

## Academic Curriculum

Ester Zumpano

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### Personal Information

Ester Zumpano

Ph.D., Associate Professor of Computer Engineering - ING-INF/05

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## Career

- January 02, 2006: Associate Professor of Computer Engineering, SSD ING-INF/05, University of Calabria, Italy.
- December 16, 2002- January 01, 2006: Assistant Professor of Computer Engineering (SSD INGINF/05), University of Calabria.
- February , 21, 2003: Ph.D. degree in Systems Engineering and Computer Science, University of Calabria.
- October 1998: Master degree in Computer Engineering, University of Calabria.

## Scientific Activities

Her main research activities are in the following fields:

- **Inconsistent Databases**: This research work is about the problem of inconsistencies in databases, which is particularly relevant in the integration of data originating from separate data sources.
- **View Updating**: This research work introduces and studies a declarative framework for updating views over indefinite databases
- **Integration Techniques**: This research work is about the problem of databases integration. In the range of this research line some integration operators, which allow to combine data considering preference criteria on the sources, have been studied.
- **Logical Frameworks for Integrating and Querying P2P Systems**: This research line is about the integration and querying of database in peer to peer (P2P) systems.
- **Logical Programs with Preferences**: In this research activity logic programs with preferences among atoms have been studied.
- **Abduction**: In this research activity a framework of abductive logic programming extended with integrity constraints have been studied. For this framework, a new measure of the simplicity of an explanation based on its degree of arbitrariness has been introduced.
- **Health Information System**: In this research activity, a system suited for medical and technical specialists of the Complex Operative Unit of Medical Oncology, which ensures scalability and modularity, has been proposed and developed.

## Reviewer of Scientific Journals

She has participated and presented works in several national and international conferences. She is founding member of a spin off. She is involved in the scientific organization of international conferences, workshops and special sessions. She participates in the review activities of articles proposed for publication to several national and international conferences and journals. Among these last: TKDE, DKE, JAL, WWW, IS, TPLP, JSSSE.

### **Program Committee Member of International Conferences (last 2 years)**

Int. Joint Conference on Artificial Intelligence (IJCAI 2020), European Conference on Artificial Intelligence (ECAI2020), Int. Conference on Database and Expert Systems Applications (DEXA2020), Int. Database Engineering & Applications Symposium (IDEAS2020), Databases and Big Data Management ACM Symposium on Applied Computing (DBDM@ACM SAC2020), Int. Conference on Information Integration and Web-based Applications and Services (IIWAS2020), Pattern Extraction and Recognition for Cultural Heritage Understanding (VIPERC@IRCDL 2020), Workshop Artificial Intelligence Techniques for BioMedicine and HealthCare (AIBH@ IEEE BIBM 2020), Social Media Analytics for Health intelligence (SMA4H@WI2020), Workshop Computer based processes and algorithms for biomedicine and life quality improvement (CBPBL@ IEEE BIBM 2020), Workshop Artificial Intelligence Techniques for BioMedicine and HealthCare (AIBH@ IEEE BIBM 2020), Int. Joint Conference on Artificial Intelligence (IJCAI 2019), Databases and Big Data Management ACM Symposium on Applied Computing (DBDM@ACM SAC2019), Int. Conference on Database and Expert Systems Applications (DEXA2019), Pattern Extraction and Recognition for Cultural Heritage Understanding (VIPERC@IRCDL 2019), Int. Database Engineering & Applications Symposium (IDEAS2019), Int. Conference on Information Integration and Web-based Applications and Services (IIWAS 2019), Workshop Computer based processes and algorithms for biomedicine and life quality improvement (CBPBL@ IEEE BIBM 2019), Workshop Artificial Intelligence Techniques for BioMedicine and HealthCare (AIBH@ IEEE BIBM 2019).

