Curriculum Vitae et Studiorum

Renato Bruni

Position (at June 2020)
Associate Professor in the Department of Computer, Control and Management Engineering of the "Sapienza" University of Rome, teaching in the Study programs in "Management Engineering" and "Bioinformatics" of the same university.

Address
Dipartimento di Ingegneria Informatica Automatica e Gestionale "A. Ruberti"
Università degli Studi di Roma "Sapienza", Via Ariosto, 25 - 00185 Roma
Tel. +39 - 06 77 274 089 Fax +39 - 06 77 274 074 Room A119
E-mail bruni@diag.uniroma1.it

Research Topics
The scientific activity belongs to the fields of Optimization, Machine Learning and Bioinformatics, focusing on the development of mathematical models and algorithms for real-world problems. In particular, the following research topics can be identified: Combinatorial Optimization, Data Mining, Classification, Derivative-free Optimization, with applications to: Portfolio management, Spacecraft attitude control, Machine scheduling, Timetabling, , Peptide analysis, Biomedical engineering, Information reconstruction.

Scientific Activity
• Principal Investigator in the following Research Projects:
"Modelli Robusti di Ottimizzazione Lineare e Intera per Problemi di Data Mining", Dec. 2013 - May 2015, funded by "Sapienza" University;
"Tecniche di Data Mining efficienti, robuste e basate sull'ottimizzazione per la risoluzione di problemi di Classificazione e Selezione di Investimenti", Dec. 2014 - May. 2016, funded by "Sapienza" University;
"Tecniche di Ottimizzazione Combinatoria per la risoluzione di problemi di Data Mining in campo Economico-Gestionale", Dec.2016 - Dec. 2019, funded by "Sapienza" University.

• Member of the research group of several research projects, both at National and European level; currently in the European Union H2020 Research Project "Research infrastructures for the assessment of science, technology and innovation policy 2" (RISIS 2 N° 824091, Jan. 2019 - Dec. 2022), and in the PRIN 2015 project "Comparing Governance Regime Changes in Higher Education: systemic performances, national policy dynamics, and institutional responses. A multidisciplinary and mixed methods analysis" (Prot. 2015RJARX7, Feb. 2017 - Feb. 2020).

• Research Coordinator in several joint research projects between Italian National Scientific Institute (Istat) and "Sapienza" University from 2001 to 2012 on Data mining and Information reconstruction. The outcome of these researches has been used in the development of several National Censuses of Population, of Agriculture and of Industries.

• Assistant Professor in the Department of Computer, Control and Management Engineering of the "Sapienza" University of Rome, from Jan. 2012 to Feb. 2020.

• Consulting Expert for the telecommunication company Teletu S.p.A. for the modellization of problems regarding the management of telecommunication lines, June. 2011 - Nov. 2011.

• Scientific Collaborator of the Office of Telecommunications Adjudicator of Italy (OTA-Italia) for the definition of model and algorithms for the automatic individuation of disservices by classifying data regarding communications lines, Jan. 2011 - June 2011.

• Holder of several Research Collaborator positions in the Department of Computer, Control and Management Engineering of the "Sapienza" University of Rome, from 2001 to 2010.

• Assistant Professor in the Department of Electronic and Information Engineering of the University of Perugia, from 2005 to 2009.

• Holder of a Research grant for the Department of Systems and Computer Science of Sapienza University of Rome from 2002 to 2004.

Education and Qualifications

Winner (with an evaluation of excellent) of 1 position of Assistant Professor in Operations Research (S.S.D. MAT/09) in the public competition organized by Università di Roma "Sapienza", Nov. 2011.

Qualified as eligible for a position of Researcher in the Scientific Area A.1 "mathematical sciences" in the public competition 364.96 organized by the Italian National Research Council (CNR), July 2011.

Winner of a position of Technologist in Computer Science in the public competition organized by the Italian National Statistic Office (Istat), Apr. 2010.

