

# Curriculum Vitae

Fabio Patrizi

October 9, 2016

## General Information

Full Name	Fabio Patrizi
Date of Birth	19/12/1978
Place of Birth	Rome, Italy
Citizenship	Italian
E-mail	<code>patrizi@dis.uniroma1.it</code>
Spoken Languages	Italian (Mother Tongue), English (Excellent), Spanish (Excellent)

## Summary

Fabio Patrizi has been a research Fellow at the KRDB Center, Faculty of Computer Science of the Free University of Bozen-Bolzano, from October 2014 to September 2016, as the Principal Investigator of a 2-year project, “Verification and Synthesis from Components of Processes that Manipulate Data”, funded by the Provincia Autonoma di Bolzano - Alto Adige. Before, he has held several academic appointments, including an RTD-A at DIAG - Sapienza University of Rome, and a Postdoc (Research Associate) at Imperial College, London (UK). His research activity, carried out in Rome (Italy), London (UK), San Diego (CA,USA), and Bolzano (Italy), concerns theoretical, methodological, and practical aspects in different areas of Computer Science and Artificial Intelligence, including Formal Methods, Knowledge Representation, Reasoning about Action, non-standard forms of Planning in Artificial Intelligence, Service-oriented Computing, and Business Processes.

Fabio Patrizi regularly publishes the results of his research in top-level international journals and conferences. He has co-authored over 40 scientific papers, published in international journals or proceedings of international conferences (one of which appointed best paper), and has been invited to present the results of his research at various institutions (one talk was funded by the RMIT Melbourne’s *Visiting Researcher’s Award*). His Google Scholar profile reports 905 citations and an h-index of 16. According to the Scopus database, he meets 100% of the requirements needed to apply for the national scientific habilitation as Associate Professor for sector 01/B1.

He is regularly invited as a PC member to various top-level conferences in the areas of his interest, and as a reviewer or guest editor for several international journals. In 2015, he has been selected as a tutorial lecturer at the prestigious International Joint Conference on Artificial Intelligence (IJCAI’15). He serves as co-responsible for the selection of papers submitted to the Artificial Intelligence section of the well-known *Computing Research Repository*. He has been local chair of the 9th Italian Convention on Computational Logic (CILC’12) and co-chair of the PhD Symposium of the 11th International Conference on Service Oriented Computing (ICSOC’13). Fabio Patrizi regularly teaches courses at academic level.

## Education

Year	Type	Institution	Notes
2009	PhD	Sapienza University	-
2009	PhD School "GAMES"	European Science Foundation	-
2008	Research Visit	University of California, San Diego, Ca, USA	Jan - Jul 2008
2006	PhD School "ESLLI"	Malaga University (Spain)	-
2004	Licensure in Engineering	Ordine degli Ingegneri della Provincia di Roma	-
2003	Laurea Degree	Sapienza University	5 yrs, Final Mark: 107/110

## Appointments

### Academic Appointments

Start	End	Institution	Position
Oct 2014	Sep 2016	KRDB – Free University of Bozen-Bolzano	Research Fellow
Oct 2011	Sep 2014	DIAG – Sapienza University	Fixed-term Assistant Professor (RTD-A, art.1 comma 14 L. 230/05)
Aug 2011	Sep 2011	DIAG – Sapienza University	Research Associate
Sep 2010	Aug 2011	DoC – Imperial College, London, UK	Research Associate
Feb 2009	Sep 2010	DIAG – Sapienza University	Research Associate
Jan 2006	Oct 2006	DIAG – Sapienza University	Research Assistant
Apr 2005	Oct 2005	Udine University	Research Associate
Nov 2004	Mar 2005	DIAG – Sapienza University	Research Assistant
Feb 2004	Jul 2004	DIAG – Sapienza University	Research Assistant

