Antonio Di Stasio

Personal Information

Name & Surname	Antonio Di Stasio
email	antonio.di-stasio AT city.ac.uk
Person Webpage	antoniodistasio.github.io
Google Scholar	https://scholar.google.com/citations?user=qnH_-7AAAAAJ&hl=en
DBLP	https://dblp.org/pid/157/8638.html

Current Position

Date	Starting from August 1, 2024
Qualification	Lecturer in Computer Science
Department	Department of Computer Science
Institute	City, University of London, UK
Date (from - to)	Jan 3, 2023 - July 31, 2024
Qualification	Senior Research Associate
Project	Advanced ERC "WhiteMech"
Department	Department of Computer Science
Institute	University of Oxford, UK
Advisor	Prof. Giuseppe De Giacomo

Work Experience

Date (from - to)	July 1, 2020 - Dec 2022
Qualification	Post-doctoral researcher
Project	Advanced ERC "WhiteMech"
Department	Department of Computer, Control and Management Engineering
Institute	"La Sapienza", University of Rome, Italy
Advisor	Prof. Giuseppe De Giacomo
Date (from - to)	June 1, 2019 - May 31, 2020
Qualification	Post-doctoral researcher
Project	Methods and techniques to support digital creativity
Department	Department of Computer, Control and Management Engineering
Institute	"La Sapienza", University of Rome, Italy
Advisor	Prof. Massimo Mecella
Date (from - to)	Aug 3, 2015 - Oct 31, 2015
Qualification	Research Scholarship
Project	Formal methods based on game theory
Institute	University of Naples "Federico II", Italy
Supervisor	Prof. Aniello Murano

Research Interests

Topics	Game Theory, Parity Games, Formal Aspects of System Specification, Verification, Synthesis, Automated Planning, and Artificial Intelligence.

Education Degrees

Date (from - to)	November 2015 - February 2019
Qualification	Doctorate (Ph.D.)
Field	Mathematical and Computer Science
Institute	University of Naples "Federico II", Italy
Thesis	Reasoning about LTL Synthesis over finite and infinite games
Final grade	Excellent
Supervisor	Prof. Aniello Murano

Date (from - to)	2011 - 2015
Degree	Master Degree in Computer Science (Class LM-18)
Institute	University of Naples "Federico II", Italy
Obtained on	March 16th, 2015
Final mark	110/110 cum laude
Thesis	An Accelerated Algorithm for log-color parity games
Supervisor	Prof. Aniello Murano

Former Positions

Date (from - to)	November 5, 2017 - May 21, 2018
Qualification	Visiting Scholar
Department	Department of Computer Science
Institute	Rice University, Houston, Texas, USA
Supervisor	Prof. Moshe Y. Vardi

Outreach Activities

Date	September 2024
Activity	External Examiner for PhD Thesis, Birberk, University of London

Date	January 19 2024- February 2, 2024
Activity	Master in Advanced Computer Science Admission, Department of Computer Science, University of Oxford

Date (from - to)	September 2023 - July 2024
Activity	Research Member of Common Room, Kellogg College

Teaching Activities (Lecturer)

Course	Game-Theoretic Approach to Planning and Synthesis
Date (from - to)	15-19 July 2023
Event	European Summer School on Artificial Intelligence 2023, Athens, Greece

Course	Game-Theoretic Approach to Planning and Synthesis
Date (from - to)	24-28 July 2023

Event	European Summer School on Artificial Intelligence 2023, Ljubljana, Slovenia
Course	Game-Theoretic Approach to Planning and Synthesis
Date (from - to)	4-8 July 2022
Institute	University of Rome, "La Sapienza" & ICT-48 TAILOR
Type	PhD Course

Teaching Activities (Class Tutor)

Course	Foundations of Self-Programming Agents
Date (from - to)	January 2024 - March 2024, Hilary Term
Institute	Department of Computer Science, University of Oxford
Principal Instructor	Prof. Giuseppe De Giacomo

