

CURRICULUM VITAE
Francesco Masulli
2 Oct 2024

Last name: Masulli
First name: Francesco
Born on 17 June 1952 xxxxxxxx
Marital Status:xxxxxx
Nationality: Italian

Formerly Full Professor at University of Genoa
Retired as of 1 Nov 2022 due to having reached the statutory age limit

Life Senior Member IEEE
Innovation Manager MISE

Affiliations:

Adjunct Professor
DIBRIS Dipartimento di Informatica, Bioingegneria,
Robotica e Ingegneria dei Sistemi
University of Genoa (Italy)
<https://person.dibris.unige.it/masulli-francesco/>

Adjunct Professor
Center for Biotechnology, College of Science and Technology
Temple University, Philadelphia (PA, USA).

Founding Partner
Vega Research Laboratories s.r.l.
<http://www.vegaresearchlabs.com/>

Scopus ID: 7004547092
Web of Science Researcher ID: V-9719-2017
Orcid ID: <https://orcid.org/0000-0002-6612-0932>
Publons ResearcherID V-9719-2017
Google Scholar: <https://tinyurl.com/3wfv8j9c>
Linkedin: <https://tinyurl.com/44wv2m7m>

Address for correspondence:

Dr. F. Masulli
xxxxxxxxx
xxxxxx
xxxxx

email francesco.masulli@unige.it

Qualifications/Degrees:

- Jul 8th 2010 National qualification as Full Professor of Computer Science in Italy (Idoneità a Professore Ordinario – Raggruppamento di Informatica INF/01).
- Jan 29th, 2009 National qualification as Full Professor of Computer Science in France (Qualification Corps Professeur des université section 27 – Informatique N° de qualification 09127193332).
- Jan 25th, 2001 National qualification as Associate Professor of Computer Science in Italy (Idoneità a Professore Associato – Raggruppamento di Informatica INF/01).
- Dec 12th, 1976. Laurea (Master) degree in Physics (Thesis on Machine Learning and Visual Perception), University of Genoa (Italy), Summa cum Laude.

Positions Held:

- Adjunct Professor (Professore a Contratto) of Computer Science, University of Genoa (Italy), Nov 2022 – Continuing.
- Full Professor of Computer Science, University of Genoa (Italy), Nov 2016 - Oct 2022 (Retired as of 1 Nov 2022 due to having reached the statutory age limit).
- Associate Professor of Computer Science, University of Genoa (Italy), Dec 2005-Oct 2016.
- Visiting Professor, I3S, Laboratoire Informatique, Signaux et Systèmes de Sophia-Antipolis (Nice, France) Pole MDSC (Discrete models for complex systems) (July-August 2009).
- Adjunct Associate Professor, Sbarro Institute for Cancer Research and Molecular Medicine - Center for Biotechnology - Temple University - Philadelphia (PA, USA), Jan 2008-continuing.
- Associate Professor of Computer Science, University of Pisa (Italy), Nov 2001-November 2005.
- Head, Computational Intelligence research group of DIBRIS - Univ. Genoa (Italy) 1997- continuing.
- Assistant Professor, University of Genoa (Italy), Jun 1983–Oct 2001.
- Senior Visiting Scientist, ICSI International Computer Science Institute, Berkeley, California (USA) Jan-Jul 1991, Jul 1993, Sep 1994.
- Visiting researcher, University of Nijmegen (Holland), Jan-May 1983.
- Researcher, Ansaldo Automazione Co., Genoa (Italy), 1980-1982.
- Researcher, National Institute for Nuclear Physics, Genoa (Italy), 1979.
- Military duties, 1977-1978.

Honors:

- Life Senior Member IEEE, elected Jan 1st, 2023.
- Former Chair elected of the IEEE Computational Intelligence Society Chapter Italy Section (March 1, 2017, Dec).
- Vice-Chair elected of the IEEE Computational Intelligence Society Chapter Italy Section (Mar 26, 2013 – Jan 1st 2023).
- Recipient of the Best Tutorial Award at SETIT 2012 6th International Conference: Sciences of Electronic, Technologies of Information and Telecommunications, March 21-24, 2012, Sousse, Tunisia for the tutorial F. Masulli, "Natural Computing

- and Bioinformatics".
- National scientific evaluation VQR 2004-2010: five assessments "excellent" out of five.
- Recipient of the Best Paper Award 2008 (consisting of a cash prize and a medal) of the Pattern Recognition Society for the best paper published by the journal Pattern Recognition in 2008 for the paper Filippone, M., Camastra, F., Masulli, F., Rovetta, S. "A survey of kernel and spectral methods for clustering" Pattern Recognition 41 (1), pp. 176-190 2008.
- Highest publication rate while at Dept of Computer Sciences, Univ. Pisa (Italy), 2003 and 2004.
- Senior Member IEEE, elected Apr 3rd, 2004.

Invited talks:

- Faculty of Engineering and Informatics, University of Bradford, UK (2019)
- Faculty of Engineering and Informatics, University of Bradford, UK (2016)
- Amity University, Uttar Pradesh, Noida, India (2016)
- Faculty of Engineering and Informatics, University of Bradford, UK (2016)
- The Methodist Hospital Research Institute (TMHRI), Houston, Texas (2011)
- Dipartimento di Scienze Applicate, Univ. Parthenope, Napoli (2011)
- Dipartimento di Informatica, Univ. di Salerno (2011)
- Dipartimento di Informatica, Sistemistica e Comunicazione, Univ. Milano-Bicocca (2010)
- Dipartimento di Matematica e Informatica, Univ. Salerno (2010)
- Dipartimento di Scienze dell'Informazione, Univ. Milano (2010)
- Center for Biotechnology, Temple University, Philadelphia PA, USA (2009)
- Neuroscience Center, University of Geneva (2009)
- Dip. Scienze dell'Informazione, Univ. Milan, Italy (2008)
- Dip. Anatomia Patologica, Univ. Siena, Italy (2008)
- Dip. Informatica, Univ. Verona, Italy (2008)
- Dip. Scienze Applicate, Univ. Naples "Parthenope", Naples, Italy (2008)
- Dept Information Technology and Engineering, George Mason University, Fairfax, VA, USA (2007)
- National Institutes of Health, Bethesda, MD, USA (2007)
- Center for Biotechnology - Temple University, Philadelphia, PA, USA (2007)
- Laboratoire de Neurobiophysique – Univ. Joseph Fourier, Grenoble, France (2006);
- Institute for Genomics and Bioinformatics - University of California, Irvine CA, USA (2006)
- Centre for Soft Computing Research - Indian Statistical Institute, Kolkata, India (2006)
- Machine Intelligence Unit - Indian Statistical Institute, Kolkata, India (2006)
- Jawaharlal Nehru Technological University, Hyderabad, India (2006)
- Dipartimento di Matematica Applicata – Univ. Venezia, Italy (2005)
- Department of Computer Systems and Computation - Polytechnic University of Valencia, Spain (2005)
- Dipartimento di Matematica ed Applicazioni – Univ. Palermo, Italy (2004)
- Institut Dalle Molle d'Intelligence Artificielle Perceptive (IDIAP), Martigny, Switzerland (2004)
- Dipartimento di Matematica Applicata – Univ. Venezia, Italy (2000)
- Istituto per le Tecnologie Multimediali CNR - Milano, Italy (1998)

- Dipartimento di Matematica Applicata – Univ. Venezia, Italy (1997)
- NEC Research Institute - Princeton NJ, USA (1997)
- IIASS- Istituto Internazionale per gli Alti Studi Scientifici, Vietri-Salerno, Italy (1995)
- Dipartimento di Informatica – Univ. Milano, Italy (1994)
- Dipartimento di Informatica – Univ. Pisa, Italy (1994)
- Istituto di Fisica – Univ. Torino, Italy (1986)
- Istituto di Psicologia – Univ. Trieste, Italy (1985)

Keynote speech and invited paper/tutorial at International Conferences

- "Fuzzy Clustering", First European Summer School on Fuzzy Logic and Applications, 7-11 September 2015 Lake Como School of Advanced Studies, Como, Italy (invited tutorial).
- Tracking Time-Evolving Data Streams and an Application to Short-Term Urban Traffic Flow Forecasting, 5th International Conference on Reliability, Infocom Technology and Optimization 5th International Conference on Reliability, Infocom Technology and Optimization (ICRITO2016), Sep 7-9, 2016, Amity University, Noida, India (keynote).
- "Computational Intelligence and Big Data in Health" , Faculty Development Program, Faculty of Engineering and Informatics, Amity Institute of Information Technology, Amity University Uttar Pradesh, Noida, India, 8 Sep 2016 (invited tutorial).
- Tracking Time-Evolving Data Streams and an Application to Short-Term Urban Traffic Flow Forecasting", Faculty of Engineering and Informatics, University of Bradford, UK, 9 Sep 2016 (invited lecture).
- "Time Evolving Data Streams Unsupervised Tracking" (2 ore) 2017 IEEE CIS Summer School on Recent Advances in Computational Intelligence (RACI 2017), 18-22 September 2017, Kolkata , India (invited tutorial).
- "(1)Introduction to data clustering; (2) Fuzzy Clustering", 4-th European Summer School on Fuzzy Logic and Applications (SFLA 2018)", Jun 25-29 2018, Bari, Italy (invited tutorial).
- "Unsupervised Tracking of Time-Evolving Data Streams", 12th International Conference on Scalable Uncertainty Management (SUM 2018) Oct 3-5 2018, Milan, Italy (invited tutorial).
- "Fuzzy Control in Positive Computing Systems", IEEE Games Entertainment & Media Conference (GEM 2018), Aug 15-17 2018, Galway, Ireland (invited panelist).
- "(1) Introduction to data clustering; (2) Fuzzy Clustering" 4-th European Summer School on Fuzzy Logic and Applications (SFLA 2018)", Bari, Italy, Jun 25-29 2018 (4 ore) (invited tutorial).
- "A Computational Intelligence Approach to Short-Term Urban Traffic Flow Forecasting", 4th MEC International conference on Big Data and smart city (ICBDSC) 2019, Jan 15-16, 2019, Middle East College, Muscat, Oman (invited keynote).
- "Optimizing Predictive Maintenance using AI", 6th International Conference on Optimization and Applications (ICOA2020) Mar 17 - 18 2020, Presidence Universite Sultan Moulay Slimane, Beni-Mellal, Morocco (invited keynote).
- "Fuzzy Clustering Approach to Short Term Urban Traffic Flow Forecasting",

International Conference on Fuzzy Mathematical Analysis and Advances in Computational Mathematics (FMAACM), 25-26 February 2021, Pondicherry University, Pondicherry, India (invited keynote).

Main international collaborations:

- Daniel Neagu - University of Bradford, UK
- Hanaa Hachimi - Ibn Tofail University, Kenitra, Morocco
- Antonio Giordano - Sbarro Institute for Cancer Research and Molecular Medicine, Center for Biotechnology, Temple University - Philadelphia PA, USA
- Maria Pia Bucci - CNRS (CR1-HDR) Paris, France
- Elena Bertozzi - Visual and Performing Arts - Quinnipiac University, CT, USA
- Sankar Pal, Sanghamitra Bandyopadhyay, Sushmita Mitra - Indian Statistical Institute - Kolkata, India
- Alessandro Villa, Université de Lausanne - Svizzera
- Paulo Lisboa - Liverpool John Moores University - Liverpool, UK
- Carlotta Domeniconi - Department of Information and Software Engineering - George Mason University - Fairfax, VA, USA
- Hidetomo Ichihashi e Katsuhiko Honda - Department of Computer Sciences and Intelligent Systems, Osaka Prefecture University - Osaka, Japan
- Ludmila I. Kuncheva - School of Informatics - University of Wales - Bangor, UK
- Thomas G. Dietterich - Computer Science Department - Oregon State University, Corvallis, Oregon, USA
- Leif Peterson - The Methodist Hospital Research Institute Houston and NXG Logic LLC - Huston, TX, USA

Research Activity

Keywords: *Machine learning, clustering, fuzzy logic, neural networks, evolutionary algorithms, high dimensional data, big data, well-being technologies.*

In the last 30 years my research has been focused on the development of new methods of machine learning and computational intelligence (neural networks, fuzzy logic and evolutionary algorithms) and their applications, in particular to the analysis of high dimensional data in Bioinformatics in the frame of several collaborations with prestigious biomedical institutions, including the Sbarro Institute for Cancer Research and Molecular Medicine of Temple University (Philadelphia, PA-USA), the IST-Istituto Nazionale per la Ricerca sul Cancro (Genoa, Italy), and the University Joseph Fourier Grenoble 1 (France). In the last 5 years I started a new activity research on Well-Being Technologies, aimed to design systems supporting mental and physical well-being based on synergistic usage of and (wearable) consumer-electronics sensors data, computational intelligence large data analysis, and gamification approaches.

Main results I achieved:

- Clustering algorithms:
 - A method integrating the Deterministic Annealing clustering method and

some heuristics for cluster aggregation/dissolution and its application to the analysis of the activity of populations of biological neurons.

- Study of fuzzy possibilistic clustering algorithms and their applications to the segmentation of multimodal medical images, and to the recognition of ring structures of points immersed in strong noise (for application on the recognition of Cherenkov tracks for the LHCb experiment of CERN).
- A model called Graded Possibilistic Clustering based on the paradigm of intervals that unifies the probabilistic and possibilistic approaches to fuzzy clustering. The proposed algorithm can accurately model the membership functions, filter outliers and find the optimal number of clusters.
- A new approach to hierarchical clustering for large data dimensionality and low cardinality called Shared Farthest Neighbor Approach.
- A new definition of fuzzy ranking and its application to vector quantization and hierarchical clustering.
- A new kernel fuzzy clustering algorithm, called One-Cluster Possibilistic C-Means in Feature Space, based on the application of the algorithm of possibilistic fuzzy C-Means in the space induced by a kernel. The proposed algorithm preserves the properties of the original algorithm and can model the shape of the data density of a non-parametric way. This algorithm can be regarded as a generalization of the classical One-Class SVM algorithm.
- Other topics of machine learning and computational intelligence:
 - A neuro-fuzzy classifier supervised classifier approximating the optimal Bayes in the limit of large numbers of examples, and able to learn its parameters exploiting the numerical knowledge available in form of a set of examples. Before learning the classifier can be structured using the linguistic knowledge available on the classification problem expressed as fuzzy rules.
 - A serial ensemble of learning machines incorporating a neuro-fuzzy classifier with a local classical rule based on the Nearest Neighbor rule. The proposed ensemble shows an overall generalization better than those of its component classifiers.
 - A supervised classifier based on a decompositive ensemble, called Parallel Non-Linear Dichotomizers (PND) using a set of multi-layer perceptrons as dichotomizers.
 - Several models of learning machines for time series prediction. The latter model approaches the estimation of the tide in the lagoon of Venice, and is based on a input selection method using fuzzy sets and on ensemble learning methods involving Bagging or Adaboost.
- Applications of machine learning and computational intelligence in bioinformatics:
 - Algorithms for class discovering employing clustering methods for data at high dimensionality and low cardinality based on fuzzy ranking and on the Shared Farthest Neighbor approach to hierarchical clustering
 - Algorithms for biomarker selection techniques employing input selection, either through an ensembling technique integrating the local relevance of the input variables, or through the application of simulated annealing.
 - An algorithm for co-clustering (biclustering) based on an extension of fuzzy possibilistic clustering algorithms. Biclustering algorithms cluster data and features at the same time. When applied to DNA microarray data, biclustering algorithms allow us to treat various biological problems including the identification of co-regulated genes, the extension of the functional annotation of genes, and the tissue classification. The proposed algorithm

- finds very large and homogeneous biclusters.
- An algorithm for the prediction of target genes of specific microRNAs (miRNAs) that has been optimized to match biological knowledge through the application of genetic algorithms (machine learning algorithms inspired to biological evolution). microRNAs are a class of short noncoding RNAs that negatively control the expression of hundreds mRNA targets. Human miRNAs play key roles in differentiation, proliferation, cell death, neurogenesis and synaptic function and are deregulated in various diseases, such as prostate cancer, lung cancer, breast cancer, and colorectal cancer. The proposed method is more selective than state of art programs (e.g., miRanda) and may be used to guide biological experimental validation in a more focused direction. The present application domains are prostate cancer and neurogenesis.
 - A decision support system based on neuro-fuzzy methods for the design and analysis of oligonucleotide microarray for the Human Leukocyte Antigens (HLA) system typing, which consists of three regions of the human genome and is important for the histological determination of the compatibility between donor and receiver in transplantation.
 - The fields where I applied the methods of machine learning and computational intelligence I proposed, include: (a) the segmentation of multivariate medical imaging (b) the disambiguation of natural language; (c) the analysis of electronic nose data; (d) the monitoring the operation of an electric/hybrid vehicle; (e) the handwriting recognition; (f) the morphological analysis and dating of documents in paleography.

Spin-off Company:

Founding partner of Vega Research Laboratories s.r.l. (VRLabs) established as a spin-off of the University of Genoa in 2017 with the aim of providing in the industrial and health sectors innovative digital services based on artificial intelligence, machine learning and other emerging ICT technologies.

In the industrial and smart city fields, VRLabs has successfully applied artificial intelligence to circular economy in WEEE, pallet unstacking, prognostic maintenance, warehouse optimization, team resource management, identification of audio events and source localization, and urban traffic flow forecasting and is developing innovative sensors for monitoring large metal slabs welding.

In the healthcare sector, VRLabs has developed a tool for gaze tracking based on standard web-cameras and neural networks for the early detection of cognitive diseases and direction of focus of attention localization, mobile-health and artificial intelligence systems for frail and / or sick people monitoring and supporting, tools for stress and emotion evaluation using face images, photoplethysmography and voice, and machine learning systems for disease diagnostic and prognostic using bioinformatics data and biomedical images.

VRLabs participated at the COST Action IC1406 High-Performance Modeling and Simulation for Big Data Applications and received a grant from EIT RawMaterials in 2020 for a project on the application of artificial intelligence to the circular economy of waste from electrical and electronic equipment (WEEE) and is participating in the I-Genoa project approved by the Municipality of Genoa (Italy) aimed at on-field testing of smart street lamps equipped with cameras and acoustic sensors and processing of their video and

audio streams with machine learning techniques.

Professional Activities:

Direction of National Projects

- *Clustering high dimensionality data* founded by the Italian National Institute of Advanced Mathematics Francesco Severi (INDAM) in 2012.

Direction of research groups

Founder and head of the research group on Machine Learning and Computational Intelligence at DISI - Dept. Computer and Information Sciences, University of Genoa (Italy) that in 2012 merged in the DIBRIS – Dept. of Informatics, Bioengineering, Robotics and Systems Engineering

The other permanent member of the research group is Stefano Rovetta (Associate Professor).

Post-Doc of my research Group:

- Zied Mnastri (Assistant Professor at Université de Tunis-EI Manar, Tunisia) Short-term urban traffic forecasting, 2019-2021.
- Mahdi Amina (PhD University of Westminster, London – UK), Machine learning algorithms for the discrimination of patient status, 2013-2015.
- Raffaella Rosasco (PhD University of Genoa -Italy), Machine learning algorithms for the discrimination of patient status, 2012-2013.
- Manjunath Aradhya V.N. (PhD University of Mysore, Mysore-India), Computer Science and Applied Mathematics, 2009.
- Subbaiya Rammohan Kannan (PhD Indian Institute of Technology, Madras-India), Soft-computing methods for computerized support to surgery, 2003-2004.
- Piotr Bogus (PhD Univ. Gdansk, Poland), Neuro-fuzzy methods for the analysis of multimodal medical images, 1996-1997.
- Leonard Studer (PhD Univ. Lausanne, Switzerland), Fuzzy systems for time series forecasting, 1996-1997.

Phd Students supervised:

- Ali Varasteh Ranjbar, *Application of Artificial Intelligence in Manufacturing*, Univ. Genoa 2023 -- 2027
- Muhammad Mohsin, *Application of Artificial Intelligence Techniques for the Selective Disassembly of Electronic Components from WEEE*, Univ. Genoa 2021 – 2023.
- Alberto Cabri, *Quantum inspired approach for early classification of time series*, Univ. Genova, 2016 – 2019.
- Hatim Derrouz, *Application of Artificial Intelligence methods to traffic management*, National School of Computer Science and Systems Analysis (ENSIAS) in Rabat, Morocco (visiting student for 3 months in 2019).
- Zahra Shojaee, *An Investigation of Clustering Methods using Information Theory*, University of Yazd, Yazd, Iran (visiting student for 6 months in 2018-2019)
- Subhashis Banerjee, *Brain Tumor Detection and Classification from Multi-*

Channel MRI, University of Calcutta, Kolkata, India, 2016 - (visiting student for 6 months in 2017)

- Amr Rashad Ahmed Abdullatif, *Unsupervised tracking of time-evolving data streams and an application to short-term urban traffic flow forecasting*, Univ. Genoa, 2013-2018.
- Hassan Mahmoud, *Semantic clustering and community detection in biological networks*, Univ. Genoa, 2011-2014.
- Maurizio Filippone, *Central Clustering in Kernel-Induced Spaces*, Univ. Genoa, 2004-2007.
- Giorgio Valentini, *Ensemble methods based on bias-variance analysis*, Univ. Genoa, 2000–2003.
- Anna Maria Massone, *Applications of Clustering Methods to Physics*, Univ. Genoa and Univ. Lausanne, 1999–2002.

Other students supervised:

- UNIGE graduated fellowship, Davide Daffonchio, 2020.
- INFN graduated fellowship, Paolo Levorato, Grant Ansaldo, 1999-2000.
- INFN graduated fellowship, Alessio Pelle, Grant Ansaldo, 1999.
- INFN graduated fellowship, Pierluigi Mazzilli, Grant TELEMA, 1996.
- Commet (UE programme) graduated fellowship, Montserrat Garcia (Univ. Zaragoza, Spain), Handwriting recognition using neural networks, 1993.
- 40 Master Theses.

Membership to scientific Institutions:

- Sbarro Health Research Organization (SHRO) - International Prostate Cancer Core Group of SHRO (Philadelphia PA USA), 2008-continuing.
- Member, Italian Consortium for Physics of Matter (CNISM), 2006-continuing.
- Member, Italian National Institute for Physics of Matter (INFN), 1991-2005
- Member, Italian National Inter-Universities Consortium for Computer Science (CINI), 1999-continuing.
- Member, Italian National Institute of Advanced Mathematics Francesco Severi (INDAM), 2000-continuing.