### Industrial Appointments

Start	End	Company	Position
Jun 2007	Jul 2007	Tool Area S.r.l.	IT Consultant
Jul 2006	Jul 2006	Tool Area S.r.l.	Teacher of "Oracle Intermediate" at Sytel-Reply
Jan 2006	Mar 2006	Tool Area S.r.l.	Web Architecture and Web Services Consultant

## Teaching Experience

Year	Institution	Lecture/Course
2016/2017	Sapienza University (A)	Smart Objects (Course Leader, 6 CFU)
2015/2016	Sapienza University (A)	Smart Objects (Course Leader, 6 CFU)
2014/2015	Sapienza University (B)	Great Ideas in ICT (PhD course, Lecturer)
2013/2014	Sapienza University (B)	Foundations of Programming (Course Leader, 6 CFU)
2013/2014	Sapienza University (B)	Great Ideas in ICT (PhD course, Lecturer)
2012/2013	Sapienza University (B)	Foundations of Programming (Course Leader, 6 CFU)
2011/2012	Sapienza University (B)	Foundations of Programming (Lecturer, 3 CFU)
2010/2011	Imperial College, London, UK (C)	Databases (Teaching Assistant) (Course Leader: Prof. P. Mc Brien)
2010/2011	Imperial College, London, UK (C)	Programming (Teaching Assistant) (Course Leader: Prof. A.J. Field)
2009/2010	Sapienza University (B)	Software Design (Tutor, 3 CFU) (Course Leader: Prof. G. De Giacomo)
2009/2010	Sapienza University (B)	Formal Methods for Software and Services (Guest Lecturer) (Course Leader: Prof. G. De Giacomo)
2008/2009	Sapienza University (B)	Software Design (Tutor, 3 CFU) (Course Leader: Prof. G. De Giacomo)
2008/2009	Sapienza University (B)	Formal Methods for Software and Services (Guest Lecturer) (Course Leader: Prof. G. De Giacomo)
2008/2009	Sapienza University (B)	Elective in Software and Services (Guest Lecturer) (Course Leader: Prof. G. De Giacomo)
2007/2008	Sapienza University (B)	Software Design I (Tutor) (Course Leader: Prof. G. De Giacomo)
2007/2008	Sapienza University (B)	Seminars in Software Engineering (Guest Lecturer) (Course Leader: Prof. G. De Giacomo)
2006/2007	Sapienza University (B)	Software Design I (Tutor) (Course Leader: Prof. M. Cadoli)
2006/2007	Sapienza University (B)	Seminari di Ingegneria del Software (Guest Lecturer) (Course Leader: Prof. G. De Giacomo)
2005/2006	Sapienza University (B)	Software Design I (Tutor) (Course Leader: Prof. M. Cadoli)
2005/2006	Sapienza University (B)	Formal Methods (Guest Tutor) (Course Leader: Prof. M. Cadoli)

**A** : M. Sc. in Product Design, Faculty of Architecture

**B** : B. Sc./M. Sc. in Engineering in Computer Science and Control Engineering, Faculty of Information Engineering, Informatics, and Statistics

**C** : B. Eng. in Computing, Faculty of Engineering

## Awards and Honors

Year	Title
2013	Best Paper Award at the 7th International Conference on Web Reasoning and Rule Systems (RR-2013): Diego Calvanese, Giuseppe De Giacomo, Marco Montali and Fabio Patrizi, <i>Verification and Synthesis in Description Logic Based Dynamic Systems</i> .
2011	RMIT Melbourne (Vic, AU) Visiting Researcher's Award

## Funding Information

Year	Title	Program	Grant Value
2014	Verification and Synthesis from Components of Processes that Manipulate Data (PI)	Mobilità di Ricercatori e Ricercatrici – Provincia Autonoma di Bolzano - Alto Adige	~ 130.000€ (2 years)

## Research Activity

The research activity of Fabio Patrizi concerns theoretical, methodological, and practical aspects in different areas of **Computer Science** and **Artificial Intelligence**. He has developed tools and techniques based on **Formal Methods** for the solution of problems that arise in the areas of **Knowledge Representation** and **Reasoning about Action**, non-standard forms of **Planning in Artificial Intelligence**, **Service-oriented Computing**, and **Business Processes**. All the results of his research have been published in top-level conferences in relevant areas. He collaborates with internationally renown researchers. His research activity has been carried out in Rome (Italy), London (UK), Bolzano (Italy), and San Diego (CA, USA) during a 6-month visit as a PhD student. His main research accomplishments in all the areas of interest are summarized below, together with the respective publication venues (see Publication List for a fully comprehensive list of publications).