Qualified as "Maître de Conférence" in France for the sections: (i)"Mathématiques appliquées et applications des mathématiques"; (ii) "Informatique"; (iii) "Génie informatique, automatique et traitement du signal", Feb. 2007.

Winner (with a mark of 50/50) of a position of Researcher in Operations Research (S.S.D. MAT/09) in the public competition organized by Università di Perugia, Dec. 2004.

Ph. D. in Operations Research, XIII cycle, Nov. 1997 - Nov. 2000, Università di Roma "La Sapienza", Supervisor prof. A. Sassano.

Post-lauream program "Metodi matematici per l'analisi, il controllo e l'ottimizzazione dei Sistemi" (Mathematical Methods for Systems Analysis, Control and Optimization), Feb. 1997-Feb. 1998, Università di Roma "La Sapienza".

Qualification for the Profession of Engineer (State Exam), Rome, Feb. 1997.

Laurea (Equiv. to M.S.) in Engineering/Computer Science with specialization in Operations Research, with a mark of 110/110, Università di Roma "La Sapienza", Oct. 1996, advisor prof. A. Sassano,.

Maturità Classica (High School Diploma), "Cornelio Tacito" High School of Rome.

Teaching Activity

Professor of the course "Ottimizzazione Combinatoria" (Combinatorial Optimization) for the Management Engineering study program, "Sapienza" University of Rome from 2011 up today.

Professor of the course "Optimization Methods" (in English) for the Bioinformatics study program, "Sapienza" University of Rome from 2020.

Professor of the course "Ricerca Operativa" (Operations Research) for the Information Science Engineering study program, "Sapienza" University of Rome from 2001 to 2012.

Member of the Quality Committee for the Information Science Engineering study program, "Sapienza" University of Rome from 2008 to 2012.

Professor of the course "Metodi di Supporto alle Decisioni" (Decision Support Methods) for the Management Science Engineering study program in Terni, University of Perugia, from 2004 to 2009.

Professor of the course "Ricerca Operativa" (Operations Research) for the Management Science Engineering study program in Terni, University of Perugia, fron 2003 to 2008.

Professor of the course "Ricerca Operativa" (Operations Research) for the Computer Science Engineering study program and for the Telecommunications Engineering study program, "Sapienza" University of Rome from 2001 to 2003.

Member of the Board of the Ph.D. Program in Automatic Control, Bioengineering and Operations Research of "Sapienza" University of Rome from 2005 up today.

Supervisor of several Ph.D., Master and Bachelor Thesis for the "Sapienza" University of Rome and the University of Perugia.

Teacher of the course "Ottimizzazione Combinatoria II" (Combinatorial Optimization II), in the post-laurem program Mathematical Methods for Systems Analysis, Control and Optimization of "Sapienza" University of Rome in 1999.

Other Activities

• Editor of the monograph "Mathematical Approaches to Polymer Sequence Analysis and Related Problems", published by Springer, New York, from Apr. 2009 to Jan. 2011.

• Referee for several international Journals, including: Annals of Operations Research, Discrete Applied Mathematics, European Journal of Operational Research, European Journal of Finance, Economics Bulletin, Engineering Applications of Artificial Intelligence, Entropy, Expert systems with applications, IEEE Transactions on Signal Processing, Information Sciences, IMA Journal of Management Mathematics, INFORMS Journal on Computing, International Transactions in Operational Research, Journal of Automated Reasoning,

Journal of Combinatorial Optimization, Journal of Official Statistics, Journal of the Operational Research Society, Mathematical Programming, Nature Communications, National Academy Science Letters, Operations Research, Operations Research for Health Care, Optimization Methods and Software, Quantitative Finance and Economics, Survey Methodology, Telecommunication Systems.

• Member of several Program Committee, including: 6th International Conference on Operations Research and Enterprise Systems ICORES 2017; 10th International Conference on Agents and Artificial Intelligence ICAART 2018.

• Visiting at Rutgers University, Piscataway, New Jersey, for research activity on Orthogonalization of a Boolean Function, in collaboration with prof. P.L. Hammer and Prof. E. Boros, Nov.-Dec. 1999.