Organizational Tasks:

- Member of the Joint Commission of the School of Sciences- University of Genoa (Italy), 2019- 2022.
- Member of the Board of Directors of the Library Center of the School of Mathematical Sciences, 2017-2022.
- Member of the board of the Center for Simulation, University of Genoa (Italy), 2016-2020.
- Coordinator of the Specialization Program for School Teachers in Computer Science (TFA 042) at University of Genoa (Italy), 2013- 2015.
- Coordinator of the research unit of Genoa of the CINI National Laboratory INFOLIFE (Formal and Algorithmic Methods for Life Sciences).
- Member of the Board of the PhD Program in Computer Science and Engineering of the University of Genoa (Italy).

Scientific Societies:

- Life Senior Member IEEE 2023-continuing.
- Chair elected of the IEEE Italy Section Computational Intelligence Society Chapter (2017--2023).
- Vice-Chair elected of the IEEE Italy Section Computational Intelligence Society Chapter (2013-2017).
- Chair Task Force on Neural Networks in Bioinformatics of the Bioinformatics and Bioengineering Technical Committee - IEEE-CIS (IEEE Computational Intelligence Society), 2009-continuing.
- Vice-Chair of Bioinformatics and Bioengineering Technical Committee IEEE-CIS (IEEE Computational Intelligence Society), 2011-13.
- Founder and Co-chair Special Interest Group Bioinformatics and Intelligence of International Neural Network Society (INNS), 2006-continuing.
- Senior member IEEE.
- Founding Member, Italian Chapter of Computational Intelligence Society (IEEE-CIS), 1996-continuing.
- Board Member, Special Interest Group Italy of International Neural Network Society (INNS), 1996-continuing.
- Member, Board of directors, Italian Society for Neural Networks Society (SIREN), term 2000-2004.
- Member, Board of directors, International Graphonomics Society (IGS), term 1994-1999.
- Member, Berkeley Initiative on Soft Computing (BISC), Berkeley, CA, 1992-continuing.
- Member, International Working Group on Soft Computing in Image Processing (SCIP), 2002-2007.

Journals:

- Associate editor, *International Journal of Knowledge Engineering and Soft Data Paradigms*, 2008 - continuing.
- Associate editor, *International Journal of Reasoning-based Intelligent Systems*, 2007 - continuing.
- Associate editor, *International Journal on Intelligent Decision Technologies*, IOS Press, 2007-2010.
- Associate editor, *Source Code for Biology and Medicine*, Biomed Central, 2006-continuing.
- Associate editor, *Intelligent Automation and Soft Computing*, 1994-continuing.
- Associate editor, *International Journal of Knowledge - Based Intelligent Engineering Systems*, 2000.
- Member, Advisory Board, *The Open Medical Informatics Journal*, Bentham Science Publishers, 2007- continuing.
- Member, Advisory Board, *International Series on Advanced Intelligence* (book series), Advanced Knowledge International Pty Ltd, Adelaide, Australia, 2004-continuing.
- Guest editor of special issues of Intelligent Automation and Soft Computing, International Journal of Knowledge Based Intelligent Engineering Systems, International Journal of Approximate Reasoning, Information Fusion, Artificial Intelligence in Medicine.
- Editor of parts D (III) Modeling Regulatory Networks, E (IV) Bioinformatics

Databases and Ontologies, F (V) Bioinformatics in Medicine, Health and Ecology, K (X) Information Modeling Brain Diseases of the Springer Handbook of Bio- and Neuroinformatics (2013), Principal Editor N. Kasabov..

Reviewer for:

- Artificial Intelligence in Engineering;
- Artificial Intelligence in Medicine;
- Computacion y Sistemas -Ibero-American Journal of Computing;
- Computer Journal;
- Engineering Intelligent Systems;
- Fuzzy Sets and Systems;
- IEEE Transactions on Fuzzy Systems;
- IEEE Transactions on Knowledge and Data Engineering;
- IEEE Transactions on Systems Man and Cybernetics;
- IEEE Transactions on Neural Networks;
- IEEE Transactions on Signal Processing;
- IEEE Internet Computing;
- Industrial and Engineering Chemistry Research;
- Information Science;
- Information Fusion Journal;
- Intelligent Automation and Soft Computing;
- Intelligent Data Analysis;
- International Journal of Computer Science & Applications;
- International Journal of Machine Learning Research;
- International Journal of Pattern Recognition and Artificial Intelligence;
- International Journal of Knowledge Based Intelligent Engineering Systems;
- International Journal of Knowledge Engineering and Soft Data Paradigms;
- Knowledge and Information Systems;
- Natural Hazards;
- Neural Computing and Applications;
- Neurocomputing;
- Neural Processing Letters;
- Open Medical Informatics Journal;
- Optical Engineering;
- Pattern Recognition;
- Soft Computing;
- Stochastic Environmental Research and Risk Assessment.

Editor of conference proceedings and article collections.

Conference and Post-Doctoral School Organization:

- Founding Member, Steering committee of International Workshop on Fuzzy Logic and Applications (WILF), 1995-continuing.
- Founding Member, Steering committee of International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics (CIBB), 2004-continuing.
- Member of the International Advisory Committee of the International Conference on Reliability, Infocom Technology and Optimization (ICRITO), 2016-continuing.
- Member of the Advisory Board of International Conference on Intelligent Systems

- for Human Machine Collaboration (ICISHMC'21)
- Member of the Advisory Board / Steering Committee International Conference on Big Data Analytics & Computation Intelligence, 2016-continuing.
 - Steering Committee member for IEEE IC3I & iCATccT Conference
 - Steering Committee member for ICBDACI-International Conference on Big Data Analytics and Computational Intelligence, 2016-continuing.
 - Steering Committee member for IC3TSN First International Conference on Computing and Communication Technologies for Smart Nation, 2016-continuing.
 - National School on Neural Networks on Biomedicine of the Italian Society of Biomedical Physics (15-19 Nov, 1993 Como, Italy) (Co-Chair).
 - Italian Workshop on Fuzzy Logic (21-22 Sept 1995 Naples, Italy) (Co-Chair).
 - 8th Conference of the International Graphonomics Society IGS1997 (Genoa, Italy Aug 24-28, 1997) (Chair).
 - SOCO97 - ICSC International Symposium on Soft Computing (Nimes- France, Sept. 17-19, 1997) (Vice-Chair).
 - SOCO 1999 - International Symposium on Soft Computing (Genoa, Italy June 1-4, 1999) (Chair).
 - Italian Workshop on Fuzzy Logic WILF99 (28-29 Jun 1999 Genoa, Italy) (Co-Chair).
 - Italian Workshop on Fuzzy Logic Workshop WILF01 (4-5 Oct 2001 Milan, Italy) (Co-Chair).
 - Post-Doctoral Course of International School on Neural Networks, E. R. Caianiello on Ensemble Methods in learning Machines (Vietri sul Mare-Salerno, Italy Sept 22 - Oct 1, 2002) (Co-Chair).
 - International Workshop on Fuzzy Logic and Applications WILF03 (9-11 Ottobre 2003 Napoli) (Co-Chair).
 - CIBB 2004, International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics (Perugia, Italy, Sept. 14-15, 2004) (Co-Chair).
 - CI-BIO, Post-IJCNN 2005 Workshop on Computational Intelligence Approaches for the Analysis of Bioinformatics Data (Montreal, Quebec, Canada, Aug 5, 2005) (Co-Chair).
 - CIBB 2005, Second International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics (Crema, Italy, Sept 15-17, 2005) (Co-Chair).
 - CIBB 2006, Third International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics, Genoa, Italy, August 29-31, 2006 (Co-Chair).
 - International Workshop on Fuzzy Logic and Applications WILF07 (7-10 Jul 2007, Camogli, Italy) (Co-Chair).
 - CI-BIO 2007, Post-IJCNN 2007 Workshop on Computational Intelligence Approaches for the Analysis of Bioinformatics Data (Orlando, FL, August 17, 2007) (Co-Chair).
 - CIBB 2008, Fifth International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics (3-4 Oct, 2008 Vietri sul Mare – Salerno, Italy) (Co-Chair).
 - BITS 2009, Annual Meeting of the Italian Bioinformatics Society (18-20 Mar 2009, Genoa, Italy) (Co-Chair).
 - CIBB 2009, Sixth International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics (Genoa, Italy 15-17 Oct 2009) (Co-Chair).
 - Post-Doctoral Course of the International School on Neural Networks, E. R. Caianiello on “Computational Intelligence Methods for Data Analysis in Oncology Bioinformatics” (CIOB) (Vietri sul Mare - Salerno, Italy 24-29 May 2010) (Chair).
 - CIBB 2010 Seventh International Meeting on Computational Intelligence Methods

- for Bioinformatics and Biostatistics, Palermo, Sept. 16-19, 2010. (Technical Co-Chair - Bioinformatics)
- CIBCB 2010 - IEEE-CIS Computational Intelligence in Bioinformatics and Computational Biology (Montreal, Canada, 2-5 May 2010) (Technical Co-Chair - Neural Networks)
 - CHDD 2012, International Workshop on Clustering High-Dimensional Data (May 15th, 2012, Naples, Italy) (Co-Chair).
 - CIBB 2012, Ninth International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics, Houston Texas, USA, July 12-14, 2012 (Co-Chair).
 - ICANN 2012, International Conference on Artificial Neural Networks, 11-14 September 2012 Lausanne, Switzerland (Program Co-Chair).
 - WILF 2013, 10th International Workshop on Fuzzy Logic and Applications, 19-22 November, 2013, Genoa (Italy) (Co-Chair).
 - CIBCB 2014 - IEEE-CIS Computational Intelligence in Bioinformatics and Computational Biology, 21-24 May, 2014, Honolulu, Hawaii, USA (Technical Co-Chair – Special Approaches).
 - DeepLearn 2018 - 2nd International Summer School on Deep Learning, 23-27 Jul 2018, Genoa, Italy (Co-Chair), c.a. 1000 registered participants.
 - SETIT 2018 , The Conference on the Sciences of Electronics, Technologies of Information and Telecommunications, Hammamet, Tunisia, 18-20 Dec 2018 (Scientific Committee Co-Chair)
 - WILF 2018 - Twelfth International Workshop on Fuzzy Logic and Applications, Genoa (Italy), 6-7 Sep 2018 (Co-Chair).
 - ICAIH 2019 - ICAIH 2019 - First Industrial Conference on Artificial Intelligence and Health, Milano (Italy) 13-14 Nov 2019 (Co-Chair).
 - IEEE RTSI 2020 - International IEEE Forum on Research and Technologies for Society and Industry – Innovation for a smart world -6–9 Sept. 2021, Naples, Italy (Co-Chair TRACK 3: Smart Community).
 - EUSFLAT 2021 - 8th conference of the European Society for Fuzzy Logic and Technology, 19-24 Sept 2021, Bratislava, Slovakia (Co-Chair Track Area 12: Data analysis: clustering, associations mining, classification).
 - IEEE MELECON 2022 - IEEE MEDITERRANEAN ELETROTECHNICAL CONFERENCE 2022, 14-16 Jun 2022, Palermo, Italy (Co-Chair Track 4: SMART DIGITAL COMMUNITIES).
 - SETIT 2022 - Conference on the Sciences of Electronics, Technologies of Information and Telecommunications - 19-21 March 2022, Genoa, Italy and Hammamet, Tunisia (Co-Chair Technical Program Committee).
 - WCCI 2022 - IEEE WORLD CONGRESS ON COMPUTATIONAL INTELLIGENCE - 18-23 Jul 2022, Padua, Italy (Financial Chair).
 - ICOA2022 - 8th EDITION of the INTERNATIONAL CONFERENCE on OPTIMIZATION and APPLICATIONS, 6-7 Oct 2022, Sestri Levante, Italy (Co-Chair).

Special Session Organization

- Workshop Soft-Computing Methods in Pattern Recognition at SOCO96 International ICSC Symposium on Soft Computing (26-28 March, 1996 Reading, U. K.) (Co-Chair).
- Invited Session on Forecasting Chaotic Time Series at Soft Computing, SPIE (San Diego, CA, Jul 1997) (Co-Chair).

- Invited Session on Soft Computing Technologies for Pattern Recognition, at KES2000 Fourth Int. Conf. on Knowledge-Based Intelligent Engineering Systems & Allied Technologies (Brighthelm, UK, 30 Aug-1 Sept 2000) (Co-Chair).
- Special Session on Bioinformatics at IJCNN03, International Joint Conference on Neural Networks (Portland, Oregon, July 20-24, 2003) (Co-Chair).
- Special Session su Bioinformatics and Biomedical Computing alla IJCNN04, 2004 International Joint Conference on Neural Networks (Budapest, Hungary, July 25-29, 2004) (Co-Chair).
- Special Session su Neural Networks applications to Bioinformatics alla IJCNN05 International Joint Conference on Neural Networks (Montreal, Quebec, Canada July 31-August 4, 2005) (Co-Chair).
- Special Session on Neural Networks applications to Bioinformatics at IJCNN-WCCI 2006, International Joint Conference on Neural Networks (Vancouver, BC, Canada, July 16-21, 2006) (Co-Chair).
- Special Session on Analysis of High Dimensional Data in Bioinformatics at IJCNN-WCCI 2008, International Joint Conference on Neural Networks (Hong Kong, June 1-6, 2008) (Co-Chair).
- Special Session on Soft Computing tools for Bioinformatics alla IJCNN 2009, International Joint Conference on Neural Networks (Atlanta, Georgia, USA, June 14-19, 2009) (Co-Chair).
- Special Sessions on Computational Intelligence in Bioinformatics, Computational Biology, and Bioengineering i, ii, iii, IEEE World Congress on Computational Intelligence (Barcelona, Spain, 18-23 Jul, 2010) (Co-Chair).
- Special Session su Bioinformatics and Computational Intelligence, at ICANN 2012 International Conference on Artificial Neural Networks, 11-14 September 2012 Lausanne, Switzerland (Co-Chair).
- Co-Chair - Special Session on THEME 2.3 - ARTIFICIAL INTELLIGENCE AND BIG DATA ANALYTICS, IEEE MEDITERRANEAN ELECTROTECHNICAL CONFERENCE 2020 - IEEE MELECON 2020, 16-18 Jun 2020, Palermo, Italy.

Member of TC of Conferences/Advanced Schools:

- Italian Workshop on Neural Networks (WIRN), 1995-continuing.
- International Symposium on Fuzzy Logic (ISFL), 1995, 1997.
- Applications of Fuzzy Logic Technology III SPIE, 1996.
- International Symposium on Soft Computing (SOCO), 1996, 2001.
- International Symposium on Intelligent Industrial Automation (IIA), 1996.
- Turkish Symposium on Artificial Intelligence and Neural Networks (TAINN), 1996, 1999, 2000, 2001, 2002, 2003.
- International Workshop CIFT/MEPP96 Joint Conference - Current Issues on Fuzzy Technologies/ Methods and Environments for Planning and Programming, 1996.
- International Conference on Adaptive and Natural Computing Algorithms (formerly, International Conference on Artificial Neural Networks and Genetic Algorithms) (ICANNGA), 1997, 1999, 2001, 2003, 2005, 2007, 2009, 2011, 2012, 2013.
- Applications and Science of Neural Networks, Fuzzy Systems, and Evolutionary Computation II SPIE, 1999.
- International Conference on Neural Information Processing (ICONIP), 1999.
- Conference of the International Graphonomics Society (IGS), 1999, 2001.
- International Conference on Communication, 1999, 2001, 2002, 2003.

- World Conference on Communications, 2000.
- Conference on System, Modeling, and Control (SMC), 2001, 2005, 2007.
- International Conference on Computers and their Applications (CATA, ISCA), 2001.
- International Conference on Neural Networks and Expert Systems in Medicine and Healthcare (NNESMED), 2003.
- International Conference on Computational Intelligence in Medicine and Healthcare (CIMED), 2003.
- International Symposium on Information and Communication Technologies (ISICT), 2003.
- International Joint Conference on Neural Networks (IJCNN), 2004, 2010, 2011, 2013.
- Work-Conference on Artificial Neural Networks (IWANN), 2005, 2009, 2011, 2013.
- International Conference on Sciences of Electronics, Technologies of Information and Telecommunications (SETIT), 2005, 2007, 2009, 2012, 2013.
- Indian International Conference on Artificial Intelligence (IICAI), 2005, 2009.
- Indian International Conference on Artificial Intelligence (IICAI) - Special Session on Natural Language Processing for information Retrieval, 2005.
- International Conference on Machine Intelligence (IACIDCA-ICMI), 2005.
- International Conference on Knowledge-Based Intelligent Information & Engineering Systems (KES), 2005, 2006, 2007, 2008.
- International Symposium on Soft Computing for Industry (ISSCI) - World Automation Congress, 2006, 2008.
- International Conference on Advances in Medical, Signal and Information Processing (MEDSIP), 2006, 2008.
- International Conference on Neural Networks and Associative Memories (NNAM), 2006, 2007.
- Indian International Conference on Artificial Intelligence (ICAI), 2007.
- IEEE Symposium on Foundations of Computational Intelligence, (FOCI), 2007, 2011.
- Soft Computing and Its Applications (ISCIA), 2007.
- International Work-Conference on Artificial Neural Networks (IWANN), 2007.
- Workshop on Intelligent Soft Computing Approaches to Multimedia Processing (ISCAMP), 2007, 2008.
- Workshop on Machine Learning in Biomedicine and Bioinformatics (MLBB), 2007.
- Natural Language-Independent Engineering Workshop (NLIE), 2007.
- Workshop on Supervised and Unsupervised Ensemble Methods and Their Applications (SUEMA), 2007, 2008, 2010.
- International Conference on Applied Operational Research (ICAOR), 2008.
- Special Session on Application of Machine Learning in Constructing Biopatterns and Analyzing Bioprofile at Seventh International Conference on Machine Learning and Applications (ICMLA), 2008.
- International Conference on Machine Learning and Applications (ICMLA), 2008, 2010, 2011.
- IEEE International Conference on Data Mining (ICDM), 2008, 2010.
- IEEE World Congress on Computational Intelligence (WCCI), 2008.
- Workshop on Scheduling in Healthcare Systems (SCHEALS), 2008.
- Network Tools and Applications in Biology (NETTAB), 2008.
- International Conference on Signal Processing, Image Processing and Pattern Recognition (SIP), 2008, 2009, 2011.
- 7th Mexican International Conference on Artificial Intelligence (MICAI), 2008, 2009.

- International Workshop on Computational Social Networks (IWCSN), 2008.
- International Conference of E-Medical Systems (E-MEDISYS), 2008, 2010.
- Track on Data Bases and Bioinformatics - International Conference on Information Technology (ICIT) 2008.
- 20th IEEE Int'l Conference on Tools with Artificial Intelligence (ICTAI) 2008.
- Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD-09), 2009.
- Logic-based approaches in Bioinformatics (BIO-LOGICAL), Satellite workshop of the AI*IA 2009.
- Diagnosis, Prognosis, and Survival Analysis with Biopatterns using Machine Learning Methods, special session at ICMLA, 2009.
- International Conference on Fuzzy Computation (ICFC), 2009.
- Learning and Intelligent OptimizatiON (LION), 2009, 2010, 2011, 2013.
- Machine learning and intelligent optimization in Bioinformatics (MALIOB), 2009.
- International Conference on Information Technology (INTL-INFOTECH), 2009.
- Ninth International Conference on Intelligent Systems Design and Applications (SDA'09), 2009.
- International Conference on Pattern Recognition in Bioinformatics (PRIB) 2009, 2010, 2011, 2012, 2013.
- International Workshop on Computer Graphics, Multimedia and Security (CGMS), 2009.
- International Forum on Multimedia and Image Processing (IFMIP), 2010.
- Recent Advances in Mathematics, Technology and Management, 2010.
- 6th International Conference on Natural Computation and 7th International Conference on Fuzzy Systems and Knowledge Discovery (ICNC-FSKD), 2010.
- Tenth International Conference on Intelligent Systems Design and Applications (ISDA'10).
- 20th International Conference on Pattern Recognition (ICPR), 2010, 2012.
- IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), 2011, 2013
- Fifth International Conference on Complex, Intelligent, and Software Intensive Systems (CISIS), 2011.
- International Conference on Pattern Recognition and Machine Intelligence (PreMI), 2011.
- International Conference on Computer Convergence Technology (ICCCT), 2011.
- International Conference on Bioinformatics Models, Methods and Algorithms 9 (BIOINFORMATICS), 2011, 2013.
- Fourth International Conference on Contemporary Computing conference (JIIT), 2011.
- IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB), 2012, 2013.
- 9th International Symposium on Neural Networks (ISNN), 2012.
- 7th International Conference on Soft Computing Models in Industrial and Environmental Applications (SOCO), 2012.
- The 2nd International Conference on Advanced Signal Processing (ASP), 2013.
- 17th International Conference on Image Analysis and Processing (ICIAP), 2013.
- 9th International Conference on Natural Computation (ICNC), 2013.
- 10th International Conference on Fuzzy Systems and Knowledge Discovery (FSKD), 2013.153. Aciids 2014 - 6th Asian Conference on Intelligent Information and Database Systems (7-9 Apr 2014, Bangkok, Thailand).

- FUZZ-IEEE 2014 - IEEE International Conference on Fuzzy Systems (06-11 Jul 2014, Beijing, China).
- JCNN 2014 International Joint Conference on Neural Networks (06-11 Jul 2014, Beijing, China).
- WIRN 2014 - 24th Italian Workshop on Neural Networks(15-16 May , Vietri sul Mare, Salerno).
- Aciids 2015 - 7th Asian Conference on Intelligent Information and Database Systems (23-25 Mar 2015, Bali, Indonesia).
- LION 9 - Learning and Intelligent Optimization Conference (12-16 Jan 2015, Lille, FRANCE)
- IEEE CEC - IEEE Congress on Evolutionary Computation (25-28 May 2015, Senday, Japan)
- PReMI 2015 6th International Conference on Pattern Recognition and Machine Intelligence 2015 (June 30 - July 3 2015, Warsaw, Poland).
- IWANN 2015 - Work-Conference on Artificial Neural Networks (10-12 June 2015, Palma de Maiorca, Spain);
- 162. IJCNN 2015 - International Joint Conference on Neural Networks (12-17 Jun 2015, Killarney, Irland).
- DSAA 2015 - IEEE International Conference on Data Science and Advanced Analytics (19-21 Oct, Paris, France).
- INISTA 2015- IEEE International Symposium on Innovations in Intelligent Systems and Applications (2-4 Sept 2015, Madrid, Spain).
- CIBB 2015 - International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics (10-12 Sept 2015, Napoli).
- IEEE SSCI 2015 - IEEE Symposium Series on Computational Intelligence (7-10 Dec. 2015, Cape Town, South Africa).
- International Conference on Reliability, Infocom Technology and Optimization (ICRITO), 2016.Africa).
- International Conference on Reliability, Infocom Technology and Optimization (ICRITO), 2016.
- Aciids 2016 - 8th Asian Conference on Intelligent Information and Database Systems (14-16 March 2016, Da Nang, Vietnam).
- BigDataSE 2016 - 10th IEEE International Conference on Big Data Science and Engineering (23-26 Aug 2016 Tianjin, China).
- CIBB 2016 - International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics (1-3 Sept 2016, Stirling, UK).
- DSAA2016 - IEEE International Conference on Data Science and Advanced Analytics (17-19 Oct 2016 Montreal, Canada).
- ICANN 2016 - 25th International Conference on Artificial Neural Networks (6-9 Sept 2016, Barcelona, Spain).
- ICMLA 2016 - 15th International Conference on Machine Learning and Applications (18-20 Dec 2016, Anaheim, California, USA).
- ICNC-FSKD 2016 - 12th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (13-15 Aug 2016 Changsha, China).
- ICPR 2016 - 23rd International Conference on Pattern Recognition (4-8 Dec 2016 Cancun, Mexico).
- WCCI 2016 - IEEE World Congress on Computational Intelligence (25-27 Jul 2016 Vancouver, Canada).
- RTSI 2016 - 2nd International Forum on Research and Technologies for Society and Industry (7-9 Sep. 2016 Bologna, Italy).