**Behavior Composition** (AAAI'07, KR'08, PhD Thesis (2009), ICAPS'09, AAAI'10, AIJ (2013), ICAPS'14) Fabio Patrizi has proposed, together with Giuseppe De Giacomo (Sapienza University of Rome, Italy) and Sebastian Sardina (RMIT, Melbourne, VIC, AU), a formal framework and a solution technique for the problem of *behavior composition*. The problem consists in coordinating a set of available reactive agents with the aim of realizing a desired high-level procedure that would not be realizable by any of the available agents alone. This line of work is based on a bridge between AI and Formal Verification&Synthesis techniques, where temporal logics are used as a mean to express the requirements on the coordination of the agents, while the coordination strategy is obtained by applying synthesis techniques. The achieved results have led to the implementation of an actual system for the composition of smart devices in an intelligent house, in the context of the EU-funded STREP project SM4All (SMart homes for All).

**Planning Programs** (AAMAS'10, ICAPS'11, AIJ (2016)) Fabio Patrizi is one of the proposers of a new form of declarative agent programming paradigm, known as *planning programs*. These are goal networks which provide a high-level representation of the desired behavior of some agent, in terms of the goals the agent needs to achieve and maintain, while operating in a dynamic domain. In a first foundational work, in collaboration with Giuseppe De Giacomo and Sebastian Sardina, he has devised a sound and complete solution technique for the general problem, based on the use of Formal Synthesis techniques. In a further work, co-authored with Alfonso Gerevini and Alessandro Saetti (Brescia University, Italy) he has devised an efficient planning-based technique, specialized for deterministic domains. Such works led to the submission of a further work to the *Artificial Intelligence Journal (AIJ)*, currently under its second review round.

**Verification of Multi-Agent Systems for Artifact-Centric Scenarios** (IJCAI'11, KR'12, JAIR (2013)) He collaborates with Alessio Lomuscio (Imperial College, London, UK) and Francesco Belardinelli (Universit d'Evry, France), on the problem of model checking multi-agent systems

against epistemic first-order extensions of temporal specifications, in the context of artifact-centric scenarios (where business processes are represented in a modular way, in terms of process fragments and data structures). This research, carried out as part of the EU-funded STREP project ACSI (Artifact-centric Service Interoperation), has shown that, in systems with an infinite number of states having a relational structure, a *boundedness condition* on the number of elements is sufficient to guarantee decidability of the verification task, in the case of a branching-time, first-order logic, with unrestricted use of quantifiers. This intuition and the corresponding approach proved useful, and have been exploited, also in other areas such as Reasoning about Action.

**Verification of Action Theories** (KR'12, IJCAI'13, ECAI'14, AAMAS'14, *Studia Logica* (2015), AIJ (accepted with minor revision, 2016), KR'16, AAAI'16) In this line of work, a boundedness condition has been exploited for verification purposes in the context of Action Theories expressed in Situation Calculus. Together with Giuseppe De Giacomo, Yves Lésperance (York University, Toronto, CA), Diego Calvanese (Free University of Bozen-Bolzano), and Sebastian Sardina (RMIT University, Melbourne, Vic (AU)) he has developed an abstraction technique for the verification of first-order  $\mu$ -calculus specifications, used to characterize the models of a given theory. The boundedness condition and related notions isolated in previous work proved particularly useful also in this context.