• Invited Speaker in several conferences, for instance at the International conference EURO-INFORMS 2013, Rome, Italy, July 2013.

• Session Chair and/or Organizer in several conferences, for instance at the 17th International Symposium on Mathematical Programming, Atlanta, USA, August 2000.

• Senior Engineer, registered since 1998 in the Order of Engineers of Rome section A (senior) for the sectors: (i) civil and environmental; (ii) industrial; (iii) information.

Renato Bruni

<div align="center">**Publications**</div>

Volumes

1. R. Bruni (editor), Mathematical Approaches to Polymer Sequence Analysis and Related Problems, Springer, New York, 2010, ISBN 978-1-4419-6799-2.

International journals

2. R. Bruni and A. Sassano, A Complete Adaptive Algorithm for Propositional Satisfiability, Discrete Applied Mathematics Vol. 127(3), 523-534, 2003.

3. R. Bruni, Approximating Minimal Unsatisfiable Subformulae by means of Adaptive Core Search, Discrete Applied Mathematics. Vol. 130(2), pag. 85-100, 2003. ISSN 0166-218X, indexed by Scopus and ISI, DOI: 10.1016/S0166-218X(02)00399-2.

4. R. Bruni and A. Sassano, Restoring Satisfiability or Maintaining Unsatisfiability by finding small Unsatisfiable Subformulae, Electronic Notes in Discrete Mathematics Vol. 9, pag. 162-173, Elsevier Science, 2001. ISSN 1571-0653, indexed by Scopus, DOI: 10.1016/S1571-0653(04)00320-8.

5. C. Bruni, R. Bruni, A. De Santis, D. Iacoviello, G. Koch, Global Optimal Image Reconstruction from Blurred Noisy Data by a Bayesian Approach, Journal of Optimization Theory and Applications, Vol. 115(1), pag. 67-96, 2002. ISSN 0022-3239, e-ISSN 1573-2878, indexed by Scopus and ISI, DOI: 10.1023/A:1019624913077.

6. G.L. Gianfranceschi, F. Giavarini, R. Bruni, I. Calzuola, L. De Angelis, G. Koch, V. Marsili, Study of Chromatin Peptides Structure by Mass/Mass Spectrometry, Journal of Peptide Science Vol.8(S1), 194, 2003. ISSN 1075-2617, e-ISSN 1099-1387, indexed by Scopus and ISI, DOI: 10.1002/psc.43.

7. R. Bruni, Discrete Models for Data Imputation, Discrete Applied Mathematics Vol. 144(1), pag. 59-69, 2004. ISSN 0166-218X, indexed by Scopus and ISI, DOI: 10.1016/j.dam.2004.04.004.

8. R. Bruni, On Exact Selection of Minimally Unsatisfiable Subformulae, Annals of Mathematics and Artificial Intelligence Vol. 43(1-4), pag. 35-50, 2005. ISSN 1012-2443, e-ISSN 1573-7470, indexed by Scopus and ISI, DOI: 10.1007/s10472-004-9418-z.

9. R. Bruni, Error Correction for Massive Data Sets, Optimization Methods and Software, Vol. 20(2-3), pag. 295-314, 2005. ISSN 1055-6788, e-ISSN 1029-4937, indexed by Scopus and ISI, DOI: 10.1080/10556780512331318281.

10. R. Bruni, On the Orthogonalization of Arbitrary Boolean Formulae, Journal of Applied Mathematics and Decision Sciences Vol. 9(2), pag. 61-74, 2005. ISSN 1173-9126, e-ISSN 1532-7612, indexed by Scopus, DOI: 10.1155/JAMDS.2005.61.

11. R. Bruni, G. Gianfranceschi, G. Koch, On Peptide De Novo Sequencing: a New Approach, Journal of Peptide Science Vol. 11, pag. 225-234, 2005. ISSN 1075-2617, e-ISSN 1099-1387, indexed by Scopus and ISI, DOI: 10.1002/psc.595.