Course	Foundations of Self-Programming Agents
Date (from - to)	January 2023 - March 2023, Hilary Term
Institute	Department of Computer Science, University of Oxford
Principal Instructor	Prof. Giuseppe De Giacomo

Teaching Assistant

Course	Programming - Lab.
Date (from - to)	September 2018 - December 2018
Institute	University of Naples "Federico II", Italy
Principal Instructor	Prof. Aniello Murano

Course	Algorithms and data structures - Lab.
Date (from - to)	March 2017 - October 2018
Institute	University of Naples "Federico II", Italy
Principal Instructor	Prof. Aniello Murano

Course	Mathematics
Date (from - to)	Novermber 2016 - February 2017
Institute	University of Naples "Federico II", Italy
Principal Instructor	Prof. Livia D'Apuzzo

Course	Algorithms and data structures - Lab.
Date (from - to)	March 2016 - February 2017
Institute	University of Naples "Federico II", Italy
Principal Instructor	Prof. Aniello Murano

Event Organization

Chair	Workshop on Highlights of Reasoning about Actions, Planning and Reactive Synthesis (ActSynt), ECAI 2024, Santiago de Compostela, Spain
Chair	On the Effectiveness of Temporal Logics on Finite Traces in AI, AAAI Spring Symposium Series 2023, San Francisco, USA
Organizing Committee member	Italian Conference on Theoretical Computer Science (ICTCS), 2017, Italian Conference on Computational Logic (CILC), 2017, TAILOR Workshop 2024

Community Services

Activities Program Committee Member: ECAI 2020, AAAI 2021, IJCAI Survery Track 2021, AAMAS 2021, AAMAS 2022, IJCAI Survery Track 2021, IJCAI Survery Track 2022, IJCAI 2022 Main Track, KR 2023, ECAI 2023, IJCAI 2024, KR 2024

Subreviewer: MFCS 2017, ICTCS 2017, AAMAS 2018, IJCAI 2018, TACAS 2024, FoSSaCS 2024, PODS 2024

Journal Reviewer: Fundamenta Informaticae, JAIR, Information and Computation, ACM Computing Survery

Scientific Communications

Conference talks

Title LTLf Synthesis Under Environment Specifications (Invited Talk)
Date October, 2023
Event Brown University, Providence, USA

Title LTLf synthesis under environment specifications for reachability and safety properties
Date September 15, 2023
Event EUMAS 2023, Napoli, Italy

Title Explicit and Symbolic Approaches for Parity Games
Date November 29, 2022
Event SPIRIT 2022, Udine, Italy

Title Compositional Safety LTL Synthesis
Date October 17, 2022
Event VSTTE 2022, Trento, Italy

Title LTLf Synthesis Under Environment Specifications
Date September 7, 2022
Event ICTCS 2022, Rome, Italy

Title LTLf Synthesis Under Environment Specifications (Invited Talk)
Date August 31, 2022
Event VardiFest 2022, Haifa, Israel

Title Two-Stage Technique for LTLf Synthesis Under LTL Assumptions
Date September 15, 2020
Event Highlights 2021, Online

Title Two-Stage Technique for LTLf Synthesis Under LTL Assumptions
Date September 18, 2020
Event KR 2020, Online

Title Solving Parity Games: Explicit vs Symbolic
Date July 8, 2018
Event 6th International Workshop on Strategic Reasoning (SR 2018), Oxford, UK

Title Solving Parity Games Using An Automata-Based Algorithm
Date July 22, 2016

Event	21st International Conference on Implementation and Application of Automata (CIAA 2016), Seoul, South Korea
Title	Solving parity games in scala
Date	October 10, 2014
Event	Formal Aspects of Component Software (FACS 2014), Bertinoro,Italy

Publications

[1] Antonio Di Stasio, Paolo Domenico Lambiase, Vadim Malvone, and Aniello Murano. Dynamic Escape Game (Demonstration). In *AAMAS 2018*, pages 1806–1808, 2018.

