

# Dr Francesco BELARDINELLI

DATE AND PLACE OF BIRTH: 8 July 1978, Senigallia (Italy)  
NATIONALITY: Italian  
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## CURRENT POSITION

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09/21- | **Department of Computing, Imperial College London, UK**  
Senior Lecturer in Computer Science

## PREVIOUS POSITIONS

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10/18-08/21 | **Department of Computing, Imperial College London, UK**  
Lecturer in Computer Science

09/12-09/18 | **Laboratoire IBISC** – Informatique, Biologie Intégrative et Systèmes Complexes  
Université d'Evry, France  
*Maître de Conférences HDR* in COMPUTER SCIENCE

12/15-08/16 | **Department of Computing, Imperial College London, UK**  
*Research Associate*  
Prof. Lomuscio's EPSRC Leadership Fellowship "Trusted Autonomous Systems"

07/11-08/12 | **Department of Computing, Imperial College London, UK**  
*Research Associate*  
EU STREP Project ACSI – Artifact-Centric Service Interoperation

07/09-07/11 | **Department of Computing, Imperial College London, UK**  
*IEF Marie Curie Fellow*  
FoMMAS project: First-order Modal Logics for the Specification and Verification of Multi-Agent Systems

07/07-07/09 | **Scuola Normale Superiore, Pisa, Italy**  
*Post-Doc Researcher*  
Project *Logica Modale e Conoscenza* on epistemic and modal logics, their theoretical foundations, and applications in Artificial Intelligence

## EDUCATION AND QUALIFICATIONS

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- 07/02/18 | **Qualification as *Professeur des Universités* (Full Professor)**  
*Conseil National des Universités*, France  
Section 27 (COMPUTER SCIENCE)  
  
The *Qualification as Professeur des Universités* is required in France to apply to professorships in the relevant areas.
- 10/02/17 | **Université d'Evry**, France  
**Habilitation à Diriger des Recherches** (HDR) in COMPUTER SCIENCE  
*Très Honorable avec avis de reproduction en état*  
Dissertation on "Multi-agent Modal Logics for Knowledge Representation"  
  
The *Habilitation à Diriger des Recherches* is required in France to supervise PhD students, as well as to apply to professorships.
- 17/02/12 | **Qualification as *Maître de Conférences* (Lecturer)**  
*Conseil National des Universités*, France  
Section 27 (COMPUTER SCIENCE)  
Section 17 (PHILOSOPHY)  
Section 72 (EPISTEMOLOGY)  
  
The *Qualification as Maître de Conférences* is required in France to apply to lecturships in the relevant areas.
- 04/07/06 | **Scuola Normale Superiore**, Italy  
*Diploma di Perfezionamento* (PhD) in LOGIC  
*70/70 cum laude*  
Dissertation on "Quantified Modal Logic and the Ontology of Physical Objects"
- 17/12/02 | **Scuola Normale Superiore**, Italy  
*Diploma di Licenza* in PHILOSOPHY  
*70/70 cum laude*  
Dissertation on "Modal Logic applied to the Theory of Deductive Systems"
- 08/07/02 | **University of Pisa**, Italy  
*Laurea Magistralis* (MA) in PHILOSOPHY  
*110/110 cum laude*  
Dissertation on "Semantical Aspects of Substructural Logics"