12. R. Bruni, Reformulation of the Support Set Selection Problem in the Logical Analysis of Data, Annals of Operations Research Vol. 150(1), pag. 79-92, 2007. ISSN 0254-5330, e-ISSN 1572-9338, indexed by Scopus and ISI, DOI: 10.1007/s10479-006-0159-8.

13. R. Bruni and A. Santori, New Updating Criteria for Conflict-Based Branching Heuristics in DPLL Algorithms for Satisfiability, Discrete Optimization Vol. 5(2008), pag. 569-583, 2008. ISSN 1572-5286, indexed by Scopus and ISI, DOI: 10.1016/j.disopt.2006.10.012.

14. R. Bruni, Solving Peptide Sequencing as Satisfiability, Computer and Mathematics with Applications Vol. 55(5), pag. 912-923, 2008. ISSN 0898-1221, indexed by Scopus and ISI, DOI: 10.1016/j.camwa.2006.12.094.

15. R. Bruni, A Combinatorial Optimization Approach for Determining Composition and Sequence of Polymers, Algorithmic Operations Research Vol. 3(2), pag. 97-109, 2008. ISSN 1718-3235, indexed by Mathematical Reviews.

16. R. Bruni, A Logic-Based Approach to Polymer Sequence Analysis, Journal of Mathematical Modelling and Algorithms Vol. 9(3), p. 213-232, 2010. ISSN 1570-1166, indexed by Scopus, DOI: 10.1007/s10852-010-9136-y.

17. G. Bianchi, R. Bruni, A. Reale, Information Reconstruction via Discrete Optimization for Agricultural Census Data, Applied Mathematical Sciences Vol. 6(125), pag. 6241-6251, 2012. ISSN 1312-885X, indexed by Scopus

18. R. Bruni, F. Cesarone, A. Scozzari, F. Tardella, A New Stochastic Dominance Approach to Enhanced Index Tracking Problems, Economics Bulletin Vol. 32(4), pag. 3460-3470, 2012. ISSN 1545-2921, indexed by Scopus.

19. R. Bruni, G. Bianchi, A Formal Procedure for Finding Contradictions into a Set of Rules, Applied Mathematical Sciences Vol. 6(126), pag. 6253-6271, 2012. ISSN 1312-885X, indexed by Scopus.

20. R. Bruni, F. Cesarone, A. Scozzari, F. Tardella, No Arbitrage and a Linear Portfolio Selection Model, Economics Bulletin Vol 33(2), pag 1247-1258, 2013. ISSN 1545-2921, indexed by Scopus.

21. G. Bianchi, R. Bruni, A Reale, Balancing of Agricultural Census Data by Using Discrete Optimization, Optimization Letters Vol. 8(4), pag. 1553-1565, 2014. ISSN: 1862-4472, e-ISSN: 1862-4480, indexed by Scopus, DOI: 10.1007/s11590-013-0652-3.

22. R. Bruni, P. Detti, A Flexible Discrete Optimization Approach to the Physician Scheduling Problem, Operations Research for Health Care Vol. 3(4), pag. 191-199, 2014. ISSN: 2211-6923, indexed by Scopus, DOI: 10.1016/j.orhc.2014.08.003.

23. R. Bruni, G. Bianchi, Effective Classification using a Small Training Set based on Discretization and Statistical Analysis, IEEE Transactions on Knowledge and Data Engineering Vol. 27(9), 2349-2361, 2015. DOI: 10.1109/TKDE.2015.2416727. ISSN: 1041-4347, indexed by Scopus.

24. R. Bruni, F. Cesarone, A. Scozzari, F. Tardella, A Linear Risk-Return Model for Enhanced Indexation in Portfolio Optimization, Operations Research Spectrum Vol. 37(3), pag. 735-759, 2015. DOI: 10.1007/s00291-014-0383-6. ISSN: 0171-6468, e-ISSN: 1436-6304, indexed by Scopus.