### **Scientific Organization Activity (last 2 years)**

2007- on-going. **Member of steering committee** of the East European Conference on Advances in Databases and Information Systems (ADBIS); **Editor** of the Information Systems Special issue - Managing, Mining and Learning in the Legal Data Domain for the Information Science Journal, 2020; **Lead Guest Editor** of the Special Issue Mathematical Theories in the Era of Big Data for the Mathematical Problems in Engineering journal Hindawi; **Co-guest Editor** of the special issue 'Hybrid machine learning techniques in bioinformatics' Encyclopedia of Bioscience; **Guest Editor** of the Special Issue 'Application of Machine Learning Methods in Bio-medical Informatics' for the Mathematical Biosciences and Engineering journal; **Program Chair** of the IDEAS Conf. 2018 - June 18 – 20, 2018; **Program Chair** of the CILC Conference 2020, September 2020; **Program Chair** of the Special Session Machine Learning in Health@ICMLA 2019 - Boca Raton, Florida, USA, December 16-19, 2019; **Program Chair** of the workshop COURT@CAISE 2020 - Grenoble, France, June 8-12, 2020; **Program Chair** of the workshop HELPLINE@ECAI 2020 - Santiago de Compostela, Spain, June 8-12, 2020; **Publicity Chair** of the Int. Workshop on Visual Pattern Extraction and Recognition for Cultural Heritage Understanding VIPERC@IRCDL2020, January 30-31, 2020, Bari, Italy; **Program Chair** of the workshop AIBH@BIBM2018 (Artificial Intelligence Techniques for BioMedicine and HealthCare) at the IEEE BIBM, December 3-6, 2018; **Program Chair** of the workshop AIBH@BIBM 2019 (Artificial Intelligence Techniques for BioMedicine and HealthCare) at the IEEE BIBM, November 18-21, 2019, San Diego, CA, USA. **Program Chair** of the workshop AIBH@BIBM (Artificial Intelligence Techniques for BioMedicine and HealthCare) at the IEEE BIBM, December 16-19, 2020, Seoul, Korea.

## Spin Off

She is founding member of the ITACA S.r.l. ([www.itacatech.it](http://www.itacatech.it)). Itaca srl is a spin off from both the University of Calabria (UNICAL) and the University of Salento (UNISALENTO). It has been founded in 2006 by IT professionals and professors whose main fields of interest are logistics and optimization and Information and Communication Technology.

## Research/Technical Projects

She participated to many international, national and local research/technical projects. In some of these she has been involved as project member and in some other as project leader.

In the bottom are reported the research/technical projects in which she has been involved as Unical Responsible.

- June 5, 2017 - May 31, 2019. **Unical Responsible** of the project **SIMPATICO** (Sistema Informativo Medico PATologie COmplesse) 3D funded within the FESR 2014/2020 for a total of 675.000,00 Euros;
- February 4, 2010 - November 30, 2011. **Unical Responsible** of the project **PIA - Nuove Tecniche e strumenti per la gestione di basi di dati distribuite**. The project has been proposed by the DEIS Department and the software house e way Enterprise Business Solutions S.r.l. The project, funded by Regione Calabria, is related to the integration and querying of databases in a P2P environment (p2p data management system, P2PDBMS)

## Teaching activities (last 2 years)

- ACADEMIC COURSES 2019/20
  - Fundamentals of Computer Science, for B.Sc. degree students in Mechanical Engineering (DIMEG) Database Systems, for M.Sc. degree students in Management Engineering (DIMEG)
  - Information Systems for Tourism, for M.Sc. students in enhancement of cultural tourism services (DISCAG)
- ACADEMIC COURSES 2018/19
  - Fundamentals of Computer Science, for B.Sc. degree students in Mechanical Engineering (DIMEG) Database Systems, for M.Sc. degree students in Management Engineering (DIMEG)
  - Information Systems for Tourism, for M.Sc. students in enhancement of cultural tourism services (DISCAG)