## RESEARCH FELLOWSHIPS & GRANTS (2009- )

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- 2023-25 | **EPSRC NIA grant *An Abstraction-based Technique for Safe Reinforcement Learning***  
Research project over 2 year supported by EPSRC.
- 2018-21 | **ANR PRC project AGAPE – *an Auction language for General Auction PlayErs***  
Collaborative project with IRIT Toulouse, LAMSADE Paris, LIG Grenoble, LIPADE Paris  
Research project over 3 years supported by the French National Agency for Research.
- 2020-21 | **EPSRC Travel Grant – *Strategy Logics for the Verification of Security Protocols***  
Collaborative project with Université Paris Est – Créteil.
- 2020-21 | **EPSRC Workshop Organisation Grant**  
Small grant for the organisation of the *Third International Workshop on Formal Methods in Artificial Intelligence (FMAI2021)*.
- 2019-20 | **Imperial College London – European Partner Fund**  
Reasoning about Strategic Behaviours in Multi-agent Systems  
Collaboration project with Prof. C. DIMA (Université Paris Est – Créteil)
- 2017-20 | **ANR Jeunes Chercheuses/Jeunes Chercheurs Fellowship**  
SVeDaS Project: Specification and Verification of Data-aware Systems  
Research project over 3 years supported by the French National Agency for Research
- 2019-20 | **Collaborative Projet Biatlon – *Bisimulations pour la logique temporelle alternante ATL avec applications en vote électRONique***  
Research grant by *Réseau Francilien de Sciences Informatiques (RFSI)* for a collaborative project with R. DEMANGEON (Université Pierre et Marie Curie), C. DIMA and D. VARACCA (Université Paris Est - Créteil).
- 2018-19 | **Collaborative Projet MALEVéPS – *Modèles multi-Agents et Logiques Epistémiques pour la Vérification des Propriétés de Sécurité***  
Research grant by *Réseau Francilien de Sciences Informatiques (RFSI)* for a collaborative project with C. DIMA (Université Paris Est – Créteil).
- 2017-18 | **Collaborative Project ALESSO – *ATL avec Ressources***  
Research grant by *Université Paris Saclay* to foster collaboration between *Laboratoire IBISC, UEVE and LSV, ENS Cachan*.
- 2016-17 | **Délegation au CNRS**  
Institut de Recherche en Informatique de Toulouse (IRIT)  
ISSMA Project: Interaction Stratégique dans les Systèmes Multi-Agents  
Visit fellowship at IRIT supported by the *Centre National de la Recherche Scientifique*
- 2015-18 | **PEDR – *Prime d'Encadrement Doctoral et de Recherche***  
French Ministry of Education and *Conseil National des Universités*  
Grant for past achievements in research and teaching
- 2015-16 | **CRCT – *Congés de Recherche et Conversion Thématique***, Université d'Evry  
Sabbatical leave including reduced teaching duties (96h instead of 192h).
- 2009-11 | **IEF Marie Curie Fellowship**, Framework Programme 7, European Commission  
FoMMAS Project: First-order Modal Logics for the Specification and Verification of Multi-Agent Systems



## SUPERVISION OF RESEARCH STUDENTS (2015- )

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2022-	<b>Imperial College London</b> Supervision of Mr A. Goodall's PhD on "A Robust Framework for World Model Learning in Reinforcement Learning".  Supervision of Mr T. Buckworth's PhD on "Neuro-symbolic Methods for AI".
2021-	<b>Imperial College London</b> Supervision of Mr M. McDermott's PhD on "Model Checking Agents that Learn".
2020-	<b>Imperial College London</b> Co-supervision of Mr F. R. Ward's PhD on "Symbolic Methods for Safe Reinforcement Learning" together with Prof. F. Toni.
2019-	<b>Imperial College London</b> Supervision of Mr B. Gonzalez-Leon's PhD on "Model Checking Agents that Learn". Supervision of Mr A. Hussain's PhD on "A Dynamical Systems Study of Multi-Agent Reinforcement Learning".
2017-20	<b>Université d'Evry</b> Supervision of Mr V. Malvone's post-doc on a position related to the SVeDaS research project.
2015-	<b>Université d'Evry</b> Supervision of Mr A. Slimani's PhD on "Automated Diagnosis of Faulty Behaviours in Temporal Epistemic Logic".