25. G. Bianchi, R. Bruni, A. Reale, A Combinatorial Optimization Approach to the Selection of Statistical Units, Journal of Industrial and Management Optimization Vol. 12(2), pag. 515-527, 2016. ISSN: 1547-5816, indexed by Scopus.

26. G. Bianchi, R. Bruni, A. Reale, F. Sforzi, A Min-Cut Approach to Functional Regionalization, with a Case Study of the Italian Local Labour Market Areas. Optimization Letters Vol. 10(5), pag. 955-973, 2016. DOI: 10.1007/s11590-015-0980-6, ISSN: 1862-4472, e-ISSN: 1862-4480, indexed by Scopus.

27. R. Bruni, F. Cesarone, A. Scozzari, F. Tardella, Real-world datasets for portfolio selection and solutions of some stochastic dominance portfolio models. Data in Brief Vol. 8, pag. 858-862, 2016. ISSN: 2352-3409, indexed by Scopus.

28. R. Bruni, F. Cesarone, A. Scozzari, F. Tardella, On Exact and Approximate Stochastic Dominance Strategies for Portfolio Selection. European Journal of Operational Research 259(1), 322-329, 2017. DOI: 10.1016/j.ejor.2016.10.006. ISSN: 0377-2217, indexed by Scopus.

29. R. Bruni, F. Celani, A Robust Optimization Approach for Magnetic Spacecraft Attitude Stabilization, Journal of Optimization Theory and Applications 173(3), 994-1012, 2017. DOI: 10.1007/s10957-016-1035-6. ISSN: 0022-3239, e-ISSN: 1573-2878, indexed by Scopus.

30. R. Bruni, Stock Market Index Data and indicators for Day Trading as a Binary Classification problem, Data in Brief, Vol. 10, pag. 569-575, 2017. ISSN: 2352-3409, indexed by Scopus.

31. R. Bruni, G. Bianchi, F. Scalfati, Identifying e-Commerce in Enterprises by means of Text Mining and Classification algorithms, Mathematical Problems in Engineering Vol 2018, n. 7231920, 2018. DOI: 10.1155/2018/7231920 ISSN: 1024-123X, indexed by Scopus.

32. R. Bruni, G. Bianchi, C. Dolente, C. Leporelli, Logical Analysis of Data as a Tool for the Analysis of Probabilistic Discrete Choice Behavior, Computers & Operations Research Vol. 106, pp. 191-201, 2019. DOI: 10.1016/j.cor.2018.04.014, ISSN: 0305-0548, indexed by Scopus.

33. P. Detti, G. Zabalo Manrique de Lara, R. Bruni, M. Pranzo, F. Sarnari, G. Vatti. A Patient-specific Approach for Short-term Epileptic Seizures Prediction through the Analysis of EEG synchronization. IEEE Transactions on Biomedical Engineering 66(6), 1494-1504, 2019. DOI 10.1109/TBME.2018.2874716, 2018. ISSN: 0018-9294, indexed by Scopus.

34. S.K. Baruah, V. Bonifaci, R. Bruni, A. Marchetti-Spaccamela, ILP models for the allocation of recurrent workloads upon heterogeneous multiprocessors. Journal of Scheduling Vol. 22(2), pp. 195-209, 2019. DOI 10.1007/s10951-018-0593-x, 2018, ISSN: 1099-1425, indexed by Scopus.

35. R. Bruni, F. Celani, Combining Global and Local Strategies to Optimize Parameters in Magnetic Spacecraft Control via Attitude Feedback, Journal of Optimization Theory and Applications Vol 181(3), pag. 997-1014, 2019. DOI: 10.1007/s10957-019-01492-0. ISSN: 0022-3239, e-ISSN: 1573-2878, indexed by Scopus.

36. C. Daraio, R. Bruni, G. Catalano, A. Daraio, G. Matteucci, M. Scannapieco, D. Wagner-Schuster, B. Lepori, European Tertiary Education Register (ETER): Evolution of the data quality approach. Journal of Data and Information Science (2020) DOI 10.2478/jdis-2020-0019.