## Publications

1. G. Greco, S. Greco, E. Zumpano, "A Probabilistic Approach for Distillation and Ranking of Web Pages" - World Wide Web Journal (WWW), 4(3): 189-207, 2001, - Kluwer Academic Publishers Jennifer Evans, Publishing Editor
2. G. Greco, S. Greco, E. Zumpano, "A Logical Framework for Querying and Repairing Inconsistent Databases" - IEEE Transactions on Knowledge and Data Engineering (TKDE) - 15(6): 1389-1408 (2003) IEEE Computer Society USA - Philip S. Yu, Editor-in-Chief.
3. G. Greco, S. Greco, E. Zumpano, "Collaborative Filtering Supporting Web Site Navigation" - AI Communications 17(3): 155-166, 2004.
4. L. Pontieri, D. Ursino, E. Zumpano, "An approach for the extensional integration of data sources with heterogeneous representation formats" - Data and Knowledge Engineering (DKE), 45(3): 291-331, 2003.
5. G. Greco, S. Greco, E. Zumpano, "Web Communities: Models and Algorithms" - World Wide Web 7(1): 58-82, 2004. Kluwer Academic Publishers. La versione elettronica dell'articolo è visibile all'indirizzo: <http://journals.kluweronline.com/article.asp?PIPS=5264432>
6. G. Greco, S. Greco, I. Trubitsyna, E. Zumpano, "Optimization of Bound Disjunctive Queries with Constraints" - Theory and Practice of Logic Programming - TPLP 5(6): 713-745 (2005)
7. S. Flesca, S. Greco, A. Tagarelli and E. Zumpano, "Mining User Preferences, Page Content and Usage to Personalize Website Navigation" - World Wide Web Journal, 8(3): 317-345, 2005.
8. S. Greco, I. Trubitsyna and E. Zumpano (2007) "On the Semantics of Logic Programs with Preferences", JAIR - Journal of Artificial Intelligence Research, Vol. 30, pages 501-523.
9. L. Caroprese, S. Greco and E. Zumpano "Active Integrity Constraints for Database Maintenance", IEEE Transactions on Knowledge and Data Engineering (TKDE), 21(7): 1042-1058 (2009)
10. S. Greco, C. Molinaro, I. Trubitsyna, E. Zumpano - NP Datalog: A logic language for expressing search and optimization problems. TPLP 10(2): 125-166 (2010).
11. L. Caroprese, I. Trubitsyna, M. Truszczynski, E. Zumpano, A Measure of Arbitrariness in Abductive Explanations. TPLP 2014, pp. 665-679.
12. L. Caroprese, E. Zumpano, Indefinite abductive explanations. Journal of Applied Non-Classical Logics, 2019, <https://doi.org/10.1080/11663081.2019.1624349>
13. L. Caroprese, I. Trubitsyna, M. Truszczynski, E. Zumpano, A logical framework for view updating in indefinite databases. Logic Journal of the IGPL 2019, <https://doi.org/10.1093/jigpal/jzz003>
14. L. Caroprese, E. Zumpano, A Logic Framework for P2P Deductive Databases. Luciano Caroprese, Ester Zumpano: A Logic Framework for P2P Deductive Databases. Theory Pract. Log. Program. 20(1): 1-43 (2020) DOI:10.1017/S1471068419000073
15. A. Fuduli, P. Veltri, E. Vocaturo, E. Zumpano, "Melanoma detection using color and texture features in computer vision systems", Advances in Science,