[2] Antonio Di Stasio, Aniello Murano, and Moshe Y. Vardi. Solving Parity Games: Explicit vs Symbolic. In *CIAA 2018*, pages 159–172, 2018.

[3] Giuseppe De Giacomo, Aniello Murano, Sasha Rubin, and Antonio Di Stasio. Imperfect-Information Games and Generalized Planning. In *IJCAI 2016*, pages 1037–1043, 2016.

[4] Antonio Di Stasio, Aniello Murano, Giuseppe Perelli, and Moshe Y. Vardi. Solving Parity Games Using an Automata-Based Algorithm. In *CIAA 2016*, pages 64–76, 2016.

[5] Antonio Di Stasio, Aniello Murano, Vincenzo Prignano, and Loredana Sorrentino. Solving Parity Games in Scala. In *FACS 2014*, pages 145–161, 2014.

[6] Giuseppe De Giacomo, Antonio Di Stasio, Francesco Fuggitti, and Antonio Di Stasio. Pure-past linear temporal and dynamic logic on finite traces. In *IJCAI 2020*, pages 4959–4965.

[7] Giuseppe De Giacomo, Antonio Di Stasio, Moshe Y. Vardi, and Shufang Zhu. Two-stage technique for ltlf synthesis under LTL assumptions. In *KR 2020*, pages 304–314, 2020.

[8] Giuseppe De Giacomo, Antonio Di Stasio, Giuseppe Perelli, and Shufang Zhu. Synthesis with mandatory stop actions. In *KR 2021*, pages 237–246, 2021.

[9] Giuseppe De Giacomo, Antonio Di Stasio, Lucas M. Tabajara, Moshe Y. Vardi, and Shufang Zhu. Finite-trace and generalized-reactivity specifications in temporal synthesis. In *IJCAI 2021*, pages 1852–1858, 2021.

[10] Antonio Di Stasio. LTLf synthesis under environment specifications. In *ICTCS 2022*, pages 40–46, 2022.

[11] Giuseppe De Giacomo, Suguman Bansal Antonio Di Stasio, Yong Li, Moshe Y. Vardi, and Shufang Zhu. Compositional Safety LTL Synthesis. In *VSTTE 2022*, pages 1–19, 2022.

[12] Antonio Di Stasio. Explicit and symbolic approaches for parity games (short paper). In *SPIRIT 2022*, 2022.

[13] Davide Catta., Antonio Di Stasio., Jean Leneutre., Vadim Malvone., and Aniello Murano. A game theoretic approach to attack graphs. In *ICAART 2023*, pages 347–354, 2023.

[14] Giuseppe De Giacomo, Antonio Di Stasio, Lucas M. Tabajara, Moshe Y. Vardi, and Shufang Zhu. Finite-trace and generalized-reactivity specifications in temporal synthesis. *Formal Methods in System Design (2023)*, 2023.

[15] Benjamin Aminof, Giuseppe De Giacomo, Antonio Di Stasio, Hugo Francon, Sasha Rubin, and Shufang Zhu. Ltlf synthesis under environment specifications for reachability and safety properties. In *EUMAS 2023*, 2023.

[16] Ben Greenman, Siddhartha Prasad, Antonio Di Stasio, Shufang Zhu, Giuseppe De Giacomo, Shriram Krishnamurthi, Marco Montali, Tim Nelson, and Milda Zizyte. Misconceptions in finite-trace and infinite-trace linear temporal logic. In *FM 2024*, 2024.

Languages

Mother tongue	Italian
Foreign language	English

References

Reference	Prof. Aniello Murano
Role	Professor in Computer Science
Institute	University of Naples "Federico II", Italy
Email	murano@na.infn.it

Reference	Prof. Giuseppe De Giacomo
Role	Professor of Computer Science
Institute	Department of Computer Science, University of Oxford, UK
Email	giuseppe.degiacomo@cs.ox.ac.uk

Reference	Prof. Moshe Y. Vardi
Role	University Professor
Institute	Rice University, Houston, TX, USA
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