37. R. Bruni, G. Bianchi, Website categorization: a Formal Approach and Robustness Analysis in the case of E-commerce Detection, Expert Systems with Applications Vol 142, 113001, 2020. ISSN: 0957-4174, indexed by Scopus DOI: 10.1016/j.eswa.2019.113001.

Chapters in volumes, proceedings or post-proceedings published in internationals series

38. R. Bruni and A. Sassano, Finding Minimal Unsatisfiable Subformulae in Satisfiability Instances, in R. Dechter (ed.), Principles and Practice of Constraint Programming - CP2000, Lecture Notes in Computer Science 1894, Springer-Verlag, 2000. ISSN 0302-9743, indexed by Scopus.

39. R. Bruni and A. Sassano, Errors Detection and Correction in Large Scale Data Collecting, in Advances of Intelligent Data Analysis - IDA2001, Lecture Notes in Computer Science 2189, pag. 84-94, Springer-Verlag, 2001. ISSN 0302-9743, indexed by Scopus.

40. R. Bruni, A. Reale, R. Torelli, DIESIS: a New Software System for Editing and Imputation, in Proceedings SIS 2002 Conference, Milano, Italy, Edizioni CLEUP, Padova, 2002. ISBN 88-7178-589-4.

41. R. Bruni, Solving Error Correction for Large Data Sets by means of a SAT Solver, in E. Giunchiglia and A. Tacchella (eds.), Sixth International Conference on Theory and Applications of Satisfiability Testing -Selected Papers, Lecture Notes in Artificial Intelligence 2919, pag. 229-241, Springer-Verlag, 2003. ISSN 0302-9743, indexed by Scopus.

42. G. Bianchi, R. Bruni, R. Nucara, A. Reale, Data Clustering for Improving the Selection of Donors for Data Imputation, in S. Zani, A. Cerioli (eds.) Classification and Data Analysis 2005, Book of short papers, Edizioni MUP, Parma, 2005. ISBN: 88-7847-066-X.

43. G. Bianchi, F. Bianchi, R. Bruni, N. Esposito, F. Lorenzini, A. Reale, G. Ruocco, A methodological approach for determining eligible units in the 2010 Italian Agricultural Census, in Proceedings of SIS 2008 Conference, Cosenza, Italy, Edizioni CLEUP, Padova, 2008. ISBN 978-88-6129-228-4.

44. G. Bianchi, R. Bruni, A. Reale, Open Source Integer Linear Programming Solvers for Error Localization in Numerical Data, in Proceedings of SIS 2010 Conference, Padova, Italy, Edizioni CLEUP, Padova, 2010. ISBN 978-88-6129-566-7.

45. R. Bruni, Complete and Exact Peptide Sequence Analysis based on Propositional Logic, in R. Bruni (ed.), Mathematical Approaches to Polymer Sequence Analysis and Related Problems, pag. 1-22, Springer, New York, 2011. ISBN 978-1-4419-6799-2, indexed by Scopus, DOI: 10.1007/978-1-4419-6800-5_1.

46. G. Bianchi, R. Bruni, A. Reale, Open Source Integer Linear Programming Solvers for Error Localization in Numerical Data, in N. Torelli, F. Pesarin, A. Bar-Hen (Eds.), Advances in Theoretical and Applied Statistics. Series: Studies in Theoretical and Applied Statistics, Springer, New York, 2013. ISBN 978-3-642-35588-2.

47. S.K. Baruah, V. Bonifaci, R. Bruni, A. Marchetti-Spaccamela, ILP-based approaches to partitioning recurrent workloads upon heterogeneous multiprocessors. IEEExplore 2159-3833/16, 2016, indexed by Scopus, DOI: 0.1109/ECRTS.2016.10.

48. R. Bruni, F. Celani, Determining optimal parameters in magnetic spacecraft stabilization via attitude feedback AIP Proceedings 1776, 2016, indexed by Scopus, DOI: 10.1063/1.4965396.