- Technology and Engineering Systems Journal, vol. 4, no. 5, pp. 16-22 (2019).  
DOI: 10.25046/aj040502
16. S. Greco, E. Zumpano, "Querying Inconsistent Databases" - Logic Programming and Automated Reasoning (LPAR), pp. 308-325, Reunion Island, Novembre 6-10, 2000.
  17. S. Greco, E. Zumpano, "Computing Repairs for Inconsistent Databases" - Cooperative Database System for Advanced Applications (CODAS), pp. 33-40, Beijing, China April 23-24, 2001.
  18. S. Greco, L. Pontieri, E. Zumpano, "A Technique for Information System Integration" - International Conference on Information Systems Technology and its Applications (ISTA) - National Technical University Kharkiv, Ukraine, June 13 - 16, 2001.
  19. S. Greco, L. Pontieri, E. Zumpano, "Integrating and Managing Conflicting Data" - Perspectives of System Informatics (PSI), pp. 349-362, Novosibirsk, Akademgorodok, Russia, 3 - 6 July, 2001.
  20. G. Greco, S. Greco, E. Zumpano, "A logic Programming approach to the Integration, Repairing and Querying of Inconsistent Databases" - International Conference on Logic Programming (ICLP), pp. 348-394, Paphos, Cypress, Nov 26 - Dec 1, 2001.
  21. G. Greco, S. Greco, E. Zumpano, "Deterministic Semantics for Disjunctive Logic Programs" Joint Conference on Declarative Programming (APPIA-GULP-PRODE), pp. 17-30, Evora, Portugal, September 26-28, 2001.
  22. G. Greco, S. Greco, E. Zumpano, "A probabilistic approach for discovering Authoritative Web pages" - Web Information Systems Engineering (WISE), pp.137-146, Kyoto, Japan, 3 - 6 Dec., 2001.
  23. G. Greco, S. Greco, E. Zumpano, "STED: A System for Topic Enumeration and Distillation" - IEEE Int. Conf. on Information Technology: Coding and Computing (ITCC), pp. 294- 299, The Orleans, Las Vegas, Nevada, April 1-3, 2002.
  24. G. Greco, S. Greco, E. Zumpano, "A logic framework for the integration of databases" - Int. Symposium on Methodologies for Intelligent Systems (ISMIS), pp. 274-284, Lyon, France, June 27-29, 2002.
  25. L. Pontieri, D. Ursino, E. Zumpano, "An approach for synergically carrying out intensional and extensional integration" - International Conference on Advanced Information Systems Engineering (CAISE), pp. 752-756, Toronto, Canada, 2002.
  26. G. Greco, S. Greco, E. Zumpano, "Recommendation Techniques for the Efficient Navigation of Web sites" - Workshop on Document Compression and Synthesis in Adaptive Hypermedia Systems (DoCS), Malaga (Spain), 28 Maggio, 2002.
  27. G. Greco, E. Zumpano, "Complexity and Algorithms for the Matching of Bag and Set Terms" Logics in Artificial Intelligence (JELIA), pp. 216-230, Cosenza, Italy, September 23-26, 2002.
  28. G. Greco, S. Greco, I. Trubtsyna, E. Zumpano, "Translating Datalog-like Optimization Queries into ILOG Programs" - Logic Program Synthesis and Transformation (LOPSTR), pp. 48-49, Madrid, Spain, 18 - 20 September, 2002.

29. G. Greco, S. Greco, I. Trubitsyna, E. Zumpano, "Query Optimization of Disjunctive Databases with Constraints through Binding Propagation" - Logic Programming and Automated Reasoning (LPAR), pp. 216-230, Tbilisi, Georgia, October 14-18th, 2002.
30. G. Greco, S. Greco, E. Zumpano, "A Logic Language for Database Integration" - Joint Conference on Declarative Programming (APPIA-GULP-PRODE), Madrid, Spain, 16 - 18 September, 2002.
31. G. Greco, S. Greco, E. Zumpano, "A Stochastic Approach for Modeling and Computing Web Communities" - Web Information Systems Engineering (WISE), pp. 43-52, Singapore, 12-14th Dec, 2002.
32. S. Greco, C. Sirangelo, I. Trubitsyna and E. Zumpano, "Preferred Repairs for Inconsistent Databases" - International Database Engineering and Applications Symposium (IDEAS), pp. 202-211, July 16-18, 2003, Hong Kong.
33. S. Flesca, F. Furfaro, S. Greco, E. Zumpano, "Repairs and Consistent Answers for XML Data with Functional Dependencies" International XML Database Symposium (XSym), pp. 238-253, Berlin, Germany, 2003.
34. G. Greco, S. Greco, E. Zumpano, "A lightweight tool for easy web sites navigation" - Web Information Systems Engineering (WISE), pp. 134-146, Rome, Italy, 10-12 December, 2003.
35. S. Greco, E. Zumpano, "On the Rewriting and Efficient Computation of Bound Disjunctive" Principles and Practice of Declarative Programming (PPDP), pp. 136-147, Uppsala, Sweden, 27-29 August, 2003.
36. E. Zumpano, S. Greco, I. Trubitsyna, P. Veltri, "On the Semantics and Expressive Power of Datalog-like Languages for NP Search and Optimization Problems" - ACM Symposium On Applied Computing (SAC), pp. 692-697, Nicosia, Cyprus, March 14-17, 2004.
37. S. Flesca, S. Greco, A. Tagarelli, E. Zumpano, "Non-Invasive Support for Personalized Navigation of Websites" - In Proc. of Int. Database Engineering and Applications Symposium (IDEAS), pp. 183-192, Coimbra, Portugal, 7-9 July, 2004.
38. S. Flesca, S. Greco, E. Zumpano, "Active Integrity Constraints" - Principles and Practice of Declarative Programming (PPDP), pp. 238-253, Verona, Italy, August 24 - 26, 2004 .
39. S. Greco, C. Sirangelo, I. Trubitsyna, E. Zumpano, "Feasibility Conditions and Preference Criteria in Querying and Repairing Inconsistent Databases" - Database and Expert Systems Applications (DEXA), pp. 44-55, Zaragoza, Spain, 30 August - 3 September, 2004.
40. S. Flesca, F. Furfaro, S. Greco, E. Zumpano, Querying and Repairing Inconsistent XML Data. WISE, pp. 175-188, 2005.
41. S. Greco, A. Scicchitano, A. Tagarelli, E. Zumpano: A Mobile-Aware System for Website Personalization. WAIM, pp. 810-815, 2005.
42. S. Greco, I. Trubitsyna, E. Zumpano: Aggregates and Preferences in Logic Programming. pp. 413-424, ISMIS 2005.