## EXAMINATION OF PHD THESES

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2022	<b>Normandie Université, France</b> Examiner of S. Gamblin's PhD thesis on "Représentation symbolique pour la logique épistémique dynamique probabiliste", supervised by M. Bouzid and A. Niveau (Normandie Université).
2021	<b>Imperial College London, UK</b> Internal examiner of E. Pirovano's PhD thesis on "Parameterised Model Checking of Probabilistic Multi-Agent Systems", supervised by A. Lomuscio (Imperial College London, UK).
2018	<b>Freie Universität Bozen – Bolzano, Italy</b> External examiner of A. Rivkin's PhD thesis on "Modeling, Enactment and Verification of Data-Aware Process", supervised by M. Montali (Freie Universität Bozen – Bolzano).
2017	<b>LORIA, Université de Lorraine, France</b> External examiner of Z. Bakhtiari's PhD thesis on "the Dynamics of Incomplete and Inconsistent Information", jointly supervised by H. van Ditmarsch (LORIA – CNRS) and H. Hansen (Delft University of Technology).  <b>ENS Cachan, France</b> Panel member of P. Gardy's PhD thesis on "Semantics of Strategy Logic", jointly supervised by P. Bouyer (ENS Cachan) and N. Markey (IRISA – CNRS).

## ADMINISTRATIVE DUTIES

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2022-23	<b>Department of Computing, Imperial College London</b> <ul style="list-style-type: none"><li>• Member of the working group on the new joint Maths and Computing degree at Imperial College London.</li><li>• Member of the board of directors of the CDT in Safe and Trusted AI.</li><li>• Mentor for 3rd year PhD students.</li><li>• Organisation of the seminar series on “Formal Methods for AI”.</li></ul>
2020-22	<b>Department of Computing, Imperial College London</b> <ul style="list-style-type: none"><li>• Member of the board of directors of the CDT in Safe and Trusted AI.</li><li>• Mentor for 2nd year PhD students.</li><li>• Organisation of the seminar series on “Formal Methods for AI”.</li></ul>
2018-20	<b>Department of Computing, Imperial College London</b> <ul style="list-style-type: none"><li>• Undergraduate admissions.</li><li>• Organisation of the seminar series on “Formal Methods for AI”.</li></ul>
2017-18	<b>Laboratoire IBISC, Université d’Evry</b> <ul style="list-style-type: none"><li>• Member of the International Commission at UEVE. The IC directs the UEVE’s international strategy. It is also in charge of selecting the students leaving on international mobility.</li><li>• Head of the 3rd year Undergraduate Programme in Computer Science.</li><li>• In charge of the organisation of the Laboratory seminars.</li></ul>
2014-17	<b>Laboratoire IBISC, Université d’Evry</b> <ul style="list-style-type: none"><li>• Head of the 3rd year Undergraduate Programme in Computer Science.</li><li>• Member of the Laboratory Committee.</li><li>• In charge of the organisation of the Laboratory seminars.</li></ul>
2013-14	<b>Laboratoire IBISC, Université d’Evry</b> <ul style="list-style-type: none"><li>• Head of International Relations.</li><li>• In charge of the organisation of the Laboratory seminars.</li></ul>
07/11-08/12	<b>Imperial College London</b> <i>EU STREP Projet ACSI</i> Project management, including: task allocation, updating the project programme, editing deliverables, organising meetings with the international partners of the project and the reviewers from the EU.
07/09-07/11	<b>Imperial College London</b> <i>IEF Marie Curie Fellowship, FOMMAS research project</i> Project management, including: negotiation with the European Commission, budget management in collaboration with the financial services at Imperial College London, annual editing of progress reports.
07/07-07/09	<b>Scuola Normale Superiore</b> <i>Project Logica Modale e Conoscenza</i> Project management, including: task allocation, updating the project programme, reporting of achieved results.
02-05/2007	<b>Imperial College London</b> <i>EU STREP Project CONTRACT</i> Project management, including: task allocation, editing deliverables.

