Optimization models for determining performance benchmarks in wireless sensor networks", *Proceedings della conferenza IARIA SENSORCOMM 2009*, pp. 333-338, 2009.
- A.22. D. Menniti, N. Scordino, N. Sorrentino, A. Violi, "Short-term forecasting of day-ahead electricity market price", *Proceedings della conferenza IEEE EEM 2010*, pp. 1-5, doi: 10.1109/EEM.2010.5558771, 2010.
- A.23. P. Beraldi, A. Violi, G. Carrozzino, M.E. Bruni, "The optimal energy procurement problem: a Stochastic Programming approach", *Springer Proceedings in Mathematics and Statistics ODS 2017*, Vol. 217, pp. 357-365, 2017.
- A.24. P. Beraldi, A. Violi, G. Carrozzino, M.E. Bruni, "The optimal electric energy procurement problem under reliability constraints", *Energy Procedia - Proceedings of 4th International Conference on Energy and Environment Research, ICEER 2017*, Vol. 136, pp. 283-289, 2017.
- A.25. A. Violi, P. Beraldi, M. Ferrara, G. Carrozzino, "The optimal tariff definition problem for a prosumers' aggregation", *New trends in emerging complex real life problems - Proceedings of ODS 2018*, AIRO Springer Series, pp. 483-492, 2018.
- A.26. A. De Maio, A. Violi, D. Laganà, P. Beraldi, "A freight adviser for a delivery logistics service e-marketplace", *New trends in emerging complex real life problems - Proceedings of ODS 2018*, AIRO Springer Series, pp. 219-226, 2018.
- A.27. C. Ciancio, A. De Maio, D. Laganà, F. Santoro, A. Violi, "A genetic algorithm framework for the orienteering problem with time windows", *New trends in emerging complex real life problems - Proceedings of ODS 2018*, AIRO Springer Series, pp. 179-188, 2018.
- A.28. M.E. Bruni, D.N. Guy, P. Beraldi, A. Violi, "The Mahalanobis distance for feature selection using genetic algorithms: an application to BCI", *New trends in emerging complex real life problems - Proceedings of ODS 2018*, AIRO Springer Series, pp. 73-81, 2018.
- A.29. P. Beraldi, A. Violi, M.E. Bruni, G. Carrozzino, "Dynamic index tracking via Stochastic Programming", *Proceedings of the 8th International Conference on Operations Research and Enterprise Systems ICORES*, pp. 443-450, 2019.
- A.30. P. Beraldi, A. Violi, G. Carrozzino, "The optimal management of the prosumer's resources via stochastic programming", in press on *Energy Reports - Proceedings of ICEER 2019, 6th International Conference on Energy and Environment Research*, 2019.
- A.31. P. Beraldi, A. Violi, M.E. Bruni, G. Carrozzino, "Dealing with the stochastic home energy management problem", in press on *Proceedings of ODS 2019*, 2019.



## Book chapters with revision process

- A.32. P. Beraldi, L. Grandinetti, I. Epicoco, A. Violi, "Grid Computing for Financial Applications", in W. Gentsch, L. Grandinetti, G. Joubert (eds.), *Advances in Parallel Computing, High Speed and Large Scale Scientific Computing*, vol. 18, pp. 380-395, ISBN 978-1-60750-073-5, IOS Press 2009.
- A.33. P. Beraldi, G. Consigli, F. De Simone, G. Iaquina, A. Violi, "Hedging market and credit risk in corporate bond portfolios", in M. I. Bertocchi, G. Consigli, M.A.H. Dempster (eds.), *Stochastic Optimization Methods In Finance And Energy*, International Series in Operations Research and Management Science, vol. 163, pp. 73-98, ISBN 978-1-4419-9585-8, SPRINGER 2011.
- A.34. D. Menniti, N. Scordino, N. Sorrentino, A. Violi, "Comparison among different sale-bidding strategies to hedge against risk in a multi-market environment", in I. Dritsas (ed.), *Stochastic Optimization – Seeing the Optimal for the Uncertain*, ISBN 978-953-307-829-8, INTECH 2011.

## Papers submitted to international journals

- A.35. D. Laganà, R. Musmanno, A. Violi, R. Paradiso, "An integrated approach for the production-inventory-routing of agri-food products" in revision on *Soft Computing*, 2019.

## Ph.D. thesis

- A. Violi, "Stochastic Integer Programs: a new solution approach with application to the liberalized electrical power market", 2005.

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## Conferences

- LINUX WORLD 2004, Milan (Italy). Talk on "Decision Support Systems for financial risk management". 19-25/09/2004
- "New frontiers of high performance computing", Cetraro (Italy), 2005. Talk on "A Branch&Bound Interior Point approach for stochastic integer programming problems". 10-24 July 2005.
- XXXVI Annual Conference of the Italian Operations Research Society - AIRO 2005, Camerino (Italy). Talk on "Limited Recourse Stochastic Programs for the Dynamic Pricing of Electricity in Retail Markets". 06-09 Sep. 2005.
- XXXVII Annual Conference of the Italian Operations Research Society - AIRO 2006, Cesena (Italy). Talk on "A two-stage stochastic programming model for electric energy producers". 12-15 Sep. 2006
- XXXIX Annual Conference of the Italian Operations Research Society - AIRO 2008, Ischia (Italy). Talks on "A multistage formulation for GENCOs in a multi-auction electricity market", "A decision support system for risk management". 08-11 Sep. 2008.
- XL Annual Conference of the Italian Operations Research Society - AIRO 2009, Siena (Italy). Talk on "A Simultaneous market and credit risk control on a generic corporate bond portfolio during the credit crisis". 08-11 Sep. 2009.
- XLVI Annual Conference of the Italian Operations Research Society - AIRO 2016, Trieste (Italy). Talks on "CORE: a web platform for infomobility systems and sustainable transport services", "A stochastic approach for production inventory routing problem under uncertainty for agri-food products", "A rolling horizon stochastic programming approach for the short term electricity procurement in smart grids". Chairman of session "Optimization for Energy Smart Grids and Markets". 06-09 Sep. 2016.

- XLVII Annual Meeting of AIRO - Italian Operations Research Society - ODS 2017, Sorrento (Italy). Talks on "A column generation based algorithm for an inventory routing problem with stochastic demands", "The optimal energy procurement problem: a stochastic programming approach". Chairman of session "Optimization under uncertainty 3". 4-7 Sep. 2017.
- XLVIII Annual Meeting of AIRO - Italian Operations Research Society - ODS 2018, Taormina (Italy). Talks on "A genetic algorithm framework for the orienteering problem with time windows", "The optimal tariff definition problem for a prosumers' aggregation", "Dealing with complex transaction costs in portfolio management", "A freight adviser for a delivery logistics service e-marketplace". 10-13 Sep. 2018.
- XLII Annual Meeting of AMASES - Association for Mathematics Applied to Social and Economic Sciences, Napoli (Italia). Talk on "Portfolio optimization with complex transaction costs", 13-16 Sep. 2018.
- XLIII Annual Meeting of AMASES - Association for Mathematics Applied to Social and Economic Sciences, Perugia (Italia). Talks on "A stochastic programming approach for the home energy management", 9-11 Sep. 2019.

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## **OTHER ACTIVITIES**

Referee for several international journals (including, European Journal of Operational Research, Decision Support Systems, Computer & Operations Research, Annals of Operations Research).

Reggio Calabria, 25 September 2019