43. S. Greco, I. Trubitsyna, E. Zumpano: NP Datalog: A Logic Language for NP Search and Optimization Queries, pp. 344–353, IDEAS 2005.
44. S. Greco, I. Trubitsyna, E. Zumpano: On the Semantics of Logic Programs with Preferences. pp. 203-215, Logics in Artificial Intelligence - JELIA 2006.
45. L. Caroprese, S. Greco, I. Trubitsyna, E. Zumpano: Preferred Generalized Answers for Inconsistent Databases, pp. 344-349, Int. Symposium on Methodologies for Intelligent Systems (ISMIS) Bari, September 27-29, 2006.
46. L. Caroprese, S. Greco, C. Sirangelo, E. Zumpano: Declarative Semantics of Production Rules for Integrity Maintenance, pp. 26-40, Int. Conf. on Logic Programming (ICLP) - Seattle, Washington, USA, 17-20 August, 2006.
47. L. Caroprese, S. Greco, E. Zumpano: Merging, Repairing and Querying Inconsistent Databases with Functional and Inclusion Dependencies. International Conference on Enterprise Information Systems, ICEIS (1) 2006: 38-45, Paphos, Cyprus 23-27 May 2006.
48. L. Caroprese, E. Zumpano: A Framework for Merging, Repairing and Querying Inconsistent Databases, Advances in Databases and Information Systems (ADBIS) - pp. 383-398, September 3-7, 2006.
49. L. Caroprese, C. Molinaro, E. Zumpano: Integrating and Querying P2P Deductive Databases, International Database Engineering & Applications Symposium (IDEAS), Delhi, INDIA Dec. 11-14, 2006.
50. L. Caroprese, E. Zumpano: On the Integration, Repairing and Querying of Conflicting Data, Information Integration and Web-based Application & Services (IIWAS) 2006, 4 - 6 December 2006, Yogyakarta Indonesia.
51. L. Caroprese, S. Greco, E. Zumpano, A Logic Programming Approach to Querying and Integrating P2P Deductive Databases - FLAIRS 2006, pp. 31-36.
52. L. Caroprese, I. Trubitsyna, E. Zumpano: A framework for prioritized reasoning based on the choice evaluation, ACM Symposium on Applied Computing (SAC) Seoul, Korea, March 11 - 15, 2007.
53. L. Caroprese, I. Trubitsyna, E. Zumpano, Prioritized Reasoning in Logic Programming - FLAIRS 2007, pp. 178-179.
54. L. Caroprese, I. Trubitsyna, E. Zumpano, Implementing prioritized reasoning in logic programming, In Proc. of the 9th International Conference on Enterprise Information Systems (ICEIS 2007), pp. 94-100, Funchal, Madeira - Portugal, June 12-16, 2007.
55. L. Caroprese, I. Trubitsyna, E. Zumpano, View Updating Through Active Integrity Constraints. ICLP 2007, pp. 430-431.
56. L. Caroprese, E. Zumpano, Consistent Data Integration in P2P Deductive Databases. SUM 2007, pp. 230-243.
57. L. Caroprese, E. Zumpano, Modeling Cooperation in P2P Data Management Systems, ISMIS 2008, Toronto, Canada.
58. L. Caroprese, P. M. A. Slood, B. Nuallin, E. Zumpano: A logical framework for detecting anomalies in drug resistance algorithms. IDEAS 2009: 23-30