- SETIT 2016 - International Conference: Sciences of Electronics, Technologies of Information and Telecom- munications (18-20 Dec 2016 Yasmine Hammamet, Tunisia).
- Aciids 2017 - 10th Asian Conference on Intelligent Information and Database Systems (3-5 April 2017, Kanazawa, Japan).
- IJCNN 2017 - International Joint Conference on Neural Networks (14-19 May 2017 Anchorage, Alaska, USA).
- Innovate-Data 2017 - The 3rd International Conference on Big Data Innovations and Applications (21-23 Aug 2017 Prague, Czech Republic).
- ICIC 2017 - International Conference on Intelligent Computing (7-10 Aug 2017 Liverpool,UK).
- DSAA2017 The 4th IEEE International Conference on Data Science and Advanced Analytics (19-21 Oct 2017, Tokyo, Japan).
- ICANN 2017 - 26th International Conference on Artificial Neural Networks (11-14 Sep, Alghero, Italy).
- ICIC 2017 - International Conference on Information and Communications 2017 (26-27 Jun 2017, Hanoi, Vietnam).
- IEEE ICMLA 2017 - 16th IEEE International Conference on Machine Learning and Applications (18-21 Dec 18-21, Cancun, Mexico).
- ICNC-FSKD 2017 -13th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (29-31 Jul 2017, Guilin, China).
- ISTA'17 - International Symposium on Intelligent Systems Technologies and Applications (13-16 Sep 2017, Manipal, Karnataka, India).189. PReMI'17 - International Conference on Pattern Recognition and Machine Intelligence (5-8 Dec 2017, Kolkata, India).
- RTSI 2017 - 3 International Forum on Research and Technologies for Society and Industry (11-13 Sep 2017, Modena, Italy).
- ICAISC 2017 - International Conference on Artificial Intelligence and Soft Computing (3-7 Jun 2018, Zaczopane, Poland).
- CN 2018 - 25th International Conference on Computer Networks (19-22 Jun 2018, Gliwice, Poland).
- IJCNN 2018 - 2018 International Joint Conference on Neural Networks (3-13 Jul 2018, Rio de Janeiro, Brazil).
- ICNC-FSKD 2018 -T 14th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (28-30 Jul, Huangshan, China).
- WIVACE 2018 - Workshop on Artificial Life and Evolutionary Computation (10-12 Sep 2018, Parma, Italy).
- BDE 2019 - 2nd International Conference on Big Data Engineering (11-13 Jun, Hong Kong, China).
- ICETIT 2019 - 1st International Conference on Emerging Trends in Information Technology (21-22 Jun, New Delhi, India).
- IJCNN 2019 - 2019 International Joint Conference on Neural Networks (14-19 Jul 2019, Budapest, Hungary).
- ISBRA 2019 - 15th International Symposium on Bioinformatics Research and Applications (3-6 June, 2019, Barcelona, Spain).
- PReMI'19 - International Conference on Pattern Recognition and Machine Intelligence (17/20 Dec 2019, Tezpur, India).
- IEEE EAIS 2020 - IEEE Conference on Evolving and Adaptive Intelligent Systems (27-29 May 2020, Bari, Italy).
- FUZZ-IEEE 2020 - IEEE International Conference on Fuzzy Systems (19-24 July

- 2020, Glasgow - UK).
- CHMS 2020 : IEEE International Conference on Human-Machine Systems (6-8 Apr 2020, Rome - Italy).
- ICOA2020 - International Conference on Optimization and Applications (20-21 April 2020, Beni Mellal, Morocco).
- IJCNN 2020 - International Joint Conference on Neural Networks (19-24 July 2020, Glasgow - UK).
- ICAISC 2020 - International Conference on Artificial Intelligence and Soft Computing (16-20 June 2020, Zakopane, PL).
- ICICPS 2020 - International Conference on Innovations in Cyber Physical Systems (24-25 July 2020, on-line).
- Lion 2020 - Learning and Intelligent Optimization (24-28 May 2020, Athens - GR).
- IEEE MELECON 2020 - 20th IEEE Mediterranean Electrotechnical Conference (16-18 June 2020, Palermo, Italy).
- IC-IHAW 2021 -ICT for Health, Accessibility and Wellbeing (8-9 Nov 2021, on-line).
- ICOA2021 - International Conference on Optimization and Applications (19-20May 19, 2021, Wolfenbuttel, Germany).
- IJCNN 2021 - International Joint Conference on Neural Networks (18-22 July 2021, Shenzhen, China).
- RTSI 2021 -International Forum on Research and Technologies for Society and Industry (6–9 Sept. 2021, on-line).
- WILF 2021 -International Workshop on Fuzzy Logic and Applications (December 20–22, 2021, Vietri sul Mare, Italy).
- IEEE MELECON 2022 - IEEE Mediterranean Electrotechnical Conference (14-16 June 2022, Palermo, Italy).
- IEEE SETIT 2022 - IEEE 9th International Conference on Sciences of Electronics, Technologies of Information and Telecommunications (28-30 May 2022 , Sfax, Tunisia).
- WCCI2022 – The IEEE World Congress on Computational Intelligenc (18-23 July 2022, Padua, Italy).
- ZIRP 2022 - International Conference "The Science and Development of Transport (28-30 Sep 2022, Sibenik, Croatia).
- 219. ICOA2023 - International Conference on Optimization and Applications (5-6 Oct 2023, Abu Dhabi, UAE).
- 220. IJCNN 2023 - International Joint Conference on Neural Networks (18 - 23 Jun 2023, Queensland, Australia).
- PReMI'23 - International Conference on Pattern Recognition and Machine Intelligence (12-15 Dec 2023, Kolkata, India).

Funding Agencies Advising:

- Evaluator of projects for the call "Pride" of the Luxembourg National Research Fund, 2020.
- Evaluator POR FESR Region Veneto 2014-2020. Azione 1.1.1. DGR n. 805/2019. Support research projects that involve the employment of researchers.
- Evaluator of projects for the Region of Valle d'Aosta (Italy) Bando Unità di ricerca di

- cui alla DGR 1.4.30.6 - in the term 2018-2019.
- Evaluator of projects for the call “Core” of the Luxembourg National Research Fund, 2018.
- Evaluator of projects for the call “Pride” of the Luxembourg National Research Fund, 2017.
- Evaluator of projects for the call “Sonata Bis” of the Polish National Science Centre, 2017.
- Evaluator of projects for the call “Futuro in Ricerca 2013” of the Italian Ministry of Research.
- Evaluator of projects for the call PRIN 2012 of the Italian Ministry of Research.
- Member of the Technical Committee of the Region of Valle d'Aosta (Italy) for the evaluation of research projects in the term 2013-2015.
- Evaluator of the “Development of Centers of Excellence in Research” program for period 2008 – 2015 of the government of Estonia (the evaluators where 28, selected from 344 applicants) and participant to the evaluation committee meeting on May 20 - 23, 2008 in Tallinn.
- Evaluator for *SEE-ERA.NET Pilot Joint Call for Research and Thematic Network Projects as well as Summer Schools in/with the Western Balkan Region*, 2007.
- Evaluator for International Association for the promotion of co-operation with scientists from the New Independent States of the former Soviet Union (*INTAS*) research proposals on 2000, 2003, 2004, 2005, 2006.

Committee Assignments:

- Member, Faculty Recruiting a new assistant professor, Univ. Palermo (Italy), 2021.
- Member, Faculty Recruiting a new assistant professor, Univ. Naples Parthenope (Italy), 2021.
- Member, Faculty Recruiting a new assistant professor, Univ. Salerno (Italy), 2021.
- Member, Faculty Recruiting a new associate professor, Univ. Naples Parthenope (Italy), 2019.
- Member, Faculty Recruiting a new assistant professor, Univ. Milano-Bicocca (Italy), 2019.
- Member, Faculty Recruiting a new associate professor, Univ. Naples Parthenope (Italy), 2017.
- External Evaluator for a Full Professor promotion, University of Haifa, (Israel), 2017.
- Member, Faculty Recruiting a new assistant professor, Univ. Pisa (Italy), 2014.
- Member, Committee for admission to Master studies in Computer Science, Univ. Genoa (Italy), 2010, 2011, 2012, 2013.
- Member, Committee for admission to PhD studies in Computer Science, Univ. Genoa (Italy), 2008, 2010.
- External evaluator for an appointment as Post Doc for the Department of Medical Genetics, University of British Columbia, Vancouver BC, Canada in 2010.
- External evaluator for an appointment as an Associate Professor of Public Health for the Weill Cornell Medical College, New York, NY, USA in 2008.
- Member, Faculty Recruiting a new assistant professor, Univ. Naples *Parthenope* (Italy), 2008.
- External evaluator for an appointment as an Associate Member for The Methodist Hospital Research Institute Houston, TX, USA in 2007.
- Member, Faculty Recruiting a new assistant professor, Univ. Naples *Parthenope* (Italy), 2005.

- Member, Faculty Recruiting a new associate professor, Univ. Padova (Italy), 2005.
- Member, Faculty Recruiting a new assistant professor, Univ. Milan (Italy), 2001.
- Member, Executive board, Dept. Physics, Univ. Genoa (Italy), 1995-1998.
- Member, Committee for Student admission to Computer Science courses, Univ. Genoa (Italy), 1987, 1988.

Grants, Contracts, Agreements, and Gifts:

- Erasmus+ KA2 - Capacity Building "Developing Curricula for Artificial Intelligence and Robotics (DeCAIR)" 2021-2024, 90 Keur.
- Grant EU, European Regional Development Fund and Regione Liguria, Prosol – *Senior ALCOTRA*, 2020-2022, 70KEur.
- Grant University of Genoa: *XPERT - ITACA eXperimentation Platform for the succEssful adoption of disRruptive Technologies in public services: Intelligent TrAffic ForeCAster*, 2019-2021, 50Keur.
- ERASMUS+ 2017/20121 with University of Bradford (UK) - 5KEur
- Grant DIBRIS, University of Genoa (Italy) for WILF 2018, 2 Keur.
- Grant DIBRIS, University of Genoa (Italy) for DeepLearn 2018, 2 Keur.
- Cost Action IC1406, *High-Performance Modelling and Simulation for Big Data Applications (cHiPSet)* (membership)
- Grant Italian National Institute of Advanced Mathematics Francesco Severi (INDAM) for short term visiting researcher, 2017, 2 KEur.
- Grant EU, European Regional Development Fund and Regione Liguria, *IANUS – Integrated AssistaNce on Unguarded Systems*, 2013-2015, 90 KEur
- Grant Italian Government MIE, *Sustainable Smart Mobility*, 2014-2016, 12 KEur
- Grant Italian Government and Regione Liguria, *SIIT Project PLUG-IN Platform for Urban Mobility with Heterogeneous Sources Information Management*, 2013-2015, 70Keur.
- Erasmus Programme Teaching Staff Mobility Assignment (STA) a.y., 2013, 2 KEur.
- Grant DIBRIS, University of Genoa (Italy) for WILF 2013, 2 Keur.
- Grant Regione Liguria *Remote monitoring for health, safety, quality of life and assisted independence of older and fragile people*, 2012-2015, 40KEur.
- Grant Italian National Institute of Advanced Mathematics Francesco Severi (INDAM) *Clustering high dimensionality data*, 4.5Keur.
- Grant Ospedali Galliera-Genova (Italy) *Machine learning methods applied to an experiment in "Ambient Assisted Living" at the Special Unit for dementia of the RSA Galliera*, 2011-2013, 20KEur.
- Grant Italian National Institute of Advanced Mathematics Francesco Severi (INDAM) for short term visiting researcher, 2011, 1.5 KEur.
- Grant Human Health Foundation Onlus Spoleto-PG (Italy) *Predictive algorithms for MicroRNA target genes in cancer*, 2010, 16 KEur.
- Agreement of scientific cooperation between DISI-Univ. of Genoa and Human Health Foundation Onlus, Spoleto-PG (Italy) Years 2010-2011.
- Grant Italian Ministry of Education, University and Research, *Fellowship for an Indian young researcher*, 2009, 15 KEur.
- Grant Italian National Institute of Advanced Mathematics Francesco Severi (INDAM) for CIBB 2009, 1 KEur.
- Grant DISI, University of Genoa (Italy) for CIBB 2009, 1 KEur.
- Grant DMI, University of Salerno (Italy) for CIBB 2009, 1 KEur.
- Grant University of Genoa, basic research, 2008, 800 Eur.
- Grant University of Genoa, partial support to a 2 years Post-Doc position on

- Predictive algorithms for MicroRNA target genes in cancer*, 2008, 22 KEur.
- Grant Human Health Foundation Onlus Spoleto (PG, Italy) *Predictive algorithms for MicroRNA target genes in cancer*, 2008, 10.69 KEur.
 - Grant National Institute of Advanced Mathematics Francesco Severi (INDAM) for a *visit of Prof. Giuseppe Russo from Philadelphia (PA-USA)* 2008, 1.05 KEur.
 - Grant Italian National Institute of Advanced Mathematics Francesco Severi (INDAM) for WILF 2007, 2.4 KEur.
 - Grant Italian National Institute of Advanced Mathematics Francesco Severi (INDAM) for CIBB 2006, 1.8 KEur.
 - Grant ICT for EU-India Cross Cultural Dissemination, with Stefano Rovetta (PI), 2004-2006.
 - Grant PRIN (Italian Minister of Research) Novel clustering techniques in bio-medical image segmentation, with Prof. Stefano Rovetta (PI), 2004-2005.
 - Grant BIOPATTERN Network Of Excellence FP6 EU Programme, with Prof. Starita (P.I.) Univ. Pisa (2004-2007).
 - Grant Rating Univ. Pisa (basic research), 2004, 2.3 KEur.
 - Grant International Center for Theoretical Physics-Trieste (ICTP) *Programme Training and Research in Italian Laboratories*, 2003-2004, valued 22 KEur.
 - *International Workshop on Fuzzy Logic and Applications*, 2003, from Italian National Institute of Advanced Mathematics Francesco Severi (INDAM): 1.5 KEur.
 - Grant Rating Univ. Pisa (basic research), 2003, 1.75 KEur.
 - Grant National Institute for Physics of Matter (INFN) Linea G8 Genoa (basic research), 2003, 5 KEur.
 - Grant PRIN MIUR, *Machine learning tools for structural and functional Genomics*, 2002-2003, 19 KEur.
 - *Course of the International School on Neural Networks, E. R. Caianiello on Ensemble Methods in learning Machines*, 2002, from Elsag Co.: 1.5 KEur, Microsoft: 2.5 KEur; INDAM: 1.5 KEur.
 - Grant Rating Univ. Pisa (basic research), 2002, 1.25 KEur.
 - Grant INFN Linea G.8 (basic research), 2002, 15 KEur.
 - Grant Iniziativa di Sezione G INFN Cluster PC Pentium Linux, 2001, 15 KEur.
 - Grant Progetto Coordinato Italian National Council of Researches (CNR), *Computer methods based on fuzzy systems for the forecasting of hydrological variables*, 2000, 1.5 KEur.
 - Grant Progetto Coordinato CNR, *Interactive graphical system for medical image segmentation using a Soft Computing approach*, 2000, 2.5 KEur.
 - Grant INFN-Ansaldo Ricerche, *Technological support for industrial applications of Soft Computing*, 1998-2000, valued 20 KEur.
 - Grant Progetto Sud INFN TELEMA - *Remote sensing image interpretation for environment resources management*, with Prof. Massimo Riani, Dept. Physics Univ. Genoa, 1997-1998, 40 KEur.
 - Grant Progetto Avanzato Ricerca Sezione G INFN on *Global search in clustering*, 1999-2002, 30 KEur.
 - Grant Progetto Finalizzato MADESS 2 CNR, *Development of an electronic nose for food industry*, 1998-2001, 30 KEur.
 - 8th Conference of the International Graphonomics Society IGS, 1997, from CNR: 1 KEur.
 - Grant INFN- European Social Fund, *Training technicians on Informatics*, 1999-2000, 10 KEur.
 - Grant International Center for Theoretical Physics-Trieste (ICTP) Training and

- Research in Italian Laboratories Program, 1996-1997, valued 10 KEur.
- Node Univ. Genoa of ERUDIT (European Network in Uncertainty Techniques: Developments for Use in Information Technology, 'Network of Excellence'), 1995-1998.
- Node Univ. Genoa of NEuroNet (European Neural Networks, 'Network of Excellence'), 1994-1998.
- Agreement of scientific cooperation between Univ. of Genoa and Italian National Institute for Cancer Research on *Application of Neural Networks to biomedical data processing*, 1994-1997.
- *Advanced School on Neural Networks on Biomedicine*, 1993, from Fondazione IBM: 2 KEur; CNR: 1 KEur.
- Grants Univ. Genoa, MIUR, and INFN for basic research, with Prof. Massimo Riani (P.I), Dept. Physics Univ. Genoa, 1983-2001.

PhD thesis external reviewer/jury member:

- ANUPAMA H, COMPRESSIVE SENSING BASED IMAGE RECONSTRUCTION, VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI, INDIA, 2023;
- Sunita Samant, MUTUAL INFORMATION BASED CT AND MR IMAGE REGISTRATION, SIKSHA 'O' ANUSANDHAN (DEEMED TO BE UNIVERSITY), BHUBANESWAR, ODISHA, 2023;
- Mamata P. Wagh, *Granular Computing based Image Segmentation Under Uneven Lighting*, SIKSHA 'O' ANUSANDHAN, BHUBANESWAR, ODISHA (India), 2022;
- M S Maheshan, *Personal Authentication through Sclera Segmentation and Recognition*, JSS Science and Technology University Mysuru, Karnataka (India), 2021;
- Manju N, *Identification and Classification of Internet Traffic using Machine Learning Approaches*, Visvesvaraya Technological University Jnana Sangama, Belgaum (India), 2020;
- PK Sathish, *An Efficient Method for Person Re-identification in Video Sequences*, Visvesvaraya Technological University, Belagavi, Karnataka (India), 2019;
- Surekha Raju Gondkar, *Improvement of Transformation Techniques in digital image processing*, Visvesvaraya Technological University, Belagavi, Karnataka (India), 2019;
- Aruna Kumar S V, *Exploring Computational Intelligence Techniques to solve Image Analysis and Security Problems*, Visvesvaraya Technological University, Belagavi, Karnataka (India), 2018;
- Marco Notaro, *Hierarchical Ensemble Methods for Ontology-based Predictions in Computational Biology*, University Milano Statale, 2018;
- Giuseppa Sciortino, *Metodologie e tecniche per l'analisi di dati complessi in ambiente ecografico prenatale*, University of Palermo (Italy), 2015;
- Gabriele Milia, *Cloud based solutions supporting data and knowledge integration in Bioinformatics*, University of Cagliari (Italy), 2015;
- Wang Yangtao, *Incremental Clustering Methods and Their Application on Large Data Analysis*, Nanyang Technological University (Singapore), 2015;
- Mallikarjun Kodabagi, *Techniques for Web Service Based Hand Held System Useful in Understanding Display Boards*, Visvesvaraya Technological University, Belgaum (India), 2014;

- Alexander Apartsin, *Fusion of Biased Estimators Using Machine Learning for Time of Flight Estimation in the Presence of Outliers*, Tel Aviv University, Tel Aviv, Israel, 2013;
- Luca Ghelardoni, *A Machine Learning Approach for Long-Term Time Series Prediction in Smart-Grids*, University of Genoa, Italy, 2013;
- Alessio Leoncini, *Computational Intelligence-based Techniques for Cyber Security*, University of Genoa, Italy, 2013;
- Laura Maria Cannas, *A Framework for Feature Selection in High-dimensional Domains*, University of Cagliari, Italy, 2013;
- Michela Lai, *Models and algorithms for empty container repositioning and its integration with routing problems*, University of Cagliari, Italy, 2013;
- Tiziana Cimoli, *A Theory of Agreements and Protection*, University of Cagliari, Italy, 2013;
- Silvia Perra, *Objective Bayesian Variable Selection for Censored Data*, University of Cagliari, Italy, 2013;
- Mei Jianping, *Relation and Fuzzy Clustering for Document Characterization and Analysis*, Nanyang Technological University, Singapore, 2011;
- Chadan Koner, *An Investigation to Establish Record and AI Based User's and Server's Authentication under Mobile Communications*, Jadavpur University, Kolkata, India, 2011;
- Isabella Cattinelli, *Investigations on cognitive computation and computational cognition*, Univ. Milano, 2011;
- Alessandro Rozza, *Classifiers based on Approach to Estimate the Fisher Subspace and Their Applications*, Univ. Milano, 2011;
- Giovanni Battaglia, *Discovery of unconventional patterns for sequence analysis: theory and algorithms*, Univ. Pisa, 2011;
- Gabriele Capannini, *The Impact of Novel Computing Architectures on Large-Scale Distributed Web Information Retrieval Systems*, Univ. Pisa, 2011;
- Gabriele Costa, *On the Security of Software Systems and Services*, Univ. Pisa, 2011;
- Peter Drabik, *Modular Verification of Biological Systems*, Univ. Pisa, 2011;
- Claudio Gallicchio, *Reservoir Computing for Learning in Structured Domains*, Univ. Pisa, 2011;
- Emanuela Romano, *Some Topics in the Theory of Generalized FC-Groups*, Univ. Salerno, 2011;
- Giuseppe Maresca, *Le potenzialita' dell'e-learning nell'apprendimento della matematica*, Univ. Salerno, 2011;
- Ekaterina Nosova, *Multi-Biclustering Solutions for Classification and Prediction Problems*, Univ. Salerno, 2011;
- Anna Rita Ferraioli, *Lukaziewicz Logic: Algebras and Sheaves*, Univ. Salerno, 2011.
- Ferdinando Di Martino, *Fuzzy Logic Method for Image Processing and Data Analysis*, Univ. Salerno, 2010;
- Francesco Napolitano, *Fast Search in Chemical Databases using Tanimoto Similarity Bounds and Clustering Techniques*, Univ. Salerno, 2010;
- Ida Bifulco, *Optimization Methods for Inversion of Geophysical Models*, Univ. Salerno, 2010;
- Mario Vigliar, *Architectures and methodologies for multicore processing in scientific and industrial applications*, Univ. Salerno, 2010;
- Francesco Sbordone, *Efficient solution approaches for difficult problems in Telecommunication and Transportation Networks*, Univ. Salerno, 2010;