## EDITORIAL AND PC ACTIVITIES

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### Journal Reviewing

- ACM Transactions on Database Systems (TODS)
- ACM Transactions on Computational Logic (TOCL)
- Artificial Intelligence
- Annals of Pure and Applied Logic (APAL)
- Computing: Archives for Scientific Computing
- Fundamenta Informaticae (FI)
- Information & Computation (I&C)
- Journal of Applied Logic (JAL)
- Journal of Artificial Intelligence Research (JAIR)
- Journal of Autonomous Agents and Multi-agent Systems (JAAMAS)
- Journal of Logic and Computation (JLC)
- Journal of Logic, Language and Information (JOLLI)
- Journal of Symbolic Logic (JSL)
- Logic Journal of the IGPL
- Mathematical Structures in Computer Science (MSCS)
- Studia Logica
- Synthese
- Theoretical Computer Science (TCS)

### Senior Programme Committees

- International Joint Conference on Artificial Intelligence (IJCAI): since 2016
- International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS): since 2017
- AAAI Conference on Artificial Intelligence (AAAI): since 2019

### Programme Committees

- Advances in Modal Logic (AiML)
- Brazilian Symposium on Artificial Intelligence (SBIA)
- Conference on Theoretical Aspects of Rationality and Knowledge (TARK)
- European Conference on Artificial Intelligence (ECAI)
- European Conference on Multi-agent Systems (EUMAS)
- IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS2018)
- International Conference on Agreement Technologies (AT)
- International Conference on Artificial Intelligence (AAAI)
- International Conference on Concurrency Theory (CONCUR)
- International Conference on Deontic Logic in Computer Science (DEON)

- International Conference on Foundations of Software Science and Computation Structures (FoS-SaCS)
- International Conference on Logic Programming (ICLP)
- International Conference on Principles and Practice of Multi-Agent Systems (PRIMA)
- International Conference on Principles of Knowledge Representation and Reasoning (KR)
- International Conference on Web Intelligence and Intelligent Agent Technology (IAT)
- International Workshop on Computational Logic in Multi-Agent Systems (CLIMA)
- International Workshop on Data- & Artifact-centric BPM (BPM-WS)
- International Workshop on Description Logics (DL)
- International Workshop on Strategic Reasoning (SR)
- Journées de Intelligence Artificielle Fondamentale
- Logic and the Foundations of Game and Decision Theory (LOFT)
- Logic in Security (LIS)
- Software Engineering and Formal Methods (SEFM)
- Workshop on Concurrency, Specification & Programming (CS&P)
- Workshop on Data and Artifact-centric Systems (DAB)
- Workshop on Logical Aspects of Multi-Agent Systems (LAMAS)

## Event Organisation

- [2nd Summer School of the UKRI CDT in Safe and Trusted AI](#), July 17-19 2023.
- [Safe and Trustworthy AI workshop](#), satellite workshop of the 39th International Conference on Logic Programming (ICLP2023), July 9/10 2023.
- 1st Summer School of the UKRI CDT in Safe and Trusted AI, July 12-14 2021.
- Workshop chair for the 20th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS2021).
- Programme chair for the 3rd International Workshop on Formal Methods in Artificial Intelligence: [www.doc.ic.ac.uk/~fbelard/Workshop/index.html](http://www.doc.ic.ac.uk/~fbelard/Workshop/index.html)
- 15th European Conference on Multi-agent Systems (EUMAS2017) and 5th International Conference on Agreement Technologies (AT2017), Evry, France, 14-15/12/2017, [eumas2017.ibisc.univ-evry.fr/](http://eumas2017.ibisc.univ-evry.fr/)

## Evaluation of Research Projects

- Royal Societys International Exchanges Panel, UK
- Agence National de la Recherche (ANR), France
- Istituto Nazionale di Alta Matematica (INdAM), Italy
- Imperial College Fellowship