Patents

49. R. Bruni, G. Gianfranceschi, G. Koch, Procedimento per la determinazione automatica della composizione e della sequenza di un polimero, patent number MI2002A 000396, 2002. English version: A procedure for automatic determination of the composition and of the sequence of a polymer, International Patent Application number: PCT/IB03/00714, 2003.

International conferences

50. R. Bruni and P.L. Hammer, Orthogonalization of a Boolean Function (Extended abstract), in Proceedings of EURO XVII - 17th European Conference on Operational Research, Budapest, Hungary, 2000.

51. R. Bruni and A. Sassano, Solving Propositional Satisfiability by Identification of hard Subformulae, in Proceedings of the 17th International Symposium on Mathematical Programming (ISMP2000), Atlanta, USA 2000.

52. R. Bruni and A. Sassano, Restoring Satisfiability or Maintaining Unsatisfiability by finding small Unsatisfiable Subformulae, in Proceedings of Theory and Applications of Satisfiability Testing (SAT2001), Boston, USA 2001.

53. R. Bruni, A. Reale, R. Torelli, Optimization Techniques for Edit Validation and Data Imputation, in Proceedings of Statistics Canada International Symposium 2001, Ottawa, Canada, 2001.

54. R. Bruni and A. Sassano, Errors Detection and Correction in Large Scale Databases (Extended abstract), in Proceedings of the annual conference AIRO, Villasimius, Italy, 2001.

55. R. Bruni, Discrete Mathematics for Data Imputation, in Proceedings of Second SIAM International Conference on Data Mining, Worksop on Discrete Mathematics and Data Mining, Arlington, Virginia, USA, 2002.

56. R. Bruni, Exact Selection of Minimal Unsatisfiable Subformulae for Special Classes of Propositional Formulae, in Proceeding of Fifth International Symposium on Theory and Applications of Satisfiability Testing, Cincinnati, Ohio, USA, 2002.

57. R. Bruni, S. Canale, A. Sassano, Detection of Outliers in Large Databases (Abstract), In Proceedings of International Workshop on Mathematical Diagnostics, Erice, Italy, 2002.

58. R. Bruni, S. Canale, A. Sassano, Automated Learning Approaches (Extended abstract), in Proceedings of the annual conference AIRO, L'Aquila, Italy, 2002.

59. R. Bruni, A. Reale, R. Torelli, Error Correction Models (Extended abstract), in Proceedings of the annual conference AIRO, L'Aquila, Italy, 2002.

60. R. Bruni, A. Sassano, Case Study: Course Timetabling in "La Sapienza" (Extended abstract), in Proceedings of the annual conference AIRO, L'Aquila, Italy, 2002.

61. R. Bruni, Solving Error Correction for Large Data Sets as Propositional Satisfiability, in Proceedings of Sixth International Conference on Theory and Applications of Satisfiability Testing , Portofino, Italy, 2003.

62. R. Bruni, Data Mining for Error Correction of Real World Massive Data Sets (Extended abstract), in Proceedings of the annual conference AIRO, Venezia, Italy, 2003.

63. R. Bruni, A. Santori, Adding a New Conflict Based Branching Heuristic in two evolved DPLL SAT Solvers, in Proceedings of Seventh International Conference on Theory and Applications of Satisfiability Testing, Vancouver, Canada, 2004.

64. R. Bruni, BrChaff: a Chaff-like DPLL Solver using RAS Heuristic, in SAT Competition 2004 - Solver Descriptions, 3rd International Competition on Satisfiability Testing, Vancouver, Canada, 2004.

65. R. Bruni, Real-time Classification of Large Data Sets using Binary Knapsack (Extended abstract), in Proceedings of the annual conference AIRO, Lecce, Italy, 2004.

66. R. Bruni, Solving De Novo Peptide Sequencing via Propositional Logic (Extended abstract), in Proceedings of the annual conference AIRO, Camerino, Italy, 2005.