- Filippo Millonzi, *Evolutionary Algorithms for Discrete Tomography, Reconstruction and Symmetry Retrieval*, Univ. Palermo, Italy, 2010;
- Giovanna Rosone, *Balancing and clustering of words: a combinatorial analysis of the Burrows & Wheeler Transform*, Univ. Palermo, Italy, 2010;
- Carmen Alina Lupascu, *Automated Detection of Retinal Landmarks for Retinal Diagnosis Purpose*, Univ. Palermo, Italy, 2010;
- Prasum Chakrabart, *Approach Towards Realizing Time Variant Key in Cryptography*, Jadavpur University, Kolkata, India, 2009;
- Grzegorz Zycinski, *Applying data integration into reconstruction of gene networks from microarray data*, Univ. Genoa, Italy, 2009;
- Saverio Salzo, *Image registration using non-parametric models*, Univ. Genoa, Italy, 2009;
- Davide Imperati, *Relationship between Magnetic-Resonance Diffusion-Decay and Tissue Microstructure in Biological Probes*, Univ. Statale di Milano, Italy, 2009;
- Andrea A. F. Brega, *Identification of Features Explaining Complex Classifications*, Univ. Statale di Milano, Italy, 2009;
- Stella Pratissoli, *A Fully Automatic Liver Segmentation System Using Fast Marching Methods*, Univ. Statale di Milano, Italy, 2009;
- Domenico Redavid, *Towards the Orchestration of Semantic Web Services*, Univ. Bari, Italy, 2008;
- Corrado Loglisci, *A Data-Mining Approach to the Problem of Temporal Projection on Longitudinal Data*, Univ. Bari, Italy, 2008;
- Maria Teresa Torsello, *Web Intelligence. A Neuro-Fuzzy WEB personalization System*, Univ. Bari, Italy, 2008;
- Antonio Varlaro, *Spatial clustering of structured objects*, Univ. Bari, Italy, 2008;
- Marco Elio Tabacchi, *Images through a looking glass - Recent methods for bidimensional bilateral Symmetry Detection in Computer Vision - followed by - A novel operator for evaluation of planar symmetry preferences*, Univ. Palermo, Italy, 2008;
- K. Raghuveer, *Design and Evaluation Studies of Summarization Techniques of Text Documents*, Visvesvaraya Technological University Jnana Sangama, Belgaum, Karnataka State, India, 2007;
- Franco Alberto Cardillo, *Attention-based Object Detection*, Univ. Pisa, Italy, 2007;
- Stefano Cataudella, *On Abstract Interpretation of Object Calculi*, Univ. Pisa, Italy, 2007;
- Francesca Lonetti, *Temporal Video Transcoding in Mobile Systems*, Univ. Pisa, Italy, 2007;
- Alessandro Passaro, *Niching in Particle Swarm Optimization*, Univ. Pisa, Italy, 2007;
- Diego Puppini, *Search Engine Architecture Based on Collection Selection*, Univ. Pisa, Italy, 2007;
- Claudio Scordino, *Dynamic Voltage Scaling for Energy-Constrained Real-Time Systems*, Univ. Pisa, Italy, 2007;
- Claudia Sodini, *Models and algorithms for Conflict, Analysis and Prevention*, Univ. Pisa, Italy, 2007;
- Raffaella Folgieri, *Ensembles based on Random Projection (Subspace) for gene expression data analysis*, Univ. Milano, Italy, 2007;
- Madalin Vlad, *Integrated System for Smart Cards Based Electronic Transactions*, Universitatea Politehnica Bucuresti, Romania, 2007;
- Srikanta Murty. K, *Transformation of Epigraphical Objects into Machine Recognizable Image Patterns*, University of Mysore, India, 2006;

- Giosue' Lo Bosco, *Evolutionary Algorithms for Data Analysis*, Univ. Palermo, Italy, 2004;
- Anna Maddalena, *Pattern Based Management: Data Models and Architectural Aspects*, Univ. Genoa, Italy, 2004;
- Elena Casiraghi, *A Computer Aided Diagnosis System for Lung Nodule Detection in Postero Anterior Chest Radiographs*, Univ. Milano, Italy, 2004;
- Emanuele Franceschi, *Advanced Hypothesis Testing Techniques and their Applications to Image Classification*, Univ. Genoa, Italy, 2004;
- Matteo Matteucci, *Evolutionary Learning of Adaptive Models Within a Bayesian Framework*, Politecnico Milano, Italy, 2003;
- Angelo Ciaramella, *Soft Computing Methodologies for Data Analysis*, Univ. Salerno, Italy, 2003.

University Courses Taught:

- Computational Intelligence (Univ. Genoa) 2006/07, 2009/10, 2019/2020, 2020/21, 2021/22;
- Well-being Technologies (University of Genoa), 2016/17, 2017/18, 2018/19, 2019/2020, 2020/21, 2021/22;
- Basis of Computer Science, (University of Genoa) 2013/14, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19, 2019/2020, 2020/21, 2021/22;
- Computer Programming (University of Genoa), 2013/14, 2013/14, 2016/17, 2017/18
- Informatics (University of Genoa), 2013/14;
- Machine Learning (University of Genoa), 2012/13;
- Laboratory of Software Development, 2012/13;
- Elements of Informatics (University of Genoa), 2012/13;
- Computer Programming (University of Genoa), 2009/10, 2010/11;
- Operating Systems (Univ. Pisa & Univ. Genoa-Joint Computer Science program at La Spezia), 2001/02, 2002/03, 2003/04, 2004/05, 2005/06, 2006/07, 2007/08;
- Evolutionary Computation (Univ. Pisa & Univ. Genoa - Joint Computer Science program at La Spezia), 2003/04, 2004/05, 2005/06, 2007/08;
- Neural Networks (Univ. Genoa) 2003/04, 2004/05;
- Soft Computing (Univ. Genoa) 2003/04, 2004/05, 2005/2006;
- Machine Learning (Univ. Pisa), 2003/04;
- Neural Networks 2 (Univ. Pisa), 2002/03;
- Lab. of system Programming (Univ. Pisa), 2001/02;
- Neural Networks 1 (Univ. Genoa), 1997/98, 1998/99, 1999/2000, 2001/02, 2002/03;
- Neural Networks 2 (Univ. Genoa), 1998/99, 1999/2000, 2000/01, 2001/02;
- Applied Electronics and Computer Architectures (Univ. Genoa), 1991/92, 1993/94, 1994/1995, 1995/96, 1996/97.

Teaching in Advanced Courses:

- Lecture on *Artificial Intelligence in Healthcare*, Master University of Udine (ITALY) on Direct and govern public institutions, 2020 (4 hours).
- Lecture on (1) *Introduction to data clustering*; (2) *Fuzzy Clustering*, 4-th European Summer School on Fuzzy Logic and Applications (SFLA 2018) Bari, Italy, 2018 (4 hours).

- Lecture on *Unsupervised Tracking of Time-Evolving Data Streams*, 12th International Conference on Scalable Uncertainty Management (SUM 2018), Milan, Italy, Oct 3-5 2018 (1 hour).
- Lecture on *Time Evolving Data Streams Unsupervised Tracking*, 2017 IEEE CIS Summer School on Recent Advances in Computational Intelligence (RACI) Kolkata, India, 2017 (2 hours).
- Lecture on *Computational Intelligence and Big Data in Health*, Faculty Development Program, Faculty of Engineering and Informatics, Amity Institute of Information Technology, Amity University Uttar Pradesh, Noida (India), 2016 (30 min).
- Lectures on *Introduction to Data Clustering* to PhD Students of the Departement d'Informatique - Universite de Nice - Sophia Antipolis (France), Erasmus Programme Teaching Staff Mobility Assignment (STA) a.y. 2012/2013, Mar 18-22, 2013 (6 hours).
- Lectures on *Introduction to Data Clustering* at University Master 's Degree in "Technologies of Health and Bioengineering ", Vietri sul Mare – Salerno, Italy, 24 May, 2013 (4 hours).
- Tutorial on Biclustering Algorithms for the Analysis of Bioinformatics Data, Eighth International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics (CIBB 2011) Gargnano-Brescia, Italy, June 30-July 2, 2011 (2 hours).
- Tutorials at Computational Intelligence Methods for Data Analysis in Oncology Bioinformatics (CIOB) on Fuzzy Sets and Fuzzy Logic and on Variable Selection, Vietri sul Mare, Salerno, 24-29 May 2010 (3 hours).
- Lectures to PhD students on Mathematics, Univ. Palermo on Introduction to Clustering e su Biclustering Algorithms for Data Mining in Bioinformatics, Palermo, 19-29 Novembre 2009 (6 hours).
- Introduction to bioinformatics data sets mining using fuzzy biclustering (2 hours). Tutorial at the International Joint Conference on Neural Networks, Atlanta, Georgia, July, 2009.
- Introduction to Clustering & Biclustering Algorithms for Data Mining in Bioinformatics (6 hours), Doctoral Course, University of Palermo, Nov. 2009.
- Ensemble Methods for Machine Learning (6 hours), Doctoral Course, University of Palermo (July 2008).
- Tutorial on Biclustering Bioinformatics Data Sets, post-doc course on Modelling and Simulation in Science of the series Intl Workshop of the Data Analysis in Astronomy LIVIO SCARSI, EFMCSG, Erice, April 2007
- Introduction to Clustering Techniques (1 hour), Tutorial International Joint Conference on Neural Networks, Budapest, Hungary, 2004.
- Learning with multiple machines: ECOC models vs Bayesian Framework (1 hour), Tutorial International Joint Conference on Neural Networks, Portland, Oregon, 2003.
- Methods and Applications of Clustering (12 hours), Master on Advanced Technologies of Computers and Communications, IIASS Vietri (Italy), 2002.
- Fuzzy Logic (20 hours), Master on Advanced Technologies of Computers and Communications, IIASS Vietri (Italy), 2002.
- ECOC Ensembles of Learning Machines (2 hours) Course of the International School on Neural Networks, E. R. Caianiello on Ensemble Methods in Learning Machines, IIASS Vietri (Italy), 2002.
- An Ensemble Method for Time Series Learning (2 hours) Course of the International School on Neural Networks, E. R. Caianiello on Ensemble Methods in learning Machines, IIASS Vietri (Italy), 2002.

- Methods and Applications of Clustering (20 hours), Master on Advanced Technologies of Computers and Communications, IIASS Vietri (Italy), 2001.
- Pattern Recognition and Computational Intelligence (20 hours), Post-Graduate School Univ. Brescia (Italy), 1999.
- Unsupervised Learning Machines (2 hours), Post-Graduate School Univ. Salerno (Italy), 1999.
- Fuzzy Logic (12 hours), Master on Advanced Technologies of Computers and Communications, IIASS Vietri (Italy), 1999.
- Fuzzy Clustering (2 hours), Post-Graduate School Univ. Salerno (Italy), 1998.
- Neural Networks and Soft Computing (12 hours), Master on Advanced Technologies of Computers and Communications, IIASS Vietri (Italy), 1998.
- Hard and fuzzy clustering paradigms (4 hours), post-doc 40th AVCP course on Le traitement informatique du signal (Société Suisse de Physique) Saillon, Valais (Switzerland), 1998.
- Fuzzy Logic (20 hours), Master on Advanced Technologies of Computers and Communications, IIASS Vietri (Italy), 1997.
- Introduction to fuzzy logic (2 hours), School on Techniques and Experiences on Soft Computing (Italian Electro-technical Society AEI), 1996.
- Bayes Classification and Connectionist Systems (2 hours), Advanced School on Neural Networks on Biomedicine (Italian Biomedical Physics Association), Como (Italy), 1993.

Francesco Masulli

List of Publications

Archival journals

- M. Anghinolfi, G. Ricco, P. Corvisiero, and F. Masulli, "The response of organic scintillators to fast neutrons", *Nucl. Instr. Meth.*, vol. 165, pp. 217–224, 1979.
- M. Scotto, P. G. Gagna, M. Nobile, L. Spadavecchia, and F. Masulli, "Computer assisted generation of time-compressed video signals for visual studies", *IEEE Trans. Biomedical Engineering*, vol. 35 (3), pp. 210–214, 1988.
- F. Masulli and M. Riani, "Ambiguity and structural information in the perception of reversible figures", *Perception & Psychophysics*, vol. 45 (6), pp. 501–513, 1989.
- L. Studer and F. Masulli, "On the structure of a neuro-fuzzy system to forecast chaotic time series", *Fuzzy Systems & A. I., Reports and Letters*, vol. 4, pp. 31–37, ISSN 1016-211, 1995.
- F. Masulli, D. Sona, A. Sperduti, A. Starita, and G. Zaccagnini, "A system for the automatic morphological analysis of medieval manuscripts", *Journal of Forensic Document Examination*, vol. 9, pp. 45–55, 1996, (invited).
- A. Schenone, F. Firenze, F. Acquarone, M. Gambaro, F. Masulli, and L. Andreucci, "Segmentation of multivariate medical images via unsupervised clustering with adaptive resolution", *Computerized Medical Imaging and Graphics*, vol. 20, pp. 119–129, 1996.
- L. Studer and F. Masulli, "Building a neuro-fuzzy system to efficiently forecast chaotic time series", *Nuclear Instruments and Methods in Physics Research, Section A*, vol. 389, pp. 264–667, 1997.
- F. Casalino, F. Masulli, and A. Sperduti, "Rule specialization in networks of fuzzy basis functions", *Intelligent Automation and Soft Computing*, vol. 4, pp. 73–82, 1998.
- P. Bogus, A. M. Massone, F. Masulli, and A. Schenone, "Interactive graphical system for the segmentation of multimodal medical volumes using fuzzy clustering", *Machine Graphics & Vision*, vol. 7, pp. 781–791, ISSN 1230-0535, 1998.
- P. Gurzi, A. Masulli, Spalvieri, M. L. Sotgiu, and G. Biella, "Rough annealing by two-step clustering, with application to neuronal signals", *Journal of Neuroscience Methods*, vol. 85 (1), pp. 81–87, 1998.
- A. Zucchiatti, D. Moricciani, A. M. Massone, F. Masulli, M. Copogni, M. Castoldi, A. D'Angelo, F. Ghio, B. Girolami, P. Levi Sandri, and M. Sanzone, "Optimization of clustering algorithms for the reconstruction of events started by a 1 GeV photon beam in a segmented BGO calorimeter", *Nuclear Instruments and Methods in Physics Research, Section A*, vol. 425, pp. 536–548, 1999.
- F. Masulli and A. Schenone, "A fuzzy clustering based segmentation system as support to diagnosis in medical imaging", *Artificial Intelligence in Medicine*, vol. 16, pp. 129–147, 1999.
- F. Masulli, R. Parenti, and L. Studer, "Neural modeling of non-linear processes: Relevance of the Takens-Mané theorem", *International Journal on Chaos Theory and Applications*, ISSN 1453-1437, Vol. 4/2-3, pp. 59–74, 1999.
- M. Pardo, G. Faglia, G. Sberveglieri, M. Corte, F. Masulli, and M. Riani, "A time delay neural network for estimation of gas concentrations in a mixture", *Sensors and Actuators B*, vol. 65/1-3, pp. 267–269, 2000.

- M. Pardo, G. Faglia, G. Sberveglieri, M. Corte, F. Masulli, and M. Riani, "Monitoring reliability of sensors in an array by neural networks", *Sensors and Actuators B*, vol. 67, pp. 128–133, 2000.
- Gb. Cicioni and F. Masulli, and D. Baratta, "A software toolbox for time series prediction and its application to daily rainfall forecasting in a geographic basin", *Economics and Complexity*, vol. 2 n.1, pp. 11–24, 2000, ISSN. 1398-1706, (invited).
- R. Parenti, C. Penno, D. Baratta and F. Masulli, "Implementing very high speed hierarchical MLP-based Classification Systems in real-time industrial environments", *International Journal of Knowledge-Based Intelligent Engineering Systems*, vol. 5, pp. 179–186, 2001.
- M. Pardo, G. Sberveglieri, A. Taroni, F. Masulli, and G. Valentini, "Decompositive Classification Models for Electronic Noses", *Analitica Chimica Acta*, vol. 446, pp. 223–232, 2001.
- N. Giusti, F. Masulli and A. Sperduti, "Theoretical and Experimental Analysis of a Two-Stage System for Classification", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 24, no. 7, pp. 893–904, 2002.
- G. Valentini and F. Masulli, "NEUROObjects: an object-oriented library for neural network development", *Neurocomputing*, vol. 48 no 1–4, pp. 623– 646, 2002.
- D. Baratta, Gb. Cicioni, F. Masulli, L. Studer, "Application of an Ensemble Technique based on Singular Spectrum Analysis to Daily Rainfall Forecasting", *Neural Networks*, vol. 16/3-4, pp.375–387, 2003.
- F. Masulli, S. Rovetta, "Random Voronoi ensembles for gene selection", *Neurocomputing*, vol. 55/3-4, pp. 721–726, 2003.
- P. Rosso, F. Masulli, D. Buscaldi, "Un Método Automático para la Desambiguación Léxica de Nombres", *Revista Colombiana de Computación*, Vol.4/1, pp.57–64, ISSN 1657–2831, 2003.
- F. Masulli, F. and G. Valentini, "Effectiveness of Error Correction Output coding decomposition Schemes in ensemble and monolithic learning machines", *Pattern Analysis and Application Journal*, vol. 6, pp. 285–300, 2003.
- F. Masulli, G. Valentini, "An experimental analysis of the dependence among codeword bit errors in ECOC learning machines", *Neurocomputing*, 57C, pp. 189–214, 2004.
- G.B. Ferrara, L. Delfino, F. Masulli, S. Rovetta, R. Sensi, "A Fuzzy Approach to Image Analysis in HLA Typing using Oligonucleotide Microarrays", *Fuzzy Sets and Systems* 152, pp. 37-48, 2005.
- A.M. Massone, L. Studer, F. Masulli, "Possibilistic Clustering Approach to Trackless Ring Pattern Recognition in RICH Counters", *International Journal of Approximate Reasoning*, 41/2, pp. 96-109, 2006.
- F. Masulli, S. Rovetta, "Soft Transition from Probabilistic to Possibilistic Fuzzy Clustering", *IEEE Transactions on Fuzzy Systems*, 14/4, pp. 516-526, 2006.
- S. Rovetta, F. Masulli, "Shared farthest neighbor approach to clustering of high dimensionality, low cardinality data", *Pattern Recognition*, 39, pp. 2415-2425, 2006.
- S. Rovetta, F. Masulli, "Vector quantization and fuzzy ranks for image reconstruction", *Image and Vision Computing*, 25, 2, pp. 204-213, 2007.
- K. Honda, H. Ichihashi, F. Masulli, S. Rovetta, "Linear Fuzzy Clustering with Selection of Variables using Graded Possibilistic Approach", *IEEE Transactions on Fuzzy Systems*, 15, 5, pp. 878-889, 2007.
- M. Filippone, F. Camastra, F. Masulli, S. Rovetta, "A survey of kernel and spectral methods for clustering", *Pattern Recognition*, 41, 1 pp. 176-190, 2008.
- F. Masulli, S. Mitra, "Natural Computing Methods in Bioinformatics: A Survey",

- International Journal of Information Fusion, 10/3, pp. 211-216, 2009.
- S. Rovetta, F. Masulli, M. Filippone, "Soft Ranking in Clustering", *Neurocomputing*, 72, pp. 2028-2031, 2009.
 - S. Rovetta, F. Masulli, M. Filippone, "Clustering in the Membership Embedding Space", *Int. J. Knowledge Engineering and Soft Data Paradigms*, 1, pp. 363-375, 2009.
 - M. Filippone, F. Masulli, S. Rovetta, "Applying the Possibilistic C-Means Algorithm in Kernel-Induced Spaces", *IEEE Transactions on Fuzzy Systems*, 18/3, pp. 572-584, 2010.
 - M. Filippone, F. Masulli, S. Rovetta, "Simulated Annealing for Supervised Gene Selection", *International Journal of Soft Computing, A Fusion of Foundations, Methodologies and Applications*, 15/8, pp. 1471-1482, 2011.
 - F. Masulli, S. Rovetta, F. Masulli, G. Russo, "Validation of a context analysis method for microRNA data", *Nuovo Cimento*, 35C/5s1, pp.109--117, 2012, (DOI 10.1393/ncc/i2012-11340-4)
 - F. Masulli, AM., Massone, A. Schenone, "Evolution Strategy for the C-Means Algorithm: Application to Multimodal Image Segmentation", *International Journal on Current Science & Technology*, 1(1), pp. 171-195, 2013.
 - S. Rovetta, F. Masulli, "Visual stability analysis for model selection in graded possibilistic clustering", *Information Sciences*, 279, pp.37–51, 2014.
 - A. Abdullatif, F. Masulli, S. Rovetta, "Tracking Time Evolving Data Streams for Short-Term Traffic Forecasting", *Data Science and Engineering* 2(3): 210-223, 2017.
 - A. Abdullatif, F. Masulli, S. Rovetta, "Clustering of nonstationary data streams: A survey of fuzzy partitional methods", *Wiley Interdisc. Rev.: Data Mining and Knowledge Discovery* 8(4), 2018.
 - F. Masulli, M. Galluccio, C.-L. Gerard, H Peyre, S. Rovetta, M P Bucci, "Effect of different font sizes and of spaces between words on eye movement performance: An eye tracker study in dyslexic and non-dyslexic children", *Vision Research* 153, pp. 24--29, 2018.
 - M. Amina, J. Yazdani, S. Rovetta, F. Masulli: Toward development of PreVoid alerting system for nocturnal enuresis patients: A fuzzy-based approach for determining the level of liquid encased in urinary bladder. *Artif. Intell. Medicine* 106: 101819 (2020)
 - S. Rovetta, G. Suchacka, F. Masulli: Bot recognition in a Web store: An approach based on unsupervised learning. *J. Netw. Comput. Appl.* 157: 102577 (2020)
 - S. Banerjee, S. Mitra, F. Masulli, S. Rovetta: Glioma Classification Using Deep Radiomics. *SN Comput. Sci.* 1(4): 209 (2020)
 - P. Masulli, F. Masulli, S. Rovetta, A. Lintas, A.E. P. Villa: Fuzzy Clustering for Exploratory Analysis of EEG Event-Related Potentials. *IEEE Trans. Fuzzy Syst.* 28(1): 28-38 (2020)
 - S. Rovetta, Z. Mnasri, F. Masulli, A. Cabri: Emotion Recognition from Speech: An Unsupervised Learning Approach. *Int. J. Comput. Intell. Syst.* 14(1): 23-35 (2021)
 - G. Suchacka, A. Cabri, S. Rovetta, F. Masulli: Efficient on-the-fly Web bot detection. *Knowl. Based Syst.* 223: 107074 (2021)
 - Z. Mnasri, S. Rovetta, F. Masulli: A Novel Pitch Detection Algorithm Based on Instantaneous Frequency for Clean and Noisy Speech. *Circuits Syst. Signal Process.* 41(11): 6266-6294 (2022)
 - Z. Mnasri, S. Rovetta, F. Masulli: Anomalous sound event detection: A survey of machine learning based methods and applications. *Multim. Tools Appl.* 81(4): 5537-

5586 (2022)

- H. Derrouz, A. Cabri, H. A. Abdelali, R. O. H. Thami, F. Bourzeix, S. Rovetta, F. Masulli: End-to-end quantum-inspired method for vehicle classification based on video stream. *Neural Comput. Appl.* 34(7): 5561-5576 (2022)
- A. Cabri, F. Masulli, S. Rovetta, G. Suchacka: A Quantum-Inspired Classifier for Early Web Bot Detection. *IEEE Trans. Inf. Forensics Secur.* 17: 1684-1697 (2022)
- Z. Shojaee, S.A. Shahzadeh Fazeli, E. Abbasi, F. Masulli, S. Rovetta: A Mutual Information Based on Ant Colony Optimization Method to Feature Selection for Categorical Data Clustering. *Iran J Sci* 47, 175–186 (2023). <https://doi.org/10.1007/s40995-022-01395-2>

Book reviews

- F. Masulli, "Book Review: Understanding Bioinformatics by M. Zvelebil & Baum", *Computer Methods and Programs in Biomedicine*, 91/2, p. 182, 2008.