**Progression of Action Theories** (IJCAI'13, KR'14, JELIA'14) Together with Stavros Vassos (Sapienza University), he has identified a class of practically-relevant progressable action theories, expressed in the Situation Calculus. This research was inspired by the boundedness condition isolated in previous work and has contributed to broadening the set of known progressable action theories, in addition to drawing a clear picture of their classification.

**Synthesis of infinite plans** (KR'10, IJCAI'11, IJCAI'13): he has investigated the problem of automatically building infinite plans that satisfy specifications expressed in temporal logics, and devised corresponding solution techniques. He has contributed to devising two approaches to encode the problem as standard (classical or nondeterministic) planning, with the aim of making state-of-the-art solvers available for their solution. Together with Hector Geffner (Universitat Pompeu Fabra, Barcelona, Spain) and Nir Lipovetzky (University of Melbourne, Vic, AU), he has devised a translation scheme that allows to transform the search for an infinite plan satisfying an LTL property (in nondeterministic domains) into an instance of standard conditional planning. This work contributed to put forward planning as a viable alternative to solve problems, such as Formal Synthesis, arising in other areas than AI.

**Service Composition** (IJFCS (2008), *IEEE Data Eng. Bulletin* (2008), ICWS'07, WS-FM'09, *Web Services Foundations* (2014)): he has worked on this line of research during his PhD, following the work previously initiated by his group, which led to the definition of the so-called Roman Model. In his PhD thesis, he has generalized previous results by proposing a solution technique based on the notion of simulation between transition systems. This improved the previous techniques in term of time complexity and robustness. This approach has laid the bases of the results achieved in the context of Behavior Composition

**Data Abstraction Techniques for Verification and Synthesis** (ICDT'09, ICSOC'11, ICSOC'12, RR'13, IJCAI'15): he started working on this topic as a visiting scholar at UCSD, during his PhD, when he collaborated with Alin Deutch, Victor Vianu (UCSD, San Diego, CA, USA), and Rick Hull (IBM Watson Research Center, Hawthorne, NY, USA) to a work on the verification of artifact-centric business processes. The resulting paper, published at ICDT 2009, is one of his most cited ones (172 citations, according to Google Scholar, July 2015). He has kept working on this topic in connection with many of the research lines mentioned above, such as Behavior Composition, Verification of MAS and Action theories, and Service Composition. This research is having a practical impact on the formal analysis, verification and synthesis in so called *Artifact-based Business Processes*.

Recently, the abstraction approach has been applied also to dynamic systems whose state is described in terms of an ontology (expressed in Description Logic). The work describing this extension, co-authored with Giuseppe De Giacomo, Diego Calvanese and Marco Montali (Free University of Bozen-Bolzano) was awarded Best Paper at RR'13.

**Constraint Satisfaction Problems** (ISMIS'06, ECAI'06, CPAIOR'06, Annals OR (2009), Constraints (2008)): in the beginning of his PhD, together with Marco Cadoli, he has focussed on problems related to CSP, in particular on comparing different solution approaches based on the use of ASP engines, SAT, and commercial solvers, and investigated the possibility of decomposing a problem into smaller and easier ones, in order to obtain performance improvements.

## Summary of Scientific Achievements

Product type	Number
International Journal Papers	9
International Conference Papers	34
International Workshop Papers	10
Edited Works	2
Contributions to Scientific Books	2
National Journal Papers	1
National Conference Papers	2

## Impact Measures

(As of Jul 25, 2016, including all products from 2005, according to Google Scholar)

Type	Value
Total Citations	987
H-index	16

\*(H-Index/academic seniority), with academic seniority defined as in the call (largest integer number of years contained in the period from date of PhD to expiration of call).

## National Habilitation Requirements

According to Scopus, as of Sep 28, 2015, Fabio Patrizi's indicators meet 100% of the requirements to apply for the national scientific habilitation as Associate Professor for sector 01/B1:

Indicator	Value	Required Value (01/B1)
Normalized # of Citations	22.36	9.15
Contemporary H-index*	7	5

\*Computed according to the official ANVUR definition.