## INVITED TALKS (2011- )

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- 19/04/23 | **Department of Computer Science, University of Surrey**  
Do Androids Dream of Electric Fences? Safety-Aware Reinforcement Learning with Latent Shielding
- 07/09/19 | **8th International Workshop on Strategic Reasoning**, satellite workshop of ECAI2020  
Multi-valued Logics and Abstractions for the Verification of Strategic Properties in MAS with Imperfect Information
- 29/05/19 | **Department of Computer Science, University of Surrey**  
Tractable Verification of Multi-agent Systems
- 09/05/17 | **Computational Epistemic Logic in Lorraine (CELLO) Workshop**, LORIA Nancy  
A Logic for Global and Local Announcements
- 13/07/17 | **Workshop on Logical Representation of Actions, Individual and Collective Attitudes**, IRIT Toulouse  
A Logic for Global and Local Announcements
- 23/02/17 | **First Workshop on Formal Methods in AI (FMAI)**, Università degli Studi di Napoli  
(Bi)simulations for Multi-agent Systems
- 19/09/16 | **Institut de Recherche en Informatique Fondamentale**, Université Paris Diderot  
Abstraction-based Verification of Infinite-state Data-aware Systems
- 29/06/15 | **Journées de l'Intelligence Artificielle Fondamentale**, Rennes  
A Logic of Knowledge and Strategies with Imperfect Information
- 17/06/15 | **AMANDE 4th Project Meeting**, Université Paris Dauphine  
Formal Analysis of Dialogues on Infinite Argumentation Frameworks
- 13/03/14 | **Department of Computing, Imperial College London**  
Verifying Auctions as Artifact Systems: Decidability via Finite Abstraction
- 21/02/14 | **Institut de Recherche en Informatique de Toulouse**  
Verifying Auctions as Artifact Systems: Decidability via Finite Abstraction
- 17/10/13 | **Institut de Recherche en Informatique et Systèmes Aléatoires**, Rennes  
Verifying Auctions as Artifact Systems: Decidability via Finite Abstraction
- 20/09/13 | **Highlights of Logic, Games and Automata**, Paris  
Model Checking Temporal-epistemic Logic using Alternating Tree Automata
- 17/06/13 | **Laboratoire d'Algorithmique, Complexité et Logique, UPEC**, Créteil  
Verification of Artifact-Centric Multi-Agent Systems via Finite Abstraction
- 13/06/13 | **Journées de l'Intelligence Artificielle Fondamentale**, Aix-en-Provence  
An Abstraction Technique for the Verification of Artifact-Centric Systems
- 25/02/13 | **Laboratoire LIP6, Université Paris 6**  
Verification of Agent-based Artifact Systems: Abstraction Techniques and Decidability Results
- 14/02/12 | **Department of Computing, University of Liverpool**  
An Abstraction Technique for the Verification of Artifact-Centric Multi-Agent Systems

## INVITED SYMPOSIA

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- 09/05/17 | **Computational Epistemic Logic in Lorraine (CELLO) Workshop**, LORIA Nancy  
Organised by H. VAN DITMARSCH (CNRS - LORIA)
- 12-13/07/17 | **Workshop on Logical Representation of Actions, Individual and Collective Attitudes**, IRIT Toulouse  
Organised by E. LORINI (CNRS - IRIT)
- 22-24/02/17 | **FMAI – 1st Workshop on Formal Methods in AI**, Naples  
Organised by D. DELLA MONICA, B. MAUBERT, A. MURANO, S. PINCHINAT, S. RUBIN
- 23-25/09/15 | **LAMAS SING (Logical Aspects of Multi-agent Systems, Seminar on Interaction, Gdansk)**  
Organised by W. JAMROGA (Polish Academy of Sciences)
- 17-21/08/15 | **Synthesis of Epistemic Protocols, Lorentz Center, Leiden**  
Organised by T. BOLANDER (DTU), H. VAN DITMARSCH (LORIA), J. VAN EIJCK (CWI-ILLC), R. RAMANUJAM (IMSc, Chennai)