Guest Editorials of Journal Special issues

- A. M. Colla, F. Masulli, and R. Plamondon (Guest Editors), "Guest Editorial of the Special issue on Advances in Handwriting and Drawing Analysis", *Intelligent Automation and Soft Computing*, Vol 7, n. 3, pp. 161-162, 2001.
- F. Masulli, and R. Parenti (Guest Editors), "Guest Editorial of the Special Paper Selection on Soft Computing and Industrial Applications", *KES - International Journal of Knowledge-Based Intelligent Engineering Systems*, Vol 5, n. 3, pp. 155, 2001.
- F. Masulli, and A. Petrosino (Guest Editors), "Guest Editorial of the Special issue on Advances Fuzzy Sets and Rough Sets", *International Journal of Approximate Reasoning*, vol. 41, n. 2, pp. 75-76, 2006.
- F. Masulli, S. Mitra (Guest Editors), "Guest Editorial of the Special issue on Natural Computing in Bioinformatics", *International Journal of Information Fusion*, 10/3, p. 210, 2009.
- F. Masulli, R. Tagliaferri, G. Valentini (Guest Editors), "Computational intelligence and machine learning in Bioinformatics", *International Journal of Artificial Intelligence in Medicine*, 45/2-3, pp. 91-96, 2009.
- F. Masulli, R. Tagliaferri, (Guest Editors), "Advances in Computational Intelligence and Bioinformatics", *International Journal of Soft Computing, A Fusion of Foundations, Methodologies and Applications*, 15/8, pp. 1457-1458, 2011.

Abstract on international Journals

- F. Masulli, M. Riani, and O. Martinoli, "Figure-ground reversals: The effect of percepts complexities", *Perception*, vol. 16 (2), pp. 235, 1987, (abstract).
- F. Masulli and M. Riani, "Perceptual reversal of ambiguous patterns: The complexity of percepts and their stability, *Perception*", vol. 11 (1), pp. A32-A33, 1982, (abstract).
- G. A. Oliva, M. Scotto, F. Masulli, and M. T. Tuccio, "Visual scanning strategies in simple geometrical figures, *Perception*", vol. 14 (1), pp. A31, 1985, (abstract).
- M. Riani, F. Masulli, E. Simonotto, "Stochastic Aspects of the Phenomenon of Perceptual Alternation", in *Proceedings of the 11th World Congress of Psychophysiology*, *International Journal of Psychophysiology*, vol. 45, pp. 25-26, 2002 (abstract).
- C. Snoek, P. Youngblood, A. Martin, H. Nishimura, J. Durso, F. Masulli, S. Rovetta,

- S. Hayes, M. Napolitano, G. Russo, "Leveraging Virtual Professional Networks: The Science Circle as a Case Study in Best Practices", *Journal of Virtual Studies*, 2/1, pp. 42-43, 2011 (abstract).
- D. Muresu, L. Cito, F. Masulli, S. Rovetta, Pp. Basso, O. Olabinjo, A. Giordano, G. Russo, "DigiSLab: example of Web 3.0 application", *Journal of Virtual Studies*, 2/1, pp. 39, 201 (abstract).
 - C. Snoek, P. Youngblood, A. Martin, H. Nishimura, J. Durso, F. Masulli, S. Rovetta, S. Hayes, M. Napolitano, G. Russo, "What is education in a virtual world? Science Circle Network Experience", *Journal of Virtual Studies*, 2/1, pp. 82-83, 2011 (abstract).

Newsletters

- F. Masulli and R. Tagliaferri, BIOINFORMATICS SIG, TRI-SOCIETY NEWSLETTERS ENNS-INNS-JNNS, Vol. 4, N. 1 pag. 4-5, 2006.
- F. Masulli, "CIOB 2010, International School on Computational Intelligence Methods for Data Analysis in Oncology Bioinformatics", *Newsletter RN BIO - Italian Network for Bioinformatics Oncology Volume 2010, Number 5* pag.1–2, 2010.
- F. Masulli, "Fuzzy Sets and Fuzzy Logic", *Newsletter RN BIO - Italian Network for Bioinformatics Oncology Volume 2010, Number 5* pag. 3–4, 2010.
- F. Masulli, "Variable Selection", *Newsletter RN BIO - Italian Network for Bioinformatics Oncology Volume 2010, Number 5* pag. 6–7, 2010.
- F. Masulli, "Activities of SIG Bioinformatics and Intelligence in 2012", *Natural Intelligence Magazine*, Volume 3, 2012.

LNCS-Springer

- F. Masulli, and G. Valentini, "Dependence among Codewords Bits Errors in ECOC learning Machines: An Experimental Analysis", in *MCS2001 International Workshop on Multiple Classifier Systems*, pp. 158–167, *Lecture Notes in Computer Sciences*, Vol. 1857, Springer-Verlag, Heidelberg (Germany), 2001.
- F. Masulli, M. Pardo, G. Sberveglieri, G. Valentini, "Boosting Classifiers in Electronic Noses", in *MCS2002, Multiple Classifier Systems*, *Series Lecture Notes in Computer Sciences*, Vol. 2364, pp. 262–271, Springer-Verlag, Heidelberg (Germany), 2002.
- G. Valentini and F. Masulli, "Ensembles of Learning Machines", in M. Marinaro and R. Tagliaferri, editors, *Neural Nets WIRN Vietri-02*, *Series Lecture Notes in Computer Sciences*, Vol. 2486, pp.3–19, Springer-Verlag, Heidelberg (Germany), 2002 (invited review).
- F. Masulli and G. Valentini, "Effectiveness of error correcting output correcting output codes in multiclass learning problems", in *Proceedings of MCS2000 - First International Workshop on Multiple Classifier Systems*, Cagliari (Italy), June 21-23, 2000, *Lecture Notes in Computer Science*, Springer-Verlag, Heidelberg (Germany), pp. 107–116, vol 1857, 2000.
- P. Rosso, F. Masulli, D. Buscaldi, F. Pla, and A.G. Molina, "Automatic Noun Disambiguation", in A. Gelbukh, editor, *Computational Linguistics and Intelligent Text Processing 4th International Conference, CICLing 2003*, Mexico City, Mexico,

Series Lecture Notes in Computer Sciences, Vol. 2588, pp. 273–276, Springer-Verlag, Heidelberg (Germany), 2003.

- F. Masulli, S. Rovetta, “An Algorithm to Model Paradigm Shifting in Fuzzy Clustering”, in B. Apolloni, M. Marinaro, R. Tagliaferri, editors, Neural Nets Wirm Vietri-03, Series Lecture Notes in Computer Sciences, Vol. 2859, pp.70–76, Springer-Verlag, Heidelberg (Germany), 2003.
- F. Masulli, S. Rovetta, “Gene selection using Random Voronoi Ensembles”, in B. Apolloni, M. Marinaro, R. Tagliaferri, editors, Neural Nets Wirm Vietri-03, Series Lecture Notes in Computer Sciences, Vol. 2859, pp. 302–307, Springer-Verlag, Heidelberg (Germany), 2003.
- D. Buscaldi, P. Rosso, F. Masulli, “Integrating Conceptual Density with WordNet Domain and CALD Glosses for Noum Sense Disambiguation”, Advances in Natural Language Processing: 4th International Conference, EsTAL 2004, Alicante, Spain, October 20-22, 2004, Series Lecture Notes in Computer Sciences, vol. 3230, pp. 183–194, Springer-Verlag, Heidelberg (Germany), 2004.
- F. Masulli, S. Rovetta, “Fuzzy concepts in vector quantization training”, in V. Di Gesu, F. Masulli, A. Petrosino, editors, WILF03 – International Workshop on Fuzzy Logic and Applications, Series Lecture Notes in Artificial Intelligence, LNCS/LNAI 2955, pp. 279-288, Springer-Verlag, Heidelberg (Germany), 2006.
- S. Rovetta, F. Masulli, M. Filippone, “Soft Rank Clustering”, in B. Apolloni, M. Marinaro, G. Nicosia, R. Tagliaferri (Ed.s), Neural Nets 2005, Series Lecture Notes in Computer Sciences, LNCS 3931, Springer-Verlag, pp. 207-213, Springer-Verlag, Heidelberg (Germany), 2006.
- M. Filippone, F. Masulli, S. Rovetta, “Unsupervised Gene Selection and Clustering using Simulated Annealing”, in I. Bloch, A. Petrosino, and A. Tettamanzi (Ed.s), Fuzzy Logic and Applications: 6th International Workshop, WILF 2005, Series Lecture Notes in Artificial Intelligence, LNCS/LNAI 3849, pp. 229-235, Springer-Verlag, Heidelberg (Germany), 2006.
- K. Honda, H. Ichihashi, A. Notsu, F. Masulli, S. Rovetta, “Several Formulations for Graded Possibilistic Approach to Fuzzy Clustering”, in Fifth International Conference on Rough Sets and Current Trends in Computing (RSCTC 2006), Kobe, Japan, Series Lecture Notes in Computer Sciences, Vol. 4259, pp. 939-948, Springer-Verlag, Heidelberg (Germany), 2006.
- M. Filippone, F. Masulli, S. Rovetta, S. Mitra, H. Banka, “Possibilistic Approach to Biclustering: An Application to Oligonucleotide Microarray Data Analysis”, in Proceedings of CMSB 2006, Computational Methods in Systems Biology, Series Lecture Notes in Bioinformatics, Vol. LNCS/LNBI 4210, pp. 312- 322, Springer-Verlag, Heidelberg (Germany), 2006.
- S. Rovetta, F. Masulli, M. Filippone, “Membership Embedding Space Approach and Spectral Clustering”, in Knowledge-Based Intelligent Information and Engineering Systems 11th International Conference, KES 2007, XVII Italian Workshop on Neural Networks, Vietri sul Mare, Italy, September 12- 14, 2007, Proceedings, Part III, Series Lecture Notes in Artificial Intelligence, Vol. LNCS/LNAI 4694, pp. 901-908, Springer-Verlag, Heidelberg (Germany), 2007.
- M. Filippone, F. Masulli, S. Rovetta, “Possibilistic Clustering in Feature Space”, in Fuzzy Logic and Applications - Applications of Fuzzy Sets Theory in Proceedings of the WILF 2007, International Workshop on Fuzzy Logic and Applications (Camogli-Italy), Series Lecture Notes in Artificial Intelligence, vol. LNCS/LNAI 4578, pp. 219-226, Springer-Verlag, Heidelberg (Germany), 2007.
- M. Filippone, F. Masulli, S. Rovetta, “Comparing Fuzzy Approaches to Biclustering”,

- in "Computational Intelligence Methods for Bioinformatics and Biostatistics - Selected revised papers of CIBB 2008", Series Lecture Notes in Bioinformatics, LNCS/LNBI 5488, pp. 91-101, Springer-Verlag, Heidelberg (Germany), 2009.
- S. Rovetta and F. Masulli, "An experimental validation of some indexes of fuzzy clustering similarity", Series Lecture Notes in Artificial Intelligence, LNCS/LNAI 5571, pp. 132-139, Springer-Verlag, Heidelberg (Germany), 2009.
 - V.N.M. Aradhya, F. Masulli, S. Rovetta, "A Novel Approach for Biclustering Gene Expression Data Using Modular Singular Value Decomposition", in Computational Intelligence Methods for Bioinformatics and Biostatistics - Selected revised papers of CIBB 2009, Series Lecture Notes in Bioinformatics, LNCS/LNBI 6160, pp. 254-65, Springer-Verlag, Heidelberg (Germany), 2010.
 - E. Nosova, R. Tagliaferri, F. Masulli, S. Rovetta, "Biclustering by resampling" in Computational Intelligence Methods for Bioinformatics and Biostatistics - Selected revised papers of CIBB 2010, Series Lecture Notes in Bioinformatics, LNCS/LNBI 6685, pp.147-158, Springer-Verlag, Heidelberg (Germany), 2011.
 - S. Rovetta, F. Masulli, T. Adel, "Tuning graded possibilistic clustering by visual stability analysis", LNCS/LNAI 6857, pp. 164-171, Springer-Verlag, Heidelberg (Germany), 2011.
 - H. Mahmoud, F. Masulli, S. Rovetta, "A Fuzzy Clustering Segmentation Approach for Medical Image Registration", in Computational Intelligence Methods for Bioinformatics and Biostatistics - Selected revised papers of CIBB 2012, Series Lecture Notes in Bioinformatics, LNCS/LNBI 7845, pp. 37-47, Springer-Verlag, Heidelberg (Germany), 2013.
 - F. Masulli, S. Rovetta, H. Mahmoud, "Neighbor-Based Similarities", in Fuzzy Logic and Applications 10th International Workshop, WILF 2013, Genoa, Italy, November 19-22, 2013, LNCS/LNAI 8256, Springer-Verlag, Heidelberg (Germany), 2013.
 - H. Mahmoud, F. Masulli, S. Rovetta, G. Russo, "Community Detection in Protein-Protein Interaction Networks Using Spectral and Graph Approaches, in Computational Intelligence Methods for Bioinformatics and Biostatistics - Selected revised papers of CIBB 2013, pp. 62-75 Series Lecture Notes in Bioinformatics, Volume 8452, Springer-Verlag, Heidelberg (Germany), 2014.
 - H. Mahmoud, F. Masulli, S. Rovetta, G. Russo, "Detecting Overlapping Protein Communities in Disease Networks", in Computational Intelligence Methods for Bioinformatics and Biostatistics - Selected revised papers of CIBB 2014, Series Lecture Notes in Bioinformatics, pp 109-120, Volume 8623, Springer-Verlag, Heidelberg (Germany), 2015
 - F. Masulli, S. Rovetta, "Clustering High-Dimensional Data", in International Workshop on Clustering High-Dimensional Data - Selected revised papers of CHDD 2012, LNCS, Volume 7627, Pages 1-13, Springer-Verlag, Heidelberg (Germany), 2015.
 - S. Rovetta, F. Masulli, "Comparing fuzzy clusterings in high dimensionality", in International Workshop on Clustering High-Dimensional Data - Selected revised papers of CHDD 2012, LNCS, Volume 7627, Pages 50-71, Springer-Verlag, Heidelberg (Germany), 2015.
 - H. Mahmoud, F. Masulli, S. Rovetta, A. Abdullatif, "Comparison of Methods for Community Detection in Networks" in Artificial Neural Networks and Machine Learning - ICANN 2016, Proceedings, Part II, series Lecture Notes in Computer Science, Volume 9887, pp 216-224, 2016.
 - H. Mahmoud, F. Masulli, S. Rovetta, "Semantic Clustering for Identifying Overlapping Biological Communities", CIBB 2016: 235-247

- A. Abdullatif, F. Masulli, S. Rovetta, A. Cabri, "Graded Possibilistic Clustering of Non-stationary Data Streams" Fuzzy Logic and Applications 10th International Workshop, WILF 2016 LNCS/LNAI 10147, Springer-Verlag, Heidelberg (Germany), pp. 139–150, 2016
- P. Masulli, F. Masulli, S. Rovetta, A. Lintas, A. E. P. Villa "Unsupervised Analysis of Event-Related Potentials (ERPs) During an Emotional Go/NoGo Task", Fuzzy Logic and Applications 10th International Workshop, WILF 2016 LNCS/LNAI 10147, Springer-Verlag, Heidelberg (Germany), pp. 151–161, 2016
- S. Rovetta, F. Masulli, A. Cabri, "Measuring Clustering Model Complexity", ICANN (2) 2017: 434-441
- S. Rovetta, F. Masulli, "Soft Clustering: Why and How-To", WILF 2018: 67-82
- F. Masulli, S. Rovetta, "The Challenges of Big Data and the Contribution of Fuzzy Logic", WILF 2018: 261-264

Refereed book chapters

- A. Borsellino, F. Carlini, and F. Masulli, "Illusions optiques en trois livres-ordinateurs", in *L'Imaginaire Scientifique*, pp. 32–83, Trieste, 1986. L'Editoriale Libreria, (invited).
- F. Masulli and M. Scotto, "Movimenti oculari e valutazione di display video", in S. Bagnara and A. Stajano Eds., editors, *Ergonomia del Software*, pp. 95–105, Milano, 1987. CLUP, (invited).
- F. Masulli, "Bayesian classification by feedforward connectionist systems", in F. Masulli, P. G. Morasso, and A. Schenone, editors, *Neural Networks in Biomedicine - Proceedings of the Advanced School of the Italian Biomedical Physics Association - Como (Italy) 1993*, pp. 145–162, Singapore, 1994. World Scientific.
- F. Masulli, "Hard and fuzzy clustering paradigms", in M. Kunt and L. Studer, editors, *Proceedings of the 40th AVCP course on "Le traitement informatique du signal"*- Société Suisse de Physique, Saillon, Valais (Switzerland), 1998, (invited).
- F. Masulli, (invited contribution of 50 terms on Fuzzy Systems), in. *Comprehensive Dictionary of Electrical Engineering*, P. Laplante ed., CRC Press LLC and IEEE Press, Boca Raton, FL - USA, 1999 (invited).
- F. Masulli and L. Studer, "Time series forecasting and neural networks", in Harold Szu, editor, *Tutorials of the IJCNN'99 - 1999 International Joint Conference on Neural Networks*, Washington, DC. CDROM, IEEE, New York, 1999, (invited tutorial).
- F. Masulli, A. M. Massone, and A. Schenone, "Fuzzy clustering methods for the segmentation of multimodal medical volumes", in P. S. Szczepaniak, P. J. G. Lisboa, and S. Tsumoto, editors, *Fuzzy Systems in Medicine. Series Studies in Fuzziness and Soft Computing*, editor J. Kacprzyk, Springer-Verlag, pp. 335–350, Heidelberg (Germany), 2000, (invited).
- F. Masulli and A. Sperduti, "Learning techniques for supervised fuzzy classifiers", in, L. K. Jain and M. Russo, editors, *Fuzzy Learning*, pp. 147–169 CRC Press, Cambridge, 2000, (invited).
- A. Eleuteri, F. Masulli, R. Tagliaferri, "Learning with multiple machines: ECOC models vs Bayesian Framework", in, H. Szu, F.C. Morabito, editors, *International Joint Conference on Neural Networks, Book of Tutorials*, Portland, Oregon, IEEE Neural Network Society, Piscataway, NJ, USA, 2003.
- K. Honda, F. Masulli and S. Rovetta, "Introduction to Clustering Techniques", in, *International Joint Conference on Neural Networks, Book of Tutorials*, Budapest,

- Hungary, IEEE Neural Network Society, Piscataway, NJ, USA, 2004.
- F. Masulli and S. Rovetta, "Random Voronoi ensembles for gene selection in DNA microarray data", in Udo Seiffert, Lakhmi C. Jain and Patric Schweizer, editors, *Bioinformatics using Computational Intelligence Paradigms*, pp. 143–164, Series: *Studies in Fuzziness and Soft Computing*, vol. 176, Springer Verlag, Berlin, 2005 (invited).
 - F. Masulli and S. Rovetta, "Metodi Non Supervisionati nell'Analisi Esplorativa di Dati da DNA Microarray", in M. Ceccarelli, V. Colantuoni, G. Graziano, S. Rampone, Ed.s, *Bioinformatica. Sfide e prospettive*, Franco Angeli, Milano, Italy, ch.4, pp. 107-140, 2007 (invited).
 - F. Masulli, "Biclustering Bioinformatics Data Sets: A Possibilistic Approach", in V. Di Gesu, G. Lo Bosco, M.C. Maccarone, Ed.s, *Modelling and Simulation in Science*, World Scientific, Singapore, pp. 246–254, 2008 (invited).
 - F. Masulli, S. Rovetta, G. Russo, "Predicting microRNA Prostate Cancer Target Genes", in U. Maulik, S. Bandyopadhyay and J. T. L. Wang, Ed.s, *Computational Intelligence and Pattern Analysis in Biological Informatics*, John Wiley, pp. 99–118, 2010 (invited).
 - G. Russo, A. Puca, F. Masulli, S. Rovetta, L. Cito, D. Muresu, F. Rizzolio, A. Giordano, "Epigenetics, microRNAs and Cancer: an Update", in A. Giordano and M. Macaluso Ed.s, *Cancer Epigenetics: Biomolecular Therapeutics for Human Cancer*, pp.101-112, John Wiley & Sons, Inc., 2011.