## Research Projects

Fabio Patrizi is, or has been, involved in the following research projects:

Title	Role	Funding Agency
Verification and Synthesis from Components of Processes that Manipulate Data	Principal Investigator	Provincia Autonoma di Bolzano - Alto Adige
Artifact-centric service interoperation	Participant	EU Commission
SM4All (SMart homes for All)	Participant	EU Commission

Moreover, in 2002-2004, as an undergraduate student, he has been member of the robotic soccer team, led by Prof. Daniele Nardi, "SPQR-Legged" at DIAG - Sapienza Università di Roma. As a team member, he has participated in the following international competitions: RoboCup 2002 (Fukuoka, Japan); RoboCup 2003 (Padova, Italy); RoboCup 2004 (Lisbona, Portugal). Further, he has carried out research and software development activities concerning, in particular, probabilistic planning and robotic vision.

## Professional Service

Fabio Patrizi is regularly involved in the main events and activities organized by the scientific community, related to his research areas.

## Conference and Workshop Organization

Event	Role
ICSOC 2013 (11th International Conference on Service Oriented Computing)	PhD Symposium co-chair
CILC 2012 (9th Italian Convention on Computational Logic)	Organizing Committee Chair

## PC Membership

Fabio Patrizi is regularly invited as a PC member of several top-level conferences: AAAI, IJCAI, ICDDT, AAMAS, ECAI, KR, ICAPS, BPM, IROS, ICSOC.

## Journal Reviewing and Editorial Service

Fabio Patrizi is regularly invited as a reviewer in the following top-level international journals: JAIR, JODS, IJFCS, TKDE, JLC, TODS, TSC, TWEB, JINFCO, Studia Logica, JCSS, TOCL.

He has served as a Guest Editor for the international journal “Computing”.

From Jun 2015, he is co-responsible for the selection of the papers submitted to the Artificial Intelligence section of the well-known *Computing Research Repository* (*CORR*, <http://arxiv.org/corr/home>).

## Paper Presentation

He has presented the results of his research in the following events:

Year	Event	Paper
2014	14th European Conference on Logics in Artificial Intelligence (JELIA'14)	Action Theories over Generalized Databases with Equality Constraints
2013	23rd International Joint Conference on Artificial Intelligence (IJCAI'13)	Fair LTL Synthesis for Non-Deterministic Systems using Strong Cyclic Planners
2012	10th International Conference on Service-oriented Computing (ICSOC'11)	Verification of GSM-based Artifact-Centric Systems Through Finite Abstraction
2011	22nd International Joint Conference on Artificial Intelligence (IJCAI'11)	Computing Infinite Plans for LTL Goals Using a Classical Planner
2010	12th International Conference on the Principles of Knowledge Representation and Reasoning (KR'10)	Generalized Planning with Loops under Strong Fairness Constraints
2009	6th International Workshop on Web Services and Formal Methods (WS-FM'09)	Automated Composition of Nondeterministic Stateful Services
2009	4th European Young Researchers Workshop on Service-oriented Computing (YRSOC'09)	An Introduction to Simulation-based Techniques for Automated Service Composition
2007	IEEE 2007 International Conference on Web Services (ICWS 2007)	Automatic Workflows Composition of Mobile Services
2006	3rd International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems	On the separability of subproblems in Benders decompositions

## Invited Talks

He has been invited to give the following talks at various national and international institutions:

Date	Inviting Institution	Title
May 2014	Free University of Bozen/Bolzano (Italy)	Action Theories over Generalized Databases with Equality Constraints
Dec 2011	RMIT University, Melbourne, Vic (AU)	Verification of Deployed Artifact Systems via Data Abstraction
Nov 2011	Free University of Bozen/Bolzano (Italy)	Verification of Deployed Artifact Systems via Data Abstraction
Feb 2010	University of Brescia (Italy)	Two-player Game Structures for Service Composition, Synthesis and Generalized Planning
Feb 2010	University of Brescia (Italy)	Automated Service Composition and Synthesis
Feb 2008	University of California, San Diego (CA, USA)	Automatic Composition of Services

## Conference Tutorials

Fabio Patrizi has been selected as a tutorial lecturer at the 24th International Joint Conference on Artificial Intelligence (IJCAI'15). Tutorial Title: *Automatic Synthesis & Composition of Agent Behaviors*.