67. R. Bruni, On Accurate and Automatic Peptide De Novo Sequencing, Poster in Perspectives of Metabonomics and Proteomics Investigations in Clinical Science, Roma, Italy, 2006

68. R. Bruni, De Novo Peptide Sequencing via Tandem Mass Spectometry and Propositional Satisfiability, in Proceedings of 1st FIMA International Conference "Models and Methods for Human Genomics", Aosta, Italy, 2006.

69. R. Bruni, Clustering for improving Information Reconstruction (Extended abstract), in Proceedings of the annual conference AIRO, Cesena, Italy, 2006.

70. R. Bruni, Fast and Accurate Classification using Discretization and Binary Knapsack (Extended abstract), in Proceedings of the AIRO winter International Conference, Cortina, Italy, 2007

71. R. Bruni, F. Bianchi, G. Bianchi, A. Reale, Cutting Planes for Surveying Italian Agriculture and Industry (Extended abstract), in Proceedings of the annual conference AIRO, Ischia, Italy, 2008.

72. R. Bruni, A Logic-Based Approach to Polymer Sequence Analysis, in Proceedings of EURO conference on Computational Biology, Bioinformatics and Medicine, Roma, Italy, 2008.

73. R. Bruni, Using the Power of Formal Languages and SAT Solvers for effective Polymer Sequence Analysis (Extended abstract), in Proceedings of the AIRO winter International Conference, Cortina, Italy, 2009.

74. R. Bruni, A Logic-based Approach to Peptide Sequencing, in Proceedings of Bio-Logical 2009, workshop of the AI*IA 2009 Conference, Reggio Emilia, Italy, 2009.

75. R. Bruni, F. Cesarone, A. Scozzari, F. Tardella, A Linear Risk-Return Model for Enhanced Indexation, in Proceedings of XIII Workshop on Quantitative Finance, L'Aquila, Italy, 2012.

76. R. Bruni, F. Cesarone, A. Scozzari, F. Tardella, A Linear Programming Model For Enhanced Indexation Based On Strong Stochastic Dominance, in Proceedings of EURO 2012 - 25th European Conference on Operational Research, Vilnius, Lithuania, 2012.

77. R. Bruni, F. Cesarone, A. Scozzari, F. Tardella, A Linear Risk-Return Approach to Enhanced Indexation, in Proceedings of EURO 2012 - 25th European Conference on Operational Research, Vilnius, Lithuania, 2012.

78. R. Bruni, G. Bianchi, Classification using small Training Sets based on Boolean Logic and Statistical Analysis, in Proceedings of EURO 2013 - 26th European Conference on Operational Research, Rome, Italy, 2013.

79. F. Celani, R. Bruni, Optimal Gains for Attitude Stabilization of Spacecraft Using Magnetorquers, in Proceedings of 3rd IAA Conference on University Satellite Missions, Rome, Italy, 2015.

80. R. Bruni, New and Effective Techniques for Classification, in Workshop: Challenges of Big Data for Economic Modeling and Management, Rome, Italy, 2015.

81. F. Cesarone, R. Bruni, A. Scozzari, F. Tardella. On Exact and Approximate Stochastic Dominance Strategies for Portfolio Selection. XVII Workshop on Quantitative Finance, Pisa, Italy, 2016.

82. F. Cesarone, R. Bruni, A. Scozzari, F. Tardella. Exact and Approximate Stochastic Dominance for Portfolio Selection, AMASES 40, Catania, Italy, 2016.

83. G. Bianchi, R. Bruni, F. Scalfati. Identifying e-Commerce in Enterprises by means of Web Scraping, Text Mining and Classification, 2nd Meeting of the Big Data Technical Committee on the Use of Big Data for Official Statistics, Rome, Italy, 2017.

84. M. Gregori, C. Daraio, G. Catalano, R. Bruni, H. Moed. Characterizing the Heterogeneity of European Higher Education Institutions Combining Cluster and Efficiency Analyses. 17th Intl. Conference on Scientometrics & Informetrics (ISSI2019), Rome, Italy, 2019.

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