Refereed Conference Proceedings (invited)

- F. Masulli and F. Casalino, "A neuro-fuzzy system for Bayesian classification", in *Proceedings of EUFIT'95 Third European Congress on Intelligent Techniques and Soft Computing*, pp. 1425–1429, Aachen (Germany), 1995. Verlag und Druck Mainz. (invited at the session on Fuzzy Classification Rules).
- F. Firenze, A. Schenone, F. Acquarone, M. Gambaro, and F. Masulli, "Adaptive resolution analysis of multivariate medical images via unsupervised neural network based clustering", in *Proceedings of EUFIT'95 Third European Congress on Intelligent Techniques and Soft Computing*, pp. 1690–1694, Aachen (Germany), 1995. Verlag und Druck Mainz. (invited at the session on Image Processing by Soft Computing).
- F. Masulli, A. Sperduti, and D. Alfonso, "A hybrid pattern recognition scheme", in B. Bosacchi and J. Bezdek, editors, *Applications of Fuzzy Logic Technology III - SPIE Proceedings Series*, vol. 2761, pp. 154–162, Orlando, Florida, 1996. SPIE - Bellingam, WA, USA. (invited paper).
- A. Schenone, F. Masulli, and M. Artuso, "A neural bootstrap for the Possibilistic C-Mean algorithm", in F. C. Morabito, editor, *Advances in Intelligent Systems*, pp. 359–366, Amsterdam, 1997. IOS Press, (invited paper at the International Symposium on Intelligent Systems AMSE-ISIS'97, Reggio Calabria, Italy, September 11-13, 1997).
- F. Masulli and L. Studer, "Neuro-fuzzy system for chaotic time series forecasting", in B. Bosacchi, J. C. Bezdek, and D. B. Fogel, editors, *Applications of Soft Computing - SPIE Proceedings Series*, vol. 3165, pp. 205–215, San Diego, CA, 1997. SPIE - Bellingam, WA, USA (invited paper).
- Gb. Cicioni and F. Masulli, "Computational intelligence in hydroinformatics: A review", in M. Marinaro and R. Tagliaferri, editors, *Neural Nets WIRN Vietri-99*, pp. 41–59, 1999. Springer, London, (invited review).
- F. Masulli, "Natural Computing and Bioinformatics", in *SETIT 2012 6th International*

Conference: Sciences of Electronic, Technologies of Information and Telecommunications, March 21-24, 2012, Sousse, Tunisia, (invited tutorial - in press), SETIT 2012 Best Tutorial Award.

- F. Masulli, "Tracking Time-Evolving Data Streams and an Application to Short-Term Urban Traffic Flow Forecasting", 5th International Conference on Reliability, Infocom Technology and Optimization (ICRITO2016), Sep 7-9, 2016, Amity University, Noida, India.

Refereed Conference Proceedings

- F. Masulli, M. Straforini, and G. Sandini, "A stereo algorithm for flat objects", in V. Cantoni, S. Levialdi, and G. Musso, editors, *Image Analysis and Processing II*, pp. 129–136. Plenum Publishing Corporation, 1986.
- O. Martinoli, F. Masulli, and M. Riani, "Metric and structural aspects of pattern codes", in J. Rose, editor, *Cybernetics and Systems: Present and Future*, vol. 1, pp. 393–397, Lytham St. Annes (England), 1987. Thales Publications Ltd.
- F. Masulli, F. Carlini, M. T. Tuccio, and G. A. Oliva, "Automated collection of eye movements data and interactive analysis of eye fixations", in J. Rose, editor, *Cybernetics and Systems: Present and Future*, vol. 1, pp. 389–392, Lytham St. Annes (England), 1987. Thales Publications Ltd.
- O. Martinoli, F. Masulli, and M. Riani, "Metric and structural aspects of pattern codes", in V. Cantoni, V. Di Gesù, and S. Levialdi, editors, *Image Analysis and Processing II*, pp. 287–293. Plenum Publishing Corporation, 1988.
- M. Riani and F. Masulli, "Towards a neural model of perceptual alternation", in G. E. Lasker, editor, *Advances in System Research and Cybernetics*, pp. 158–164, Windsor, 1989. IIASSRC.
- M. Riani and F. Masulli, "Modeling perceptual alternation by using ANNs", in E. R. Caianiello, editor, *Second Italian Workshop on Parallel Architectures and Neural Networks*, pp. 43–50, Singapore, 1990. World Scientific Publisher Co.
- F. Masulli, M. Riani, and E. Simonotto, "Neural network models of perceptual alternation of ambiguous patterns", in V. Cantoni, L. P. Cordella, S. Levialdi, and G. Sanniti di Baja, editors, *Progress in Image Analysis and Processing*, pp. 751–758, Singapore, 1990. World Scientific Publisher Co.
- F. Masulli, M. Riani, and E. Simonotto, "A multilayer neural network modelling the perceptual reversal of ambiguous patterns", in M. Caudill, editor, *Proceedings of the International Joint Conference on Neural Networks*, Washington D. C., 1990 (IJCNN-90-WASH-DC), vol. 1, pp. 185–188, Hillsdale, 1990. Lawrence Erlbaum Associated Inc.
- R. Battiti and F. Masulli, "BFGS optimization for faster and automated supervised learning", in B. Widrow and B. Angeniol, editors, *International Neural Network Conference, INNC 90 PARIS (International Neural Network Society and IEEE)*, vol. 2, pp. 757–760, Dordrecht, 1990. Kluwer Academic Publishers.
- M. Riani and F. Masulli, "Stochastic dynamics and input dimensionality in a two-layer neuronal network for modelling multistable perception", in B. Widrow and B. Angeniol, editors, *International Neural Network Conference, INNC 90 PARIS (International Neural Network Society and IEEE)*, vol. 2, pp. 1019–1022, Dordrecht, 1990. Kluwer Academic Publishers.
- F. Masulli, M. Riani, and E. Simonotto, "Modelling multistable perception by multilayer networks: Stochastic and dynamic properties", in E. R. Caianiello, editor,

Third Italian Workshop on Parallel Architectures and Neural Networks, pp. 125–133, Singapore, 1990. World Scientific Publisher Co.

- E. Simonotto, M. Riani, and F. Masulli, “Three neural network models of perception of ambiguous figures: A comparison”, in C. Frediani, editor, Cybernetics and Biophysics Italian Conference, vol. 31, pp. 299–304. SIF Conference Proceedings, 1991.
- M. Riani, F. Masulli, and E. Simonotto, “Perceptual alternation of ambiguous patterns: A model based on an artificial neural network”, in S. K. Roger, editor, Application of Artificial Neural Networks II - SPIE Proceedings Series, vol. 1469, pp. 166–177, Orlando, Florida, 1991. SPIE - Bellingam, WA, USA.
- F. Masulli, M. Riani, E. Simonotto, and F. Vannucci, “Boltzmann distributions and neural networks: Models of unbalanced interpretations of reversible patterns”, in D. W. Ruck, editor, Science of Artificial Neural Networks SPIE Proceedings Series, vol. 1710, pp. 267–277, Orlando, Florida, 1992. SPIE - Bellingam, WA, USA.
- F. Masulli, F. Vannucci, F. Casalino, M. Garcia, F. Pasini, and M. Penna, “Neural methods for handwritten character recognition”, in G. Marcone and G. Orlandi, editors, Proceedings of the First Italian Workshop on Digital Image Processing by Neural Networks, pp. 43–48, Rome, Italy, 1993. Fondazione Bordoni.
- F. Masulli, F. Casalino, and F. Vannucci, “Bayesian properties and performances of adaptive fuzzy systems in pattern recognition problems”, in M. Marinaro and P. G. Morasso, editors, Proceedings of the European Conference on Artificial Neural Networks, ICANN-94, pp. 189–192, Sorrento, Italy, 1994. Springer.
- F. Casalino, F. Masulli, A. Sperduti, and F. Vannucci, “Semantic phase transition in a classifier based on an adaptive fuzzy system”, in Proceedings of the Third IEEE International Conference on Fuzzy Systems, IEEE-FUZZ94, vol. 2, pp. 808–812, Orlando, FL, USA, 1994. IEEE.
- F. Masulli, F. Casalino, R. Caviglia, and L. Papa, “Comparison of statistical methods and fuzzy systems in atmospheric pressure wave prediction”, in S. K. Roger and D. W. Ruck, editors, Applications and Science of Artificial Neural Networks - SPIE Proceedings Series, vol. 2492, pp. 1050–1061, Orlando, Florida, 1995. SPIE - Bellingam, WA, USA.
- F. Casalino, F. Masulli, and A. Sperduti, “Rule specialization and semantic phase transition in the adaptive fuzzy system”, in N. C. Steele, editor, Proceedings of the ICSC International Symposium on Fuzzy Logic, pp. B87– B92, Zurich (Switzerland), 1995. ICSC Academic Press - Millet-Alberta, Canada.
- F. Casalino, F. Masulli, R. Caviglia, and L. Papa, “Atmospheric pressure wave forecasting through fuzzy systems”, in M. Marinaro and R. Tagliaferri, editors, Neural Nets WIRN Vietri-95, pp. 266–271, Singapore, 1996. World Scientific.
- B. Bayraktar, S. Vurgun, E. Alpaydin, and F. Masulli, “A comparison of fuzzy neural networks with radial basis functions and multi-layer perceptrons for handwritten digit recognition”, in H. A. Guverin, K. Oflazer, V. Akman, and S. Kocabas, editors, TAINN’95 The Fourth Turkish Symposium on Artificial Intelligence and Neural Networks, pp. 75–85, Gebze Kocaeli, Turkey, 1995. Tubitak.
- M. Castellano, F. Masulli, and M. Penna, “Signal/background classification by adaptive fuzzy systems in HEP”, in A. Bonarini, D. Mancini, F. Masulli, and A. Petrosino, editors, New Trends in Fuzzy Logic, pp. 257–266, Singapore, 1996. World Scientific, (listed in D. Dubois, H. Prade, S. Sessa Recent Literature, Fuzzy Sets and Systems 91 (1997) 409–413).
- R. Parenti and F. Masulli, “Drive-train for electric/hybrid vehicles improved by soft-computing”, in P. G. Anderson and K. Warwick, editors, Proceedings of the

International ICSC Symposium on Industrial Intelligent Automation (IIA'96) and Soft Computing (SOCO'96), Reading, England, pp. A162–A198, Millet Alberta, Canada, 1996. ICSC.

- D. Alfonso, F. Masulli, and A. Sperduti, “Competitive learning in a classifier based on an adaptive fuzzy system”, in P. G. Anderson and K. Warwick, editors, Proceedings of the International ICSC Symposium on Industrial Intelligent Automation (IIA'96) and Soft Computing (SOCO'96), Reading, England, pp. C2–C8, Millet Alberta, Canada, 1996. ICSC.
- F. Masulli and M. Penna, “Improving learning speed and generalization in multi-layer perceptrons through principal component analysis”, in S. K. Roger and D. W. Ruck, editors, Applications and Science of Artificial Neural Networks II - SPIE Proceedings Series, vol. 2790, pp. 85–95, Orlando, Florida, 1996. SPIE - Bellingham, WA, USA.
- M. Castellano, F. Masulli, and M. Penna, “Fuzzy systems in High Energy Physics”, in B. Bosacchi and J. Bezdek, editors, Applications of Fuzzy Logic Technology III - SPIE Proceedings Series, vol. 2761, pp. 162–171, Orlando, Florida, 1996. SPIE - Bellingham, WA, USA.
- M. Marinaro, F. Masulli, and D. Oricchio, “Proof of the universal approximation of a set of fuzzy functions”, in M. Marinaro and R. Tagliaferri, editors, Neural Nets - WIRN Vietri-96, Proceedings of WIRN'96 - 8th Italian Workshop on Neural Nets, pp. 132–136, London, 1997. Springer, Also, International Institute for Advanced Scientific Studies - Eduardo Caianiello - Internal Report IIASS-96-07.
- L. Studer and F. Masulli, “Shaping a neuro-fuzzy systems for chaotic time series forecasting”, in N. Steele, editor, Proceedings of ISFL'97 Second International ICSC Symposium on Fuzzy Logic and Applications, pp. 183– 188, Zurich (Switzerland), 1997.
- F. Masulli, P. Bogus, A. Schenone, and M. Artuso, “Fuzzy clustering methods for the segmentation of multivariate images”, in M. Mares, R. Mesia, V. Novak, J. Ramik, and A. Stupnanova, editors, Proceedings of the 7th International Fuzzy Systems Association Word Congress IFSA'97, vol. III, pp. 123–128, Prague, 1997. Academia.
- L. Studer and F. Masulli, “Neuro-fuzzy systems and chaotic time series forecasting”, in Proceedings of European Symposium on Intelligent Techniques, pp. 254–257, Bari, Italy, 1997. ERUDIT Service Center, Aachen, Germany.
- F. Masulli, M. Artuso, P. Bogus, and A. Schenone, “Application of possibilistic clustering to the segmentation of multivariate medical images”, in P. Blonda, M. Castellano, and A. Petrosino, editors, New Trends in Fuzzy Logic II - Proceedings of WILF'97, Italian Workshop on Fuzzy Logic, pp. 105–112, Singapore, 1998. World Scientific.
- F. Masulli, P. Bogus, M. Artuso, and A. Schenone, “The maximum entropy principle and its application to the segmentation of multivariate medical images”, in R. Tadeusiewicz, L. Rutkowski, and J. Chojcan, editors, Proceedings of 3th Conference on Neural Networks and Their Applications, pp. 285–291, Kule L. Czestochowy, Poland, 1997. Polish Neural Network Society.
- R. Parenti, F. Masulli, and L. Studer, “Control of non-linear process by neural networks: Benefits using the Takens-Mané theorem”, in Proceedings of the ICSC Symposium on Intelligent Industrial Automation, IIA'97, pp. 44–50, Millet, Canada, 1997. ICSC.
- N. Giusti, F. Masulli, and A. Sperduti, “Competitive and hybrid neuro-fuzzy models for supervised classification”, in Proceedings of 1997 IEEE International Conference

- on Neural Networks, INNC'97, pp. 516–519, Huston, USA, 1997. IEEE.
- F. Masulli, P. Bogus, A. Schenone, and M. Artuso, “Application of MEP- based Fuzzy Clustering to the segmentation of multivariate medical images”, in D. Mancini, M. Squillante, and A. Ventre, editors, *New Trends in Fuzzy Systems - Proceedings of the International Joint Workshop on Current Issues on Fuzzy Technologies/ Methods and Environments for Planning and Programming*, pp. 266–277, Napoli (Italy), 1998. World Scientific, Singapore.
 - P. Bogus and F. Masulli, “Fuzzy and Possibilistic Approaches to Clustering”, in *CAI'98 Colloquia in Artificial Intelligence, Second Polish Conference on Theory and Applications of Artificial Intelligence*, pp. 189–198, Lodz (Poland), 1998. KBN.
 - F. Masulli, A. Schenone, and A. M. Massone, “Application of the possibilistic clustering to the segmentation of multimodal medical images”, in E. C. Ifeachor, A. Sperduti, and A. Starita, editors, *Proceedings of the Third International conference on Neural Networks and Expert systems in Medicine and Healthcare*, pp. 241–249, Pisa (Italy), 1998. World Scientific, Singapore.
 - M. Corte, F. Masulli, M. Riani, M. Pardo, G. Faglia, and G. Sberveglieri, “Reliability neuro-control of an array of sensors by cross-monitoring of working-state”, in F. Masulli and R. Parenti, editors, *Proceedings of the third ICSC Symposia on Intelligent Industrial Automation (IIA'99) and Soft Computing (SOCO'99)*, Genova, pp. 328–334, Millet, Canada, 1999. ICSC.
 - G. Valentini and F. Masulli, “NEUROObjects: A set of library classes for neural networks development”, in F. Masulli and R. Parenti, editors, *Proceedings of the third ICSC Symposia on Intelligent Industrial Automation (IIA'99) and Soft Computing (SOCO'99)*, Genova, pp. 184–190, Millet, Canada, 1999. ICSC.
 - P. Bogus, A. Massone, and F. Masulli, “A Simulated Annealing C-Means Clustering Algorithm”, in F. Masulli and R. Parenti, editors, *Proceedings of the third ICSC Symposia on Intelligent Industrial Automation (IIA'99) and Soft Computing (SOCO'99)*, Genova, pp. 534–540, Millet, Canada, 1999. ICSC.
 - Parenti. R., C. Penno, D. Baratta, F. Masulli, and M. Tausel, “A very high speed industrial neural network classification system based on custom VLSI implementation”, in F. Masulli and R. Parenti, editors, *Proceedings of the third ICSC Symposia on Intelligent Industrial Automation (IIA'99) and Soft Computing (SOCO'99)*, Genova, pp. 443–449, Millet, Canada, 1999. ICSC.
 - F. Masulli, A. M. Massone, and A. Schenone, “Segmentation of multimodal medical volumes using evolutionary clustering”, in *Soft Computing, Multimedia, and Image processing, Proceedings of WAC'2000 World Automation Congress*, pp. 215–220, TSI Press, Albuquerque, NM, USA, 2000.
 - Gb. Cicioni and F. Masulli, “Rainfall forecasting in the Tiber basin using a predictor based on singular spectrum analysis and neural networks”, in *Proceedings of Hydroinformatics 2000, CDROM*, Iowa Institute of Hydraulic Research, Iowa City, Iowa (USA), 2000.
 - F. Masulli and G. Valentini, “Parallel non linear dichotomizers”, in *Proceedings of IJCNN'2000, The IEEE-INNS-ENNS Int. Joint Conf. on Neural Networks*, pp. 29–33, IEEE, Piscataway, NJ, USA, 2000.
 - F. Masulli and G. Valentini, “Comparing Decomposition Methods for Classification”, in *Proceedings of KES'2000-International Conference on Knowledge-Based Intelligent Engineering Systems and Allied Technologies*, vol. 2, pp. 788–792, IEEE, Piscataway, NJ, USA.
 - A. M. Massone, L. Studer, F. Masulli, and G. Valentini, “Pattern Recognition in RICH Counters Using the Possibilistic C-Spherical Shell Algorithm”, in *Proceedings of*

- KES'2000-International Conference on Knowledge-Based Intelligent Engineering Systems and Allied Technologies, vol. 2, pp. 791–795, IEEE, Piscataway, NJ, USA.
- A. M. Massone, F. Masulli, and A. Petrosino, “Fuzzy Clustering Algorithms on LANDSAT images for detection of waste areas: A Comparison”, in *Advances in Fuzzy Systems and Intelligent Technologies*, pp. 165–175, Shaker, Maastricht (NL), 2000.
 - O. Bartalini, M. Capogni, C. Gaulart, F. Masulli, A. M. Massone and A. Zucchiatti, “Clustering algorithms for the reconstruction of events in the GRAAI segmented BGO calorimeter”, in *New Computing Techniques in Physics Research VI - AIHENP99 Sixth International Workshop on Software Engineering Artificial Intelligence and Expert Systems*, pp. 201–205, Parisianou S. A., Athens (Greece), 2000.
 - F. Masulli, and G. Valentini, “Quantitative Evaluation of Dependence among Outputs in ECOC Classifiers Using Mutual Information Based Measures”, in *Proceedings of the International Joint Conference on Neural Networks IJCNN'01*, pp. 784–789, vol. 2, IEEE, Piscataway, NJ, USA, 2001.
 - F. Masulli, D. Baratta, Gb. Cicioni, Gb. and L. Studer, “Daily Rainfall Forecasting using an Ensemble Technique based on Singular Spectrum Analysis”, in *Proceedings of the International Joint Conference on Neural Networks IJCNN'01*, pp. 263–268, vol. 1, IEEE, Piscataway, NJ, USA, 2001.
 - F. Beltrame, G. DeLeo, M. Fato, F. Masulli, and A. Schenone, “Three dimensional visualization and navigation tool for diagnostics and surgical planning applications”, in *Proceedings of SPIE - Medical Imaging 2001 - Visualization, Display and Image-Guided Procedure*, pp. 507–514, vol. 4319, SPIE, Bellingam, Washington, USA, 2001.
 - P. Rosso, F. Masulli, D. Buscaldi, “Word Sense Disambiguation with and without Supervision”, in *Proceedings of XI International Computing Conference*, J.H.S Azuela, C.A. Ibaanez, M.A. Mentado, A. Gelbukh (Editors), Vol. 2, pp. 531–540, IOS Press, Mexico City, 2002.
 - P. Bogus, A. M. Massone, and F. Masulli, “Simulated Annealing C-means Clustering Algorithm Convergence Proof”, in *Neural Networks and Soft Computing - Proceedings of the Sixth International Conference on Neural Network and Soft Computing*, Zakopane, Poland, 2002 Polish Neural Networks Society and IEEE Neural Networks Council, L. Rutkowski and J. Kacprzyk (Editors), pp. 590-595, *Advances in Soft Computing Series*, Springer-Verlag, Heidelberg, Germany, 2003.
 - P. Bogus, K. Lewandowska, and F. Masulli, “Regularization background of clustering algorithms”, in *Neural Networks and Soft Computing - Proceedings of the Sixth International Conference on Neural Network and Soft Computing*, Zakopane, Poland, 2002 Polish Neural Networks Society and IEEE Neural Networks Council, L. Rutkowski and J. Kacprzyk (Editors), pp. 584-589, *Advances in Soft Computing Series*, Springer-Verlag, Heidelberg, Germany, 2003.
 - F. Masulli, and S. Rovetta, “An ensemble approach to variable selection for classification of DNA microarray data”, in *Proceedings of the International Joint Conference on Neural Networks IJCNN'03*, Portland, Oregon, M. Hasselmo (Editor) pp. 3089–3094, IEEE Neural Network Society, Piscataway, NJ, USA, 2003.
 - F. Masulli, and S. Rovetta, “The Graded Possibilistic Clustering Model”, in *Proceedings of the International Joint Conference on Neural Networks IJCNN'03*, Portland, Oregon, M. Hasselmo (Editor) pp. 791–796, IEEE Neural Network Society, Piscataway, NJ, USA, 2003.
 - F. Masulli, and S. Rovetta, “HLA Typing Using a Fuzzy Approach”, in *Proceedings of*