# List of Publications

## International Journals

- [IJ9] Giuseppe De Giacomo, Yves Lespérance, Fabio Patrizi. Bounded Situation Calculus Action Theories. *Artificial Intelligence Journal (AIJ)*, 237:172-203. Elsevier. 2016.  
Impact Factor 2014: 3.371.
- [IJ8] Giuseppe De Giacomo, Alfonso Emilio Gerevini, Fabio Patrizi, Alessandro Saetti, Sebastian Sardina. Agent Planning Programs. *Artificial Intelligence (AIJ)*, 231:64-106. Elsevier. 2016.  
Impact Factor 2014: 3.371.
- [IJ7] Giuseppe De Giacomo, Yves Lespérance, Fabio Patrizi, Stavros Vassos. Progression and Verification of Situation Calculus Agents with Bounded Beliefs. *Studia Logica*, 104(4): 705-739 (2016). Springer. 2016.  
Impact Factor 2014: 0.342
- [IJ6] Francesco Belardinelli, Alessio Lomuscio, Fabio Patrizi. Verification of Agent-Based Artifact Systems. *J. Artif. Intell. Res. (JAIR)*, 51: 333-376 (2014). AAAI Press. 2014.  
Impact Factor 2014: 0.904
- [IJ5] Giuseppe De Giacomo, Fabio Patrizi, Sebastian Sardina. Automatic Behavior Composition Synthesis. *Artificial Intelligence (AIJ)*, 196: 106-142. Elsevier. 2013.  
Impact Factor 2014: 3.371.
- [IJ4] Marco Cadoli and Fabio Patrizi. On the separability of subproblems in Benders decompositions. *Annals of Operations Research*, 171:27–43. Springer Netherlands. 2009.  
Impact Factor 2014: 1.217.
- [IJ3] Daniela Berardi, Fahima Cheikh, Giuseppe De Giacomo, Fabio Patrizi. Automatic service composition via simulation. *International Journal of Foundations of Computer Science*, 19(2):429–451. World Scientific. 2008.  
Impact Factor 2014: 0.459.
- [IJ2] Diego Calvanese, Giuseppe De Giacomo, Maurizio Lenzerini, Massimo Mecella, Fabio Patrizi. Automatic Service Composition and Synthesis: the Roman Model. *IEEE Data Engineering Bulletin*, 31(3):18–22. IEEE Computer Society. 2008.  
Impact Factor 2014: n/a.
- [IJ1] Toni Mancini, Davide Micaletto, Fabio Patrizi, Marco Cadoli. Evaluating ASP and commercial solvers on the CSPLib. *Constraints*, 13(4):407–436. Springer Netherlands. 2008.  
Impact Factor 2014: 1.152.

## International Conferences

(For each entry, the corresponding ranking according to the GII-GRIN conference rating is reported – see <http://www.consorzio-cini.it:8080/consultazioneclassificazioni/>.)

