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Focusing on the years from 2001 up to now, she repeatedly took part in the Program Committee of DX (International Workshop on Principles of Diagnosis) and was co-chair of the "Planning, Learning and Monitoring with Uncertainty and Dynamic Worlds" workshop held within ECAI'06 (European Conference on Artificial Intelligence). In 2012 she was a member of the Program Committee of DREAMAP (Diagnostic Reasoning: Model Analysis and Performance), a workshop held in conjunction with ECAI'12.
In March 2001 she presented an invited talk at the Bridge international workshop on diagnosis methods, held in Sansicario (Italy).
In 2005 she spent one month at INRIA/IRISA, Campus of Beaulieu, Rennes1 University, in Rennes (France) upon invitation of the DREAM (Diagnosing, Recommending Actions and Modelling) research group.
In October 2005 she was an invited speaker at a workshop on distributed diagnosis held in Paris, organized by the IMALAIA (Integration of Model from Automatic Control and AI) group of AFIA (French Association on Artificial Intelligence).
In April 2014 she gave a talk on "Topological Diagnosis" at the Institute for Software Technologies at TU Graz, in Austria.
With her co-author, Prof. G. Lamperti, she was the recipient of the Best Paper Award 2012, 1st edition, IEEE Systems, Man, and Cybernetics Society, Italian Chapter (for papers published in IEEE Transactions on SMC, part A, part B, and part C, in 2010 and 2011).
She has served as a reviewer for several conferences (among which AAAI, ECAI, IJCAI, KR, Safeprocess, FOSSACS, IROS, PHM) and journals (among which "Artificial Intelligence", "IEEE Transactions on System, Man, and Cybernetics" Part A, "AI Communications", "Engineering Applications of Artificial Intelligence", "Mathematical and Computer Modelling of Dynamical Systems", "IEEE Transactions on Automation Science and Engineering", "IEEE Transactions on Automatic Control", "European Journal of Control").

Selected publications

Books

Guida, G., Lamperti G. and M. Zanella, Software Prototyping in Data and Knowledge Engineering, Kluwer Academic Publishers, Dordrecht, NL, 1999

Lamperti, G. and M. Zanella, Diagnosis of Active Systems – Principles and Techniques, Engineering and Computer Science Series, Kluwer Academic Publishers, Dordrecht, NL, 2003

Book chapters

Lamperti G., Melchiori M. and M. Zanella, On Multisets in Database Systems, in Calude, C.S., Paun, Gh., Rozenberg, G., and A. Salomaa (Eds.), Multiset Processing, Volume 2235, Lecture Notes in Computer Science, Springer-Verlag, Berlin Heidelberg, D, 2001, pp. 147-215

G. LAMPERTI; M. ZANELLA (2008). On processing temporal observations in monitoring of discrete-event systems. In: Y. MANOLOPOULOS; J. FILIPE; P. CONSTANTOPOULOS; J. CORDEIRO , Enterprise Information Systems, ICEIS 2006 Revised Selected Papers. Springer-Verlag, BERLIN HEIDELBERG p. 135 – 146

G. LAMPERTI; M. ZANELLA; G. CHIODI; L. CHIODI (2008). Incremental Determinization of Finite Automata in Model-Based Diagnosis of Active Systems. In: I. LOVREK; R.J. HOWLETT; L.C. JAIN EDITORS, Knowledge-Based Intelligent Information and Engineering Systems. Springer, HEIDELBERG p. 362 – 374

Discussion

Zanella M. (2012). Discussion on: "Decentralized Fault Free Model Approach for FaultDetection and Isolation of Discrete Event Systems". EUROPEAN JOURNAL OF CONTROL (ISSN:1435-5671) pp. 94 - 97 Vol. 18 number 1

Journal papers

Lamperti G.,Zanella M. (2011). Principles of distributed model-based diagnosis of active systems. INTERNATIONAL JOURNAL OF COMPUTER RESEARCH (ISSN:1535-6698) p. 31 - 47 Vol. 19(1)

Lamperti G.,Zanella M. (2011). Monitoring of active systems with stratified uncertain observations. IEEE TRANSACTIONS ON SYSTEMS MAN AND CYBERNETICS PART A-SYSTEMS AND HUMANS (ISSN:1083-4427) p. 356 - 369 Vol. 41(2)

S. CERUTTI; G. LAMPERTI; M. SCARONI; M. ZANELLA; D. ZANNI (2007). A diagnostic environment for automaton networks. SOFTWARE-PRACTICE & EXPERIENCE (ISSN:0038-0644) p. 365 - 415 Vol. 37

LAMPERTI G; M. ZANELLA; ZANNI D (2007). Incremental processing of temporal observations in Model-Based Reasoning. AI COMMUNICATIONS (ISSN:0921-7126) p. 27 - 37 Vol. 20(1)

LAMPERTI G; ZANELLA M (2006). Flexible diagnosis of discrete-event systems by similarity-based reasoning techniques. ARTIFICIAL INTELLIGENCE (ISSN:0004-3702) p. 232 - 297 Vol. 170(3)

LAMPERTI G; M. ZANELLA (2004). A bridged diagnostic method for the monitoring of polymorphic discrete-event systems. IEEE TRANSACTIONS ON SYSTEMS MAN AND CYBERNETICS PART B-CYBERNETICS (ISSN:1083-4419) p. 2222 - 2244 Vol. 34(5)

G. LAMPERTI; M. ZANELLA (2003). EDEN: An intelligent software environment for diagnosis of discrete-event systems. APPLIED INTELLIGENCE (ISSN:0924-669X) p. 55 - 77 Vol. 18

LAMPERTI G; M. ZANELLA (2002). Diagnosis of discrete-event systems from uncertain temporal observations. ARTIFICIAL INTELLIGENCE (ISSN:0004-3702) p. 91 - 163 Vol. 137

BARONI P; GUIDA G; M. ZANELLA (2001). GART: a tool for experimenting with approximate reasoning models. EXPERT SYSTEMS WITH APPLICATIONS (ISSN:0957-4174) p. 15 - 30 Vol. 21 (1)

P. BARONI; GUIDA G.; ZANELLA M. (2001). Managing uncertainty in diagnosis of acute coronaric ischemia. ARTIFICIAL INTELLIGENCE IN MEDICINE (ISSN:0933-3657) p. 129 - 147 Vol. 23(2)

BARONI P; LAMPERTI G; POGLIANO P; M. ZANELLA (2000). Diagnosis of a class of distributed discrete-event systems. IEEE TRANSACTIONS ON SYSTEMS MAN AND CYBERNETICS PART A-SYSTEMS AND HUMANS (ISSN:1083-4427) p. 731 - 752 Vol. 30(6)

G. LAMPERTI; P. POGLIANO; M. ZANELLA (2000). Diagnosis of active systems by automata-based reasoning techniques. APPLIED INTELLIGENCE (ISSN:0924-669X) p. 217 - 237 Vol. 12

BARONI P; LAMPERTI G; POGLIANO P; M. ZANELLA (1999). Diagnosis of large active systems. ARTIFICIAL INTELLIGENCE (ISSN:0004-3702) p. 135 - 183 Vol. 110(1)

Conference proceedings

X. SU; M. ZANELLA; A. GRASTIEN (2016). Diagnosability of discrete-event systems with uncertain observations. In International Joint Conference on Artificial Intelligence (IJCAI-16), p. 1265-1271.