- the International Joint Conference on Neural Networks IJCNN'04, Budapest, Hungary, pp. 3235–3240, IEEE Neural Network Society, Piscataway, NJ, USA, 2004.
- D. Buscaldi, P. Rosso, and F. Masulli, “The upv-unige-CIAOSENSO WSD system”, in Rada Mihalcea and Phil Edmonds (Ed.s), *Senseval-3: Third International Workshop on the Evaluation of Systems for the Semantic Analysis of Text*, pp. 77–82, Association for Computational Linguistics, Barcelona, Spain, 2004.
 - L. Calcagno, D. Buscaldi, P. Rosso, J.M. Soriano Gomez, F. Masulli, S. Rovetta, “Comparison of Indexing Techniques based on Stems, Synsets, Lemmas and Term Frequency Distribution”, *Proceedings of the III Jornadas en Tecnologia del Habla*, Valencia, Spain, 17-19 Nov 2004.
 - G.B. Ferrara, L. Delfino, F. Masulli, S. Rovetta, S. Sensi, “Analysis of Oligonucleotide Microarray Images using a Fuzzy Sets Approach in HLA Typing”, in B. Apolloni, M. Marinaro, R. Tagliaferri (Ed.s), *Biological and Artificial Intelligence Environments*, Springer-Verlag, pp. 53-61, Heidelberg (Germany), 2005.
 - M. Filippone, F. Masulli, S. Rovetta, “ERAF: A R Language Package for Regression and Forecasting”, in B. Apolloni, M. Marinaro, R. Tagliaferri (Ed.s), *Biological and Artificial Intelligence Environments*, Springer-Verlag, pp. 165-173, Heidelberg (Germany), 2005.
 - S. Rovetta, F. Masulli, M. Filippone, “Soft Rank Clustering”, in B. Apolloni, M. Marinaro, R. Tagliaferri (Ed.s), *Neural Nets Wirm Vietri-05*, Springer-Verlag, pp. 77–82, Heidelberg (Germany), 2005.
 - F. Masulli, S. Rovetta, “A New Approach to Hierarchical Clustering for the Analysis of Genomic Data”, *Proceedings of the International Joint Conference on Neural Networks 2005*, Montreal - Canada, IEEE Computational Intelligence Society, Piscataway, NJ, USA.
 - K. Honda, H. Ichihashi, F. Masulli, S. Rovetta, “Graded Possibilistic Approach to Variable Selection in Linear Fuzzy Clustering”, *Proceedings of 2005 IEEE International Conference on Fuzzy Systems*, IEEE Computational Intelligence Society, Piscataway, NJ, USA.
 - M. Filippone, F. Masulli, S. Rovetta, “Supervised Classification and Gene Selection Using Simulated Annealing”, *Proceedings of the International Joint Conference on Neural Networks 2006*, pp. 617-625, Vancouver - Canada, IEEE Computational Intelligence Society, Piscataway, NJ, USA.
 - M. Filippone, F. Masulli, S. Rovetta, “Gene Expression Data Analysis in the Membership Embedded Space: A Constructive Approach”, pp. 617-625, *Applied Artificial Intelligence*, Da Ruan et al., Ed.s, World Scientific, Singapore, 2006.
 - E. Canestrelli, P. Canestrelli, M. Corazza, M. Filippone, S. Giove, F. Masulli, “Local Learning of Tide Level Time Series using a Fuzzy Approach”, *Proceedings of the International Joint Conference on Neural Networks 2007*, Orlando, FL, USA, IEEE Computational Intelligence Society, Piscataway, NJ, USA.
 - M. Filippone, F. Masulli, S. Rovetta, L. Zini, “Comparing Fuzzy Approaches to Biclustering”, *CIBB 2008: Computational Intelligence Methods for Bioinformatics and Biostatistics (Vietri-Italy)*, *Proceedings of DMI*, v. 2, Univ. Salerno, Italy, 2008.
 - M. Filippone, F. Masulli, S. Rovetta, “An Experimental Comparison of Kernel Clustering Methods”, in B. Apolloni, S. Bassis, M. Marinaro (Ed.s), *Proceeding of the Conference on New Directions in Neural Networks: 18th Italian Workshop on Neural Networks: WIRN 2008*, Series *Frontiers in Artificial Intelligence and Applications*; Vol. 193, pp. 118-126, IOS Press, Amsterdam, 2009.
 - F. Masulli, M. Monville, S. Rovetta, G. Russo, “Prediction of Novel Biomarkers in

- Prostate Cancer", CIBB 2009: Computational Intelligence Methods for Bioinformatics and Biostatistics, Proceedings of DMI, v. 3, DMI Univ. Salerno, Italy, 2009.
- V.N.M. Aradhya, F. Masulli, S. Rovetta, "Biclustering of Microarray Data based on Modular Singular Value Decomposition", CIBB 2009: Computational Intelligence Methods for Bioinformatics and Biostatistics, Proceedings of DMI, v. 3, DMI Univ. Salerno, Italy, 2009.
 - F. Masulli, A. Parini, S. Rovetta, G. Russo, "Searching for microRNA Prostate Cancer Target Genes", Proceedings of the International Joint Conference on Neural Networks 2009, Atlanta, GA, USA, pp. 2021-2026, IEEE Computational Intelligence Society, Piscataway, NJ, USA, 2009.
 - S. Rovetta, M. Filippone, F. Masulli, "The discriminating power of random features", Proceedings of the 19th Italian Workshop on Neural Networks: WIRN 2009, pp. 3–10, IOS Press, Amsterdam, 2009. ISBN - ISSN:0922-6389, 978-1-60750-072-8
 - E. Nosova, R. Tagliaferri, F. Masulli, S. Rovetta, Biclustering by resampling, Proceedings of the CIBB 2010: Computational Intelligence Methods for Bioinformatics and Biostatistics (Palazzo Comitini, Palermo, Italy), ICAR-CNR Palermo, Italy, ISBN 978-88-95272-87-(memory drive), 2010.
 - S. Rovetta, F. Masulli, M.E. Monville, G. Russo, "Context Analysis in microRNA Data: A Rosetta Stone Approach", in B. Apolloni, S. Bassis, F. C. Morabito (Ed.s), Neural Nets WIRN 2010, pp. 135-143, Series Frontiers in Artificial Intelligence and Applications, vol. 226 IOS Press, Amsterdam, 2011.
 - S. Rovetta, F. Masulli, "Spectral indexes of quality, diversity and stability in fuzzy clustering", in B. Apolloni, S. Bassis, F. C. Morabito (Ed.s), Neural Nets WIRN 2011, Series Frontiers in Artificial Intelligence and Applications, Vol. 234, pp. 112-119, IOS Press, Amsterdam, 2011.
 - H. Mahmoud, F. Masulli, S. Rovetta, "A Fuzzy Clustering Segmentation Approach for Feature-Based Medical Image Registration", Proceedings of the CIBB 2012, 9-th International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics, Houston, Tx, USA, CIBB Proceedings Series, ISBN 978-88-906437-1-2 (memory drive), 2012.
 - S. Bulotta, H. Mahmoud, F. Masulli, E. Palummeri, S. Rovetta, "Fall Detection Using an Ensemble of Learning Machines", in B. Apolloni, S. Bassis, A. Esposito, F. C. Morabito (Ed.s), Neural Nets and Surroundings, 22nd Italian Workshop on Neural Nets, WIRN 2012, May 17-19, Vietri sul Mare, Salerno, Italy Springer, Series: Smart Innovation, Systems and Technologies, Vol. 19, pp. 81-90, ISBN 978-3-642-35466-3, 2013.
 - H. Mahmoud, F. Masulli, S. Rovetta, G. Russo, "Community Detection in Protein-Protein Interaction Networks", Proceedings of the CIBB 2013, 10-th International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics, Nice, France, CIBB Proceedings Series (memory drive), ISBN: 978-88-906437-2-9, 2013.
 - R. Rosasco, H. Mahmoud, F. Masulli, S. Rovetta, "A Quality-Driven Ensemble Approach to Automatic Model Selection in Clustering", in B. Apolloni, S. Bassis, A. Esposito, F. C. Morabito (Ed.s), Neural Nets and Surroundings, 23rd Italian Workshop on Neural Nets, WIRN 2013, Vietri sul Mare, Salerno, Italy, Springer, Series: Smart Innovation, Systems and Technologies, pp. 53-61, 2014.
 - H. Mahmoud, F. Masulli, S. Rovetta, G. Russo, "Exploiting Quantitative and Semantic Information for Characterizing Protein-Protein Interactions Networks", in C. Di Serio, P. Lio', S. Richardson, R. Tagliaferri (Eds.), Proceedings of the CIBB

- 2014, 11-th International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics, University of Cambridge, Cambridge, CIBB Proceedings Series (memory drive), pp.162–166, ISBN: 9788890643743, 2014.
- M. Amina, F. Masulli and S. Rovetta, “Genetic Algorithm-Based Neural Error Correcting Output Classifier”, Proceedings of the 2014 IEEE Symposium on Computational Intelligence in Ensemble Learning, Orlando, FL, USA, pp. 62–69, IEEE Computational Intelligence Society, Piscataway, NJ, USA, 2014, IEEE Catalog Number: CFP14ZAD-86, ISBN: 978-1- 4799-4513-9.
 - H. Mahmoud, F. Masulli, M. Resta, S. Rovetta, “Hubs and Communities Identification and Stability Evaluation in Evolving Financial Networks”, in S. Bassis, A. Esposito, F. C. Morabito (Ed.s), Recent Advances of Neural Network Models and Applications, 23nd Italian Workshop on Neural Nets, WIRN 2013, Vietri sul Mare, Salerno, Italy Springer, Series: Smart Innovation, Systems and Technologies, Volume 37, 2015, Pages 93-101 (2015).
 - S. Rovetta, F. Masulli, “Online spectral clustering and the neural mechanisms of concept formation”, in S. Bassis, A. Esposito, F. C. Morabito (Ed.s), Recent Advances of Neural Network Models and Applications, 23nd Italian Workshop on Neural Nets, WIRN 2013, Vietri sul Mare, Salerno, Italy Springer, Series: Smart Innovation, Systems and Technologies, volume 37, 2015, Pages 61-72 (2015).
 - Amr Abdullatif, Stefano Rovetta, Francesco Masulli, “Layered Ensemble Model for Short-Term Traffic Flow Forecasting with Outlier Detection”, IEEE 2nd International Forum on Research and Technologies for Society and Industry Leveraging a better tomorrow (RTSI), 2016.
 - B.S. Harish, S V. Aruna Kumar , F. Masulli, S. Rovetta, “Adaptive Initialization of Cluster Centers using Ant Colony Optimization: Application to Medical Images”. In Proceedings of the 6th International Conference on Pattern Recognition Applications and Methods (ICPRAM 2017), pages 591–598, SCITEPRESS Science and Technology Publications, Lda, 2017.
 - F. A. Cardillo, F. Masulli, S. Rovetta, “Automatic Approaches for CE-MRI Examination of the Breast: A Survey”. IEEE iThings / GreenCom / CPSCCom / SmartData 2017: 147-154
 - T. Valls Mataro, F. Masulli, S. Rovetta, A. Cabri, C. Traverso, E. Capris, S. Torretta, “An assistive mobile system supporting blind and visual impaired people when are outdoor:”, IEEE RTSI 2017: 1-6.
 - S. Banerjee, S. Mitra, F. Masulli, S. Rovetta, “Deep Radiomics for Brain Tumor Detection and Classification from Multi-Sequence MRI”, CoRR abs/1903.09240 (2019)
 - S. Rovetta, Z. Mnasri, F. Masulli, A. Cabri, “Emotion recognition from speech signal using fuzzy clustering”, 11th Conference of the European Society for Fuzzy Logic and Technology (EUSFLAT 2019), Atlantis Studies in Uncertainty Modelling, volume 1, pp. 120--127, Atlantis Press, 2019
 - Zied Mnasri, Stefano Rovetta, Francesco Masulli, “Feature Analysis for Emotional Content Comparison in Speech”, In: Ju Z., Yang L., Yang C., Gegov A., Zhou D. (eds) Advances in Computational Intelligence Systems. UKCI 2019. Advances in Intelligent Systems and Computing, vol 1043. Springer, Cham, (DOI https://DOI.org/10.1007/978-3-030-29933-0_41; Print ISBN Print ISBN 978-3-030-29932-3) 493--503 2019.
 - S. Rovetta, A. Cabri, F. Masulli, G. Suchacka, “Bot or not? a case study on bot recognition from web session logs”, in: Esposito A., Faundez-Zanuy M., Morabito F., Pasero E. (eds) Quantifying and Processing Biomedical and Behavioral Signals.

WIRN 2017 2017. Smart Innovation, Systems and Technologies, vol 103. Springer, Cham, (DOI https://doi.org/10.1007/978-3-319-95095-2_19; Print ISBN 978-3-319-95094-5) 197--206, 2019.

- S. Rovetta, F. Masulli, A. Cabri, "The "Probabilistic Rand Index": A Look from Some Different Perspectives", Neural Approaches to Dynamics of Signal Exchanges, Springer Nature Singapore (DOI 10.1007/978-981-13-8950-4, Hardcover ISBN 978-981-13-8949-8) 95--105, 2020.
- Mnasri, Z., Rovetta, S., Masulli, F., "Audio surveillance of roads using deep learning and autoencoder-based sample weight initialization", 20th IEEE Mediterranean Electrotechnical Conference, MELECON 2020 - Proceedings, art. no. 9140594, pp. 99-103, 2020.
- Rovetta, S., Mnasri, Z., Masulli, F., "Detection of Hazardous Road Events from Audio Streams: An Ensemble Outlier Detection Approach", IEEE Conference on Evolving and Adaptive Intelligent Systems, 2020-May, art. no. 9122704, 2020.
- Rovetta, S., Suchacka, G., Cabri, A., Masulli, F., "Feature selection: A multi-objective optimization approach, 6th International Conference on Optimization and Applications, ICOA 2020, 2020.
- Rovetta, S., Mnasri, Z., Masulli, F., "Emotional Content Comparison in Speech Signal Using Feature Embedding", Smart Innovation, Systems and Technologies, 184, pp. 45-55, 2021.
- Mnasri, Z., Rovetta, S., Masulli, F. "A Novel Pitch Detection Algorithm Based On Instantaneous Frequency", European Signal Processing Conference, EUSIPCO 2021: 16-20, 2021
- Mnasri, Z. Rovetta, S., Masulli, F., Cabri, A., "Dealing with Uncertainty in Anomalous Audio Event Detection Using Fuzzy Modeling", 20th UK Workshop on Computational Intelligence, UKCI 2021: 496-507, 2021.
- Rovetta, S., Mnasri, Z., Masulli, F., Cabri A., "Anomaly detection based on interval-valued fuzzy sets: Application to rare sound event detection", CEUR Workshop Proceedings, WILF, 2021.
- D. Greco, F. Masulli, S. Rovetta, A. Cabri and D. Daffonchio, "A Cost-Effective Eye-Tracker for Early Detection of Mild Cognitive Impairment," 2022 IEEE 21st Mediterranean Electrotechnical Conference (MELECON), Palermo, Italy, 2022, pp. 1141-1146, doi: 10.1109/MELECON53508.2022.9843008.
- A. Cabri, F. Masulli, S. Rovetta, M. Mohsin, "Recovering Critical Raw Materials from WEEE using Artificial Intelligence", The 21st International Conference on Modelling and Applied Simulation (MAS), 19th International Multidisciplinary Modeling & Simulation Multiconference, pp. 1–5, doi: 10.46354/i3m.2022.mas.023, 2023
- A. Cabri, S. Rovetta, F. Masulli, A. Sharma, P.G. Meo, M. Magliulo, "Remote Healthcare System Based on AIoT" In: Bellotti, F., et al. Applications in Electronics Pervading Industry, Environment and Society. ApplePies 2023. Lecture Notes in Electrical Engineering, vol 1110. Springer, Cham. https://doi.org/10.1007/978-3-031-48121-5_30, 2023.
- Z. Mnasri, S. Rovetta and F. Masulli, "Anomalous Sound Event Detection Based on One-Class Classification Using Variational Autoencoders and Interval Type-2 Fuzzy Sets," 2023 31st European Signal Processing Conference (EUSIPCO), Helsinki, Finland, 2023, pp. 171-175, doi: 10.23919/EUSIPCO58844.2023.10290085, 2023.
- M. Mohsin, X. Zeng, S. Rovetta, F. Masulli, "Measuring the Recyclability of Electronic Components to Assist Automatic Disassembly and Sorting Waste Printed Circuit Boards", CoRR abs/2406.16593 (2024).

- M. Mohsin, S. Rovetta, F. Masulli, A. Cabri, "Virtual Mines - Component-level recycling of printed circuit boards using deep learning", CoRR abs/2406.17162 (2024).

Abstracts and National Conferences

- P. Corvisiero, F. Masulli, and A. Zucchiatti, "Calcolo di Monte Carlo per la distribuzione di percorso di elettroni in NaI", Laboratori Nazionali di Frascati, vol. 79/2(r), pp. 1–9, 1979.
- F. Masulli and P. L. Testa, "Strutturazione del software per esperienze di psicofisica gestite da minicalcolatore", in M. Barbi and V. Passarelli, editors, Proceedings V Congresso Nazionale di Cibernetica e Biofisica, pp. 19–24, Pisa, 1979. GNCCB-CNR.
- M. Riani, F. Masulli, and I. Radilova, "The effect of increasing complexity on the reversal of ambiguous patterns", in III European Conference on Visual Perception, p. 63, Brighton, 1980, (Abstract).
- M. Anghinolfi and F. Masulli, "Software di base per la gestione di un CAMAC da minicomputer", Istituto Nazionale di Fisica Nucleare, vol. BE- 81/5, pp. 1–10, 1981.
- F. Masulli, "Un package software per utenti CAMAC", in Proceedings II Simposio Nazionale DECUS-Italia, pp. 55–62, Firenze, 1981. DECUS- Italia.
- F. Masulli and M. Riani, "Alternanza percettiva e complessità nei patterns ambigui", in F. Rustichelli, editor, Proceedings VI Congresso Nazionale di Cibernetica e Biofisica, pp. 127–129, Perugia, 1981. GNCCB-CNR.
- F. Carlini and F. Masulli, "R. E. D. un sistema per la raccolta e la elaborazione dati di esperienze di psicofisica con caratteristiche di programmabilità", in F. Conti and S. Vallerga, editors, Proceedings VII Congresso Nazionale di Cibernetica e Biofisica, pp. 142–144, Camogli, 1983. GNCCB-CNR.
- M. Riani and F. Masulli, "Informazione strutturale e ambiguità percettiva", in F. Conti and S. Vallerga, editors, Proceedings VII Congresso Nazionale di Cibernetica e Biofisica, pp. 150–152, Camogli, 1983. GNCCB-CNR.
- F. Masulli and M. Straforini, "Un sistema di elaborazione di immagini per computer vision", in Proceedings II Simposio Nazionale Decus-Italia, pp. 37–61, Roma, 1985. Decus-Italia.
- F. Masulli, "Un sistema videografico modulare", in S. Chilleni and C. Frediani, editors, Proceedings VIII Congresso Nazionale di Cibernetica e Biofisica, pp. 237–240, Lipari, 1985. GNCCB-CNR.
- F. Carlini, F. Masulli, and M. T. Tuccio, "Acquisizione ed elaborazione dati di movimenti oculari", in S. Chilleni and C. Frediani, editors, Proceedings VIII Congresso Nazionale di Cibernetica e Biofisica, pp. 232–236, Lipari, 1985. GNCCB-CNR.
- A. Borsellino, F. Carlini, and F. Masulli, "Realizzazione di un libro elettronico di percezione visiva.", in S. Chilleni and C. Frediani, editors, Proceedings VIII Congresso Nazionale di Cibernetica e Biofisica, pp. 186–188, Lipari, 1985. GNCCB-CNR.
- M. Riani and F. Masulli, "Neuronal models of visual ambiguity", in W. Gerbino, editor, Fourth International Conference on Event Perception and Action, p. 158, Trieste, 1987, (Abstract).
- F. Masulli, P. Arrigo, and A. Galli, "Identification of protein structures using a neural network", in J. Nicoud, editor, Workshop on Industrial Application of Neural Networks, Ascona, Switzerland, 1991, (Abstract).