- [IC34] Diego Calvanese, Marco Montali, Fabio Patrizi, Michele Stawowy. Plan Synthesis for Knowledge and Action Bases. In *Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI'16)*. pp. 1022-1029. AAAI Press. 2016. GII-GRIN conference rating: A++.
- [IC33] Giuseppe De Giacomo, Yves Lespérance, Fabio Patrizi, Sebastian Sardina. Verifying ConGolog Programs on Bounded Situation Calculus Theories. In *Proceeding of the 30th AAAI Conference on Artificial Intelligence (AAAI'16)*, pp. 950-956. AAAI Press. 2016. GII-GRIN conference rating: A++.
- [IC32] Diego Calvanese, Giuseppe De Giacomo, Marco Montali, Fabio Patrizi. On First-Order  $\mu$ -Calculus over Situation Calculus Action Theories. In *Proceeding of the 15th International Conference on the Principles of Knowledge Representation and Reasoning (KR'16)*, pp. 411-420. AAAI Press. 2016. GII-GRIN conference rating: A+.

- [IC31] Diego Calvanese, Giuseppe De Giacomo, Marco Montali, Fabio Patrizi. Description Logic Based Dynamic Systems: Modeling, Verification, and Synthesis. In *Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI'15)*, pp. 4247-4253. 2015. GII-GRIN conference rating: A++.
- [IC30] Giuseppe De Giacomo, Valsamis Ntouskos, Fabio Patrizi, Stavros Vassos, Davide Aversa Service Composition in Virtual Environments Based on Videogame Engines In *Proceedings of the 8th IEEE International Conference on Service Oriented Computing & Applications (SOCA'15)*, pp. 101-107. 2015. GII-GRIN conference rating: W.
- [IC29] Fabio Patrizi, Stavros Vassos. Action Theories over Generalized Databases with Equality Constraints. In *Proceedings of the 14th European Conference on Logics in Artificial Intelligence (JELIA'14)*, pp. 472-485. Springer. 2014. GII-GRIN conference rating: B.
- [IC28] Giuseppe De Giacomo, Yves Lespérance, Fabio Patrizi, Stavros Vassos LTL Verification of Online Executions with Sensing in Bounded Situation Calculus. In *Proceedings of 21st European Conference on Artificial Intelligence (ECAI'14)*, pp. 369-374. IOS Press. 2014. GII-GRIN conference rating: A.
- [IC27] Giuseppe De Giacomo, Fabio Patrizi, Sebastian Sardina. Building Virtual Behaviors from Partially Controllable Available Behaviors in Nondeterministic Environments. In *Proceedings of the 24th International Conference on Automated Planning and Scheduling (ICAPS'14)*, pp. 523,526. AAAI Press. 2014. GII-GRIN conference rating: A.
- [IC26] Fabio Patrizi, Stavros Vassos. Action Theories over Generalized Databases with Equality Constraints (Extended Abstract). In *Proceeding of the 14th International Conference on the Principles of Knowledge Representation and Reasoning (KR'14)*, (Electronic Proceedings). AAAI Press. 2014. GII-GRIN conference rating: A+.
- [IC25] Giuseppe De Giacomo, Yves Lespérance, Fabio Patrizi, Stavros Vassos. Progression and Verification of Situation Calculus Agents with Bounded Beliefs. In *Proceedings of the 13th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2014)*, pp. 141–148. IFAA-MAS/ACM. 2014. GII-GRIN conference rating: A++.
- [IC24] Fabio Patrizi, Nir Lipovetzky, Hector Geffner. Fair LTL Synthesis for Non-Deterministic Systems using Strong Cyclic Planners. In *Proceedings of the 23rd International Joint Conference on Artificial Intelligence (IJCAI'13)*, pp. 2343-2349. AAAI Press. 2013. GII-GRIN conference rating: A++.
- [IC23] Giuseppe De Giacomo, Yves Lespérance, Fabio Patrizi. Bounded Epistemic Situation Calculus Theories. In *Proceedings of the 23rd International Joint Conference on Artificial Intelligence (IJCAI'13)*, pp. 846-853. AAAI Press. 2013. GII-GRIN conference rating: A++.
- [IC22] Stavros Vassos, Fabio Patrizi. A Classification of First-Order Progressable Action Theories in Situation Calculus. In *Proceedings of the 23rd International Joint Conference on Artificial Intelligence (IJCAI'13)*, pp. 1132-1138. AAAI Press. 2013. GII-GRIN conference rating: A++.
- [IC21] Diego Calvanese, Giuseppe De Giacomo, Marco Montali, Fabio Patrizi. Verification and Synthesis in Description Logic Based Dynamic Systems (Best Paper Award). In *Proceedings of the 7th International Conference on Web Reasoning and Rule Systems (RR'13)*, pp. 50-64. Springer. 2013. (Best Paper Award). GII-GRIN conference rating: W.
- [IC20] Francesco Belardinelli, Alessio Lomuscio, Fabio Patrizi. Verification of GSM-based Artifact-Centric Systems Through Finite Abstraction. In *Proceedings of the 10th International Conference on Service-Oriented Computing (ICSOC'12)*, pp. 17-31. Springer. 2012. GII-GRIN conference rating: A-.
- [IC19] Matteo Leonetti, Luca Iocchi, Fabio Patrizi. Automatic Generation and Learning of Finite-State Controllers. In *Proceedings of the 15th International Conference on Artificial Intelligence: Methodology, Systems, and Applications (AIMSA'12)* pp. 135-144. Springer. 2012. GII-GRIN conference rating: W.