59. L. Caroprese, C. Molinaro, I. Trubitsyna, E. Zumpano: Consistent Queries over Databases with Integrity Constraints. Database Technologies: Concepts, Methodologies, Tools, and Applications 2009: 2051-2058
60. L. Caroprese, C. Comito, D. Talia, E. Zumpano: A logic approach to virtual sensor networks. IDEAS 2010: 149-156
61. Luciano Caroprese, Ester Zumpano: Aggregates and priorities in P2P data management systems. IDEAS 2011: 1-7
62. Luciano Caroprese, Ester Zumpano: Handling Preferences in P2P Systems. Accepted at FOIKS 2012.
63. L. Caroprese, E. Zumpano, Restoring Consistency in P2P Deductive Databases. SUM 2012, pp. 168-179, ISBN 978-3-642-33361-3
64. L. Caroprese, I. Trubitsyna, M. Truszczynski, E. Zumpano, The View-Update Problem for Indefinite Databases. Jelia 2012, pp. 134-146, ISBN 978-3-642-33352-1.
65. L. Caroprese, I. Trubitsyna, M. Truszczynski, E. Zumpano, A Measure of Arbitrariness in Abductive Explanations. ICLP 2014 (pubblicato su TPLP).
66. L. Caroprese, E. Zumpano, Dealing with Incompleteness and Inconsistency in P2P Deductive Databases. IDEAS 2014, pp. 124-131, ISBN 978-1-4503-2627-8.
67. L. Caroprese, E. Zumpano, A Logic Based Approach for Managing Incompleteness and Inconsistencies in P2P Deductive Databases. IDEAS 2015, pp. 168-173, ISBN 978-1-4503-3414-3.
68. L. Caroprese, E. Zumpano, A Logic Based Approach for Restoring Consistency in P2P Deductive Databases. DEXA 2015, pp. 3-12, ISBN 978-3-319-22851-8.
69. L. Caroprese, E. Zumpano, A Deterministic Model for P2P Deductive Databases. IDEAS 2016, pp. 193-198, ISBN 978-1-4503-4118-9.
70. L. Caroprese, E. Zumpano, Generalized Maximal Consistent Answers in P2P Deductive Databases. DEXA 2016, pp. 368-376, ISBN 978-3-319-44405-5.
71. L. Caroprese, E. Zumpano, Computing a Deterministic Semantics for P2P Deductive Databases. IDEAS 2017.
72. L. Caroprese, E. Zumpano, P2P Deductive Databases: Well Founded Semantics and Distributed Computation. ADBIS 2017.
73. L. Caroprese, E. Zumpano, A Declarative Semantics for P2P Systems. CD-MAKE 2017.
74. P. Iaquinta, M. Iusi, L. Caroprese, S. Turano, S. Palazzo, F. Dattola, I. Pellegrino, P. Veltri, E. Zumpano, eIMES 3D: An innovative medical images analysis tool to support diagnostic and surgical intervention. BioNet 2017.
75. L. Caroprese, E. Zumpano, P2P Deductive Databases: A System Prototype. IIWAS 2017.
76. P. Iaquinta, M. Iusi, L. Caroprese, S. Turano, S. Palazzo, F. Dattola, I. Pellegrino, G. Tradigo, G. Cascini, P. Veltri, E. Zumpano, eIMES 3D Mobile: A Mobile Application for Diagnostic Procedures. CBPBL 2017.
77. L. Caroprese, E. Zumpano, Integration of Unsound Data in P2P Systems. ADBIS 2018.