- F. Masulli, D. Sona, A. Sperduti, A. Starita, and G. Zaccagnini, "A system for the automatic morphological analysis of mediaeval manuscripts", in Proceedings of the 7th Biennial Conference of the International Graphonomics Society, pp. 104–105, London (Ontario - Canada), 1995, (abstract).
- F. Masulli, P. Bogus, A. Schenone, and M. Artuso, "Development of fuzzy clustering algorithms for a medical imaging decision support system", in A.M. Colla, E. Pessa, and R. Serra, editors, Proceedings of the Second Italian Workshop on Evaluation Criteria for Neural Networks Efficiency in Industry, pp. 41–46, Vietri sul Mare, Italy, 1996. IIASS International Institute for Advanced Scientific Studies.
- A. Schenone, F. Masulli, M. Artuso, and P. Bogus, "Comparison of fuzzy segmentation methods for volume definition in multimodal medical imaging", Computer Aided Surgery, vol. 2 - Abstracts from Computer Integrated Surgery 97, pp. SY–1009, 1997, (invited – abstract).
- F. Masulli and A. Sperduti, "Neuro-fuzzy models for OCR applications", in A. M. Colla, F. Masulli, and P. Morasso, editors, Proceedings of the 8th Biennial Conference of the International Graphonomics Society IGS'97, pp. 101–102, Genova, Italy, 1997. International Graphonomics Society, Nijmegen (Holland).
- Gb. Cicioni and F. Masulli, "Approccio alla previsione di altezze pluviometriche basato su analisi di componenti principali e sistemi fuzzy adattivi", in Atti XXVI Convegno di Idraulica e Costruzioni Idrauliche - Catania), vol. IV, pp. 27–38. CUECM, Catania (Italy), 1998.
- M. Marinaro, A. Petrosino, A. M. Massone, F. Masulli, and M. Riani, "Remote sensing image interpretation for environment resources mangement", in INFMeeting 1998, Proceedings of the National Conference on the Physics of Matter, Genova (Italy), 1998. INFM, (abstract).
- F. Masulli, "Straight lines detection in digital images by means of possibilistic clustering", in INFMeeting 1998, Proceedings of the National Conference on the Physics of Matter, Genova (Italy), 1998. INFM, (abstract).
- M. Marinaro, A. Petrosino, A. M. Massone, F. Masulli, and M. Riani, "Remote sensing image interpretation for environment resources mangement (tirth year of activity)", in INFMeeting 1999, Proceedings of the National Conference on the Physics of Matter, Genova (Italy), 1999. INFM, (abstract).
- M. Marinaro, A. Petrosino, A. M. Massone, F. Masulli, M. Riani, C. Minganti, and L. Campanelli, "Telerilevamento per il monitoraggio ambientale: il progetto TELEMA", in Atti della III Conferenza Nazionale Federazione delle Associazioni Scientifiche per le Informazioni Territoriali e Ambientali (ASITA), vol. II, pp. 905–910, Napoli, 1999.
- A. Schenone, A. M. Massone, and F. Masulli, "Advanced tools for aided surgery: the role of computational intelligence methods", in Abstract Collection of the USA-Italy Conference on Applied Neural and Cognitive Sciences, Boston, MA (USA), 1999, (Abstract). Also in MIT CogNet TM, The Cognitive and Brain Sciences Community Online (<http://cognet.mit.edu>).
- F. Masulli, S. Rovetta, and G. Valentini, "Machine Learning Methods in Bioinformatics", INFMeeting National Conference on the Physics of Matter, INFM, p. 147, Bari, Italy, 2002.
- M. Pardo, G. Sberveglieri, G. Valentini, and F. Masulli, "Advanced Pattern Recognition for Electronic Nose", INFMeeting National Conference on the Physics of Matter, INFM, p. 146, Bari, Italy, 2002.
- G. B. Ferrara, F. Masulli, C. Pera, S. Rovetta, and R. Sensi, "Fuzzy Modeling for HLA Typing", Proceedings of the Primo Workshop Nazionale sulla Bioinformatica

- AI*IA e SIREN, Siena, Italy, 2002.
- F. Masulli and S. Rovetta, "Ensembling and Clustering Approach to Gene Selection", in BITS 2004 - Bioinformatics Italian Society Meeting, Abstract n. 9, Padova, Italy, 2004.
 - F. Masulli, S. Rovetta, M. Filippone, Clustering Genomic Data in the Membership Embedding Space, in F. Masulli, R. Tagliaferri (Ed.s), CI-BIO Workshop on Computational Intelligence Approaches for the Analysis of Bioinformatics Data, Montral, Quebec, Canada, August 5, 2005, pp. 10-11, IEEE Computational Intelligence Society, Piscataway, NJ, USA, 2005.
 - F. Masulli, "Reti Neurali Artificiali e Analisi di Immagini Mediche", Atti VII Congresso Nazionale Associazione Italiana Tecnici Neuroradiologia, Salerno, Italy, pp. 101-111, ATRNR, 2005 (relazione invitata).
 - M. Filippone, F. Masulli, S. Rovetta, "Input Selection with Mixed Data Sets: A Simulated Annealing Wrapper Approach", CISI'06 – Conferenza Italiana Sistemi Intelligenti, Ancona, Italy, 27-29 Settembre 2006.
 - M. Filippone, F. Masulli, S. Rovetta, "Aggregating Memberships in Possibilistic Biclustering", in F. Masulli, R. Tagliaferri (Ed.s), CI-BIO 2007 Workshop on Computational Intelligence Approaches for the Analysis of Bioinformatics Data, Orlando, FL, August 17, 2007, pp. 9, IEEE Computational Intelligence Society, Piscataway, NJ, USA, 2007.
 - S. Rovetta, F. Masulli, M. Filippone, "Generating multidimensional embeddings based on fuzzy memberships", in BITS 2007 – Bioinformatics Italian Society Meeting, Abstract n. 101, Napoli, Italy, 2007.
 - F. Masulli, A.E.P. Villa, J. Iglesias, "Supporting the Bioinformatics Community in the OpenAdap.net framework", in Proceedings of BioinfoGRID Symposium 2007, Milano (Italy), 2007.
 - M. Filippone, F. Masulli, S. Rovetta, L. Zini, "Fuzzy Central Approaches to Biclustering", in Proceedings of NETTAB 2008, Network Tools and Applications in Biology, Varenna (Italy), 2008.
 - G. Russo, M. Boiano, F. Masulli, A. Giordano, "miRNAs and Cancer", in Proceedings of the 50-th Annual Meeting of the Italian Cancer Society, Naples (Italy), 2008.
 - F. Masulli, "Natural Computing, Bioinformatics and Systems Biology", in R. Tagliaferri E. Biganzoli (Ed.s), CI-BIO 2009: Computational Intelligence Approaches for the Analysis of Bioinformatics, Atlanta, Georgia, USA, IEEE Computational Intelligence Society, Piscataway, NJ, USA, 2009 (abstract).
 - F. Masulli, A. Parini, S. Rovetta, G. Russo, "Improving microRNA Prostate Cancer Target Genes Detection", Proceedings Sixth Annual Meeting of the Bioinformatics Italian Society BITS 2009, Genova, 10-13 March 2009, vol. 1, pp. 200-201, Libero di Scrivere, Genova (Italy), 2009.
 - C. Bonomini, S. Bulotta, N. Casiddu, B. Catania, G. Guerrini, F. Masulli, E. Palummeri, S. Rovetta, M. Veneziano, "Tecnologie dell'Informazione e Design in Ambient Assisted Living" in E. De Munari, G. Matrella, P. Ciampolini (Ed.s) AAL in Italia, primo libro bianco – foritaal: Ambient Assisted Living - III forum italiano, tgbook editore, Parma, pp. 45-49, 2012.
 - F. Masulli, S. Rovetta, G. Russo, "Bioinformatics of microRNAs in Cancer", 8-th Conference of Italian Researchers in the World, Houston 1/12/2012, pp. 68-69, 201 (abstract).
 - H. Mahmoud, F. Masulli, S. Rovetta, G. Russo, G. "Characterizing evolving protein communities", BITS 2014 - Bioinformatics Italian Society Meeting, Rome (Italy),

Technical Reports

- F. Masulli, A. M. Massone, and A. Schenone, "An evolution strategy approach to clustering and its application to the segmentation of multimodal medical volumes", Technical Report DISI-TR-99-11, Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova, ITALY, 1999.
- F. Masulli, Gb Cicioni, Gb. and L. Studer, L., "Discontinuous and Intermittent Signal Forecasting: A Hybrid Approach", Technical Report DISI-TR-00-04, Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova, ITALY, 2000.
- F. Masulli, G. Valentini, "Evaluating dependence among output errors in ECOC learning machines", Technical Report DISI-TR-01-05, Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova, ITALY, 2001.
- F. Masulli, G. Valentini, "Mutual information methods for evaluating dependence among outputs in learning machines", Technical Report DISI-TR01-03, Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova, ITALY, 2001.
- F. Masulli, S. Rovetta, "Soft Transition from Probabilistic to Possibilistic Fuzzy Clustering", Technical Report DISI-TR-02-03, Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova, ITALY, 2002.
- D. Baratta, F. Masulli, Gb. Cicioni, L. Studer, "Forecasting the Daily Rainfall in the Tiber River Basin using an Ensemble Technique based on SSA", Technical Report DISI-TR-02-06, Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova, ITALY, 2002.
- F. Masulli, S. Rovetta, "An ensemble approach to variable selection for classification of DNA microarray data", Technical Report DISI-TR-03-04, Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova, ITALY, 2003.
- M. Filippone, F. Masulli, S. Rovetta, "Simulated Annealing for Supervised Gene Selection", Technical Report DISI-TR-06-10, Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova, ITALY, 2006.
- M. Filippone, F. Camastra, F. Masulli, S. Rovetta, "A survey of kernel and spectral methods for clustering", Technical Report DISI-TR-06-19, Dipartimento di Informatica e Scienze dell'Informazione, Università di Genova, ITALY, 2006.

Editing of Special Issues of International Journals

- A. M. Colla, F. Masulli, and R. Plamondon (Guest Editors), "Special issue on Advances in Handwriting and Drawing Analysis", Intelligent Automation and Soft Computing, vol. 7, n. 3, 2000.
- F. Masulli and R. Parenti (Guest Editors), "Special Paper Selection on Soft Computing and Industrial Applications", KES - International Journal of Knowledge-Based Intelligent Engineering Systems, vol. 5, n. 3, 2001.
- F. Masulli, A. Petrosino (Guest Editors), "Special issue on Advances in Fuzzy sets and Rough sets", International Journal of Approximate Reasoning, vol. 41, n.2, 2006.
- F. Masulli, S. Mitra (Guest Editors), "Special issue on Natural Computing in Bioinformatics", International Journal of Information Fusion, 10/3, 2009.
- F. Masulli, R. Tagliaferri, G. Valentini (Guest Editors), "Special issue on Computational Intelligence and Machine Learning Methods in Bioinformatics", International Journal of Artificial Intelligence in Medicine, 45/2-3, 2009.
- F. Masulli, R. Tagliaferri, (Guest Editors), Advances in Computational Intelligence

and Bioinformatics", International Journal of Soft Computing, A Fusion of Foundations, Methodologies and Applications 15/8, 2011.

Editing of Books and Conference Proceedings

- F. Masulli, P. G. Morasso, and A. Schenone (Editors), Neural Networks in Biomedicine - Proceedings of the Advanced School of the Italian Biomedical Physics Association - Como (Italy) 1993, World Scientific, Singapore, 1994.
- A. Bonarini, D. Mancini, F. Masulli, and A. Petrosino (Editors), New Trends in Fuzzy Logic - Proceedings of the WILF'95 - 1995 Italian Workshop on Fuzzy Logic (21-22 Sept 1995, Napoli-Italy), World Scientific, Singapore, 1996.
- A. M. Colla, F. Masulli, and P. Morasso (Editors), Proceedings of the 8th Biennial Conference of the International Graphonomics Society IGS'97, International Graphonomics Society, Nijmegen (Holland), Genova, 1997.
- R. Parenti and F. Masulli (Editors), Proceedings of the third ICSC Symposia on Intelligent Industrial Automation (IIA'99) and Soft Computing (SOCO'99), Genova, ICSC, Millet, Canada, 1999.
- F. Masulli, R. Parenti, and G. Pasi (Editors), Workshop Italiano sulla Logica Fuzzy, WILF'99-Genova, Abstract Collection, Genova, 1999.
- F. Masulli, R. Parenti, and G. Pasi (Editors), Advances in Fuzzy Systems and Intelligent Technologies, Shaker, Maastricht (NL), 2000.
- A. Bonarini, F. Masulli, and G. Pasi (Editors), Soft Computing Applications - Proceedings of the WILF'01 - 2001 Italian Workshop on Fuzzy Logic (Milan-Italy), Series Advances in Soft Computing (Kacprzyk, J. ed.), Springer-Verlag, 2003.
- V. Di Gesu', F. Masulli, and A. Petrosino (Editors), Pre-proceedings of WILF'03 - International Workshop on Fuzzy Logic and Applications, Naples, Italy, 2003.
- M. Aleksy, T. Coffey, A. Fong, R. Gitzel, D. Lewis, F. Masulli, L. Moreno, T.J. Naughton, D. O'Sullivan, C. Roda, P. Rosso, S. Rovetta, J. Thomas, and J. Waldron (Editors) Proceedings of ISICT 2003 - International Symposium on Information and Communication Technologies, Computer Science Press, Trinity College Dublin, Ireland, ACM International Conference Proceeding Series, vol. 49, 2003.
- F. Masulli, and R. Tagliaferri (Editors), Notes of the CI-BIO, Workshop on Computational Intelligence Approaches for the Analysis of Bioinformatics Data, Montreal, Quebec, Canada, August 5, 2005, IEEE Computational Intelligence Society, Piscataway, NJ, USA, 2005.
- V. Di Gesu, V., F. Masulli, and A. Petrosino (Editors), Fuzzy Logic and Applications, Series Lecture Notes in Artificial Intelligence, LNCS/LNAI 2955, Springer-Verlag, Heidelberg (Germany), 2006.
- F. Masulli, S. Mitra, and G. Pasi (Editors), Applications of Fuzzy Sets Theory, Series Lecture Notes in Artificial Intelligence, LNCS/LNAI 4578, Springer-Verlag, Heidelberg (Germany), 2007.
- F. Masulli, and R. Tagliaferri (Editors), Notes of the CI-BIO 2007, Workshop on Computational Intelligence Approaches for the Analysis of Bioinformatics Data, Orlando, FL, USA, Aug 17th, 2007, IEEE Computational Intelligence Society, Piscataway, NJ, USA, 2007.
- F. Masulli, R. Tagliaferri, and G.M. Verkhivker (Editors), Proceedings of the CIBB 2008: Computational Intelligence Methods for Bioinformatics and Biostatistics (Vietri-Italy), Proceedings of DMI, v. 2, 2008 (memory drive). ISBN: 978-88-903537-1-0, DMI Univ. Salerno, Italy, 2008.
- F. Masulli, R. Tagliaferri, and G.M. Verkhivker (Editors), Computational Intelligence

- Methods for Bioinformatics and Biostatistics - Selected revised papers of CIBB 2008, Series Lecture Notes in Bioinformatics, LNCS/LNBI 5488, Springer-Verlag, Heidelberg (Germany), 2009.
- F. Masulli, A. Micheli, A. Sperduti (Editors), Computational Intelligence and Bioengineering - Essays in Memory of Antonina Starita, Series Frontiers in Artificial Intelligence and Applications, 196, IOS Press, 2009.
 - D. Bordo, F. Masulli, M. Muselli, P. Romano (Editors), Proceedings Sixth Annual Meeting of the Bioinformatics Italian Society BITS 2009, Genova, 10-13 March 2009, vol. 1, Libero di Scrivere, Genova (Italy), ISBN 978-88-7388-255-1, 2009
 - F. Masulli, L. Peterson, R. Tagliaferri (Editors), Proceedings of the CIBB 2009: Computational Intelligence Methods for Bioinformatics and Biostatistics (Oratorio San Filippo Neri, Genova -Italy), Proceedings of DMI, v. 3, DMI Univ. Salerno, Italy, ISBN 978-88-903537-2-7 (memory drive), 2009.
 - F. Masulli, L. Peterson, R. Tagliaferri, (Editors), Computational Intelligence Methods for Bioinformatics and Biostatistics - Selected revised papers of CIBB 2009, Series Lecture Notes in Bioinformatics, LNCS/LNBI 6160, Springer-Verlag, Heidelberg (Germany), 2010.
 - L. Peterson, F. Masulli, G. Russo, (Editors), Proceedings of the CIBB 2012: Computational Intelligence Methods for Bioinformatics and Biostatistics (The Methodist Hospital Research Institute, Houston, Tx, USA), ISBN 978-88-906437-1-2 (memory drive) CIBB Proceedings Series, DI University of Salerno, Italy, 2012.
 - A.E.P. Villa, W. Duch, P. Erdi, F. Masulli, F., G. Palm, (Editors), 22nd International Conference on Artificial Neural Networks, Lausanne, Switzerland, September 11-14, 2012, Proceedings, Part I, Subseries Theoretical Computer Science and General Issues, LNCS 7552, Springer-Verlag, Heidelberg (Germany), 2012.
 - A.E.P. Villa, W. Duch, P. Erdi, F. Masulli, F., G. Palm, (Editors), 22nd International Conference on Artificial Neural Networks, Lausanne, Switzerland, September 11-14, 2012, Proceedings, Part II, Subseries Theoretical Computer Science and General Issues, LNCS 7553, Springer-Verlag, Heidelberg (Germany), 2012.
 - L. Peterson, F. Masulli, G. Russo (Editors), Computational Intelligence Methods for Bioinformatics and Biostatistics - Selected revised papers of CIBB 2012, Series Lecture Notes in Bioinformatics, LNCS/LNBI 7845, Springer-Verlag, Heidelberg (Germany), isbn 978-3-642-38341-0, 2013.
 - F. Masulli, G. Pasi, R. Yager (editors), in Fuzzy Logic and Applications 10th International Workshop, WILF 2013, Genoa, Italy, November 19-22, 2013, LNCS/LNAI 8256, Springer-Verlag, Heidelberg (Germany), 2013.
 - F. Masulli (Part-editor), Springer Handbook of Bio- and Neuroinformatics - Parts: D (III) Modeling Regulatory Networks, E (IV) Bioinformatics Databases and Ontologies, F (V) Bioinformatics in Medicine, Health and Ecology, K (X) Information Modeling Brain Diseases, Principal Editor N. Kasabov (2014).
 - F. Masulli, A. Petrosino, S. Rovetta, (Editors), International Workshop on Clustering High-Dimensional Data - Selected revised papers of CHDD 2012, LNCS, Springer-Verlag, Heidelberg (Germany), (2015).

Editing of Sections of Conference Proceedings

- F. Masulli and Alpaydin E. (Workshop Chairs), "Workshop on: Soft computing and pattern recognition, with contributions by: D. Alfonso, F. Masulli and A. Sperduti, J. Linag, F. V. Jensen and H. I. Christens, H. H. Bothe and E. A. Wieden, E. Alpaydin", in P. G. Anderson and K. Warwick, editors, Proceedings of the International ICSC Symposium on Industrial Intelligent Automation (IIA'96) and Soft Computing

- (SOCO'96), Reading, England, pp. C1–C29, Millet Alberta, Canada, 1996. ICSC.
- F. Masulli and L. Studer (Session's Chairs), "Session 6 (invited): Forecasting Chaotic Time Series, with contributions by: F. Masulli and L. Studer, M. Ghil, F. C. Morabito, and R. Ghilmore", in B. Bosacchi, J. C. Bezdek, and D. B. Fogel, editors, Applications of Soft Computing - SPIE Proceedings Series, vol. 3165, pp. 203–259, San Diego, CA, 1997. SPIE - Bellingam, WA, USA, (invited session).

Preface to Books and Conference Proceedings

- F. Masulli, P. G. Morasso, and A. Schenone (Editors), "Introduction" Neural Networks in Biomedicine - Proceedings of the Advanced School of the Italian Biomedical Physics Association - Como (Italy) 1993, p. ix, World Scientific, Singapore, 1994.
- A. Bonarini, D. Mancini, F. Masulli, and A. Petrosino (Editors), "Introduction", New Trends in Fuzzy Logic - Proceedings of the WILF'95 - 1995 Italian Workshop on Fuzzy Logic (21-22 Sept 1995, Napoli-Italy), p. xi, World Scientific, Singapore, 1996.
- F. Masulli and L. Studer (Session's Chairs), "Introduction - Forecasting Chaotic Time Series" in B. Bosacchi, J. C. Bezdek, and D. B. Fogel, editors, Applications of Soft Computing - SPIE Proceedings Series, vol. 3165, p. 203, San Diego, CA, 1997. SPIE - Bellingam, WA, USA.
- F. Masulli, R. Parenti and G. Pasi (Guest Editors), "Preface", Advances in Fuzzy Systems and Intelligent Technologies, Shaker, Maastricht (NL), 2000.
- A. M. Colla, F. Masulli, and R. Plamondon (Guest Editors), "Guest Editorial of the Special issue on Advances in Handwriting and Drawing Analysis", Intelligent Automation and Soft Computing, Vol 7, n. 3, pp. 161–162, 2001.
- A. Bonarini, F. Masulli, and G. Pasi (Guest Editors), "Preface", Soft Computing Applications - Proceedings of the WILF'01 - 2001 Italian Workshop on Fuzzy Logic (Milan-Italy), Advances in Soft Computing Series, Springer-Verlag, Heidelberg, Germany, p. 3, 2003.
- V. Di Gesu', F. Masulli, and A. Petrosino (Editors), "Preface", Fuzzy Logic and Applications - Proceedings of the WILF'03 - 2003 International Workshop on Fuzzy Logic and Applications (Naples-Italy), Series Lecture Notes in Artificial Intelligence, LNCS/LNAI 2955, Springer-Verlag, Heidelberg (Germany), 2006.
- F. Masulli, S. Mitra, and G. Pasi (Editors), "Preface", Applications of Fuzzy Set Theory - Proceedings of the WILF'07 - 2007 International Workshop Fuzzy Logic and Applications (Camogli-Italy), Series Lecture Notes in Artificial Intelligence, LNCS/LNAI 4578, Springer-Verlag, Heidelberg (Germany), 2007.
- F. Masulli, R. Tagliaferri, G.M. Verkhivker (Editors), "Preface", Proceedings of the CIBB 2008: Computational Intelligence Methods for Bioinformatics and Biostatistics (Vietri- Italy), Series Lecture Notes in Bioinformatics, LNCS/LNBI, Springer-Verlag, Heidelberg (Germany), 2008 (in press).
- F. Masulli, R. Tagliaferri, G.M. Verkhivker (Editors), "Preface", CIBB 2008: Computational Intelligence Methods for Bioinformatics and Biostatistics (Vietri-Italy)}, Proceedings of DMI, v. 2, 2008 (memory drive). ISBN: 978-88-903537-1-0, DMI Univ. Salerno, Italy, 2008.
- F. Masulli, R. Tagliaferri, and G.M. Verkhivker (Editors), "Preface", Computational Intelligence Methods for Bioinformatics and Biostatistics - Selected revised papers of CIBB 2008, Series Lecture Notes in Bioinformatics, LNCS/LNBI 5488, Springer-Verlag, Heidelberg (Germany), 2009.
- F. Masulli, A. Micheli, A. Sperduti (Editors), "Preface", Computational Intelligence

- and Bioengineering - Essays in Memory of Antonina Starita, Series Frontiers in Artificial Intelligence and Applications, 196, Springer-Verlag, IOS Press, 2009.
- D. Bordo, F. Masulli, M. Muselli, P. Romano (Editors), ``Preface'', Proceedings Sixth Annual Meeting of the Bioinformatics Italian Society BITS 2009, Genova, 10-13 March 2009, vol. 1, Libero di Scrivere, Genova (Italy), ISBN 978-88-7388-255-1, 2009.
 - F. Masulli, L. Peterson, R. Tagliaferri, (Editors), ``Preface'', CIBB 2009: Computational Intelligence Methods for Bioinformatics and Biostatistics (Oratorio San Filippo Neri, Genova -Italy), Proceedings of DMI, v. 3, DMI Univ. Salerno, Italy, ISBN 978-88-903537-2-7 (memory drive), 2009.
 - F. Masulli, L. Peterson, R. Tagliaferri, (Editors), ``Preface'', Computational Intelligence Methods for Bioinformatics and Biostatistics - Selected revised papers of CIBB 2009, Series Lecture Notes in Bioinformatics, LNCS/LNBI, Springer-Verlag, Heidelberg (Germany), 2010.
 - L. Peterson, F. Masulli, G. Russo, (Editors), ``Preface'', Computational Intelligence Methods for Bioinformatics and Biostatistics - Selected revised papers of CIBB 2012, Series Lecture Notes in Bioinformatics, LNCS/LNBI 7845, Springer-Verlag, Heidelberg (Germany), 2013.
 - Masulli, F., Petrosino, A., Rovetta, S. (Editors), ``Preface'', 1st International Workshop on Clustering High-Dimensional Data, CHDD 2012; Naples; Italy; 15 May 2012, Lecture Notes in Computer Science Pages V-VI, Volume 7627, 2015.