- [IC18] Francesco Belardinelli, Alessio Lomuscio, Fabio Patrizi. An Abstraction Technique for the Verification of Artifact-Centric Systems. In *Proceeding of the 13th International Conference on the Principles of Knowledge Representation and Reasoning (KR'12)*, pp. 319-328. AAAI Press. 2012. GII-GRIN conference rating: A+.
- [IC17] Giuseppe De Giacomo, Yves Lespérance, Fabio Patrizi. Bounded Situation Calculus Action Theories and Decidable Verification. In *Proceeding of the 13th International Conference on the Principles of Knowledge Representation and Reasoning (KR'12)*, pp. 467-477. AAAI Press. 2012. GII-GRIN conference rating: A+.
- [IC16] Francesco Belardinelli, Alessio Lomuscio, Fabio Patrizi. Verification of Deployed Artifact Systems via Data Abstraction. In *Proceedings of the 9th International Conference on Service-Oriented Computing (ICSO'11)*, pp. 142-156. Springer. 2011. GII-GRIN conference rating: A-.
- [IC15] Francesco Belardinelli, Alessio Lomuscio, Fabio Patrizi. A Computationally-Grounded Semantics for Artifact-Centric Systems and Abstraction Results. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI'11)*, pp. 738-743. AAAI Press. 2011. GII-GRIN conference rating: A++.
- [IC14] Fabio Patrizi, Nir Lipovetzky, Giuseppe De Giacomo, Hector Geffner. Computing Infinite Plans for LTL Goals Using a Classical Planner. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI'11)*, pp. 2003-2008. AAAI Press. 2011. GII-GRIN conference rating: A++.
- [IC13] Alfonso E. Gerevini, Fabio Patrizi, Alessandro Saetti. An Effective Approach to Realizing Planning Programs. In *Proceedings of the 21st International Conference on Automated Planning and Scheduling (ICAPS'11)*, pp. 323-326. AAAI Press. 2011. GII-GRIN conference rating: A.
- [IC12] Giuseppe De Giacomo, Paolo Felli, Fabio Patrizi, Sebastian Sardina. Two-Player Game Structures for Generalized Planning and Agent Composition. In *Proceedings of the 24th AAAI Conference on Artificial Intelligence (AAAI'10)*, pp. 297-302. AAAI Press. 2010. GII-GRIN conference rating: A++.
- [IC11] Giuseppe De Giacomo, Fabio Patrizi, Sebastian Sardina. Generalized Planning with Loops under Strong Fairness Constraints. In *Proceedings of the 12th International Conference on the Principles of Knowledge Representation and Reasoning (KR'10)*, pp. 351-361. AAAI Press. 2010. GII-GRIN conference rating: A+.
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Rome,

Sincerely,

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