78. L. Caroprese and P. L. Cascini, P. Cinaglia, F. Dattola, P. Franco, P. Iaquinta, M. Iusi, G. Tradigo, P. Veltri and E Zumpano, Software Tools for Medical Imaging (Extended Abstract) ADBIS 2018.
79. E. Zumpano, P. Iaquinta, L. Caroprese, G. L. Cascini, F. Dattola, P. Franco, M. Iusi, P. Veltri and E. Vocaturo, SIMPATICO 3D: A Medical Information System for Diagnostic Procedures BIBM 2018.
80. L. Caroprese, P. Veltri, E. Vocaturo, E. Zumpano, Deep Learning Techniques for Electronic Health Record Analysis. IISA 2018.
81. L. Caroprese, G. L. Cascini, P. Cinaglia, F. Dattola, P. Franco, P. Iaquinta, M. Iusi, G. Tradigo, P. Veltri, E. Zumpano, Software Tools for Medical Imaging. BIGPMED 2018.
82. A. Berlino, L. Caroprese, A. La Marca, E. Vocaturo and E. Zumpano, Augmented Reality for the Enhancement of Archaeological Heritage: a Calabrian Experience. VIPERC 2019.
83. E. Vocaturo, E. Zumpano, L. Caroprese, S. M. Pagliuso and Divina Lappano, Educational Games for Cultural Heritage. VIPERC 2019.
84. E. Vocaturo, E. Zumpano, and P. Veltri. Image pre-processing in computer vision systems for melanoma detection. BIBM 2018, 2117-2124. DOI: 10.1109/BIBM.2018.8621507
85. E. Vocaturo, E. Zumpano, and P. Veltri, "Features for Melanoma Lesions Characterization in Computer Vision Systems", 9th International Conference on Information, Intelligence, Systems and Applications, (IISA) 2018, pp. 1-8, 2018. DOI: 10.1109/IISA.2018.8633651
86. P. Cinaglia, G. Tradigo, G. L. Cascini, E. Zumpano, P. Veltri, A framework for the decomposition and features extraction from lung DICOM images. IDEAS 2018: 31-36
87. E. Vocaturo, D. Perna, E. Zumpano, Machine Learning Techniques for Automated Melanoma Detection, IEEE International Conference on Bioinformatics and Biomedicine, BIBM 2019, pp. 231017, doi: 10.1109/BIBM47256.2019.8983165.
88. E. Vocaturo, E. Zumpano, Dangerousness of dysplastic nevi: a Multiple Instance Learning Solution for Early Diagnosis. BIBM 2019: 2318-2323. DOI: 10.1109/BIBM47256.2019.8983056
89. E. Vocaturo, E. Zumpano, P. Veltri, On the Usefulness of Pre-Processing Step in Melanoma Detection Using Multiple Instance Learning, FQAS, Springer, pp. 374-382, 2019. DOI: 10.1007/978-3030-27629-4-34
90. E. Vocaturo, E. Zumpano and P. Veltri, On discovering relevant features for tongue colored image analysis, IDEAS 2019, pp. 12:1-:8, ACM 2019, Doi: 10.1145/3331076.3331124.
91. E. Zumpano, P. Iaquinta, L. Caroprese, F. Dattola, G. Tradigo, P. Veltri, E. Vocaturo, SIMPATICO 3D Mobile for Diagnostic Procedures. iiWAS 2019: 468-472. DOI: 10.1145/3366030.3366087

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93. S. Basta, S. Greco, E. Zumpano, "Integrazione di basi di dati con vincoli" - *Atti del Convegno Sistemi Evoluti per Basi di Dati*, pp. 333- 344, Aquila- Giugno, 2000.
94. S. Greco, L. Pontieri, E. Zumpano, "Integrating Possibly Conflicting Data" *Atti del Convegno Sistemi Evoluti per Basi di Dati*, pp. 241-248, Venezia, June 27-29, 2001.
95. S. Greco, A. Tagarelli, I. Trubitsyna, E. Zumpano, "A System Supporting Website Navigation" - *Atti del Convegno Sistemi Evoluti per Basi di Dati*, pp. 142-149, S. Margherita di Pula, Cagliari, Italy, June 21-23, 2004.
96. L. Caroprese, S. Greco, C. Sirangelo, E. Zumpano, A logic based approach to P2P Databases, *Atti del Convegno Sistemi Evoluti per Basi di Dati*, pp. 67-74, 2005.
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