## INVITED ACADEMIC VISITS

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- 08-09/02/18 | **Department of Computing, University of Liverpool**
- 01-05/06/15 | **Institut de Recherche en Informatique de Toulouse**  
Thematic Trimester in Game Theory
- 08-12/06/15 | **Department of Computing, University of Liverpool**

## LANGUAGES

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- ITALIAN: Mother tongue  
ENGLISH: Fluent  
FRENCH: Fluent  
GERMAN: Basic Proficiency

# Publications

## REFEREED JOURNAL PAPERS

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1. F. Belardinelli, A. Ferrando, V. Malvone; *An abstraction-refinement framework for verifying strategic properties in multi-agent systems with imperfect information*. Artificial Intelligence. 316: 103847, 2023.
2. F. Belardinelli, A. Lomuscio, V. Malvone, E. Yu; *Approximating Perfect Recall when Model Checking Strategic Abilities: Theory and Applications*. Journal of Artificial Intelligence Research, 73:897-932, 2022.
3. F. Belardinelli, S. Demri; *Strategic Reasoning with a Bounded Number of Resources: The Quest for Tractability*. Artificial Intelligence. 300: 103557, 2021.
4. F. Belardinelli, R. Condurache, C. Dima, W. Jamroga, M. Knapik; *Bisimulations for Verifying Strategic Abilities with an Application to ThreeBallot*. Information & Computation, 104552, 2021.
5. F. Belardinelli, A. Lomuscio, A. Murano, S. Rubin; *Verification of Multi-Agent Systems with Public Actions against Strategy Logic*. Artificial Intelligence, 285: 103302, 2020.
6. F. Belardinelli, W. van der Hoek, and L. B. Kuijser; *Second-order Propositional Modal Logic: Expressiveness and Completeness Results*. Artificial Intelligence, 263: 3–45, 2018
7. F. Belardinelli, A. Lomuscio, and F. Patrizi; *Verification of Agent-based Artifact Systems*. Journal of Artificial Intelligence Research. 51, pp. 333-77, 2014.
8. F. Belardinelli, A. Lomuscio; *Interactions between Knowledge and Time in a First-Order Logic for Multi-Agent Systems: Completeness Results*. Journal of Artificial Intelligence Research. 45, pp. 1-45, 2012.
9. F. Belardinelli, A. Lomuscio; *First-Order Linear-time Epistemic Logic with Group Knowledge: An Axiomatisation of the Monodic Fragment*. Fundamenta Informaticae. 106 (2-4), pp. 175-190, 2011.
10. F. Belardinelli, A.V. Jones, A. Lomuscio; *Model Checking Temporal-epistemic Logic using Alternating Tree Automata*. Fundamenta Informaticae. 112(1), pp. 19-37, 2011.
11. F. Belardinelli, A. Lomuscio; *Quantified Epistemic Logic for reasoning about Knowledge in Multi-Agent Systems*. Artificial Intelligence. Vol 173(9-10), pp. 982-1013. Elsevier, 2009.
12. F. Belardinelli, P. Jipsen, H. Ono; *Algebraic Aspects of Cut Elimination*. Studia Logica, 77, 2, pp. 209-240, 2004.

## REFEREED CONFERENCE PAPERS

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1. F. Belardinelli, W. Jamroga, M. Mittelmann and A. Murano; *Strategic Abilities of Forgetful Agents in Stochastic Environments*, KR 2023.
2. A. Hussain, F. Belardinelli, D. Paccagnan; *The Impact of Exploration on Convergence and Performance of Multi-Agent Q-Learning Dynamics*, ICLML 2023.
3. A. Hussain, F. Belardinelli, G. Piliouras; *Beyond Strict Competition: Approximate Convergence of Multi Agent Q-Learning Dynamics*, IJCAI 2023.
4. F. Belardinelli, A. Ferrando, W. Jamroga, V. Malvone, A. Murano; *Scalable Verification of Strategy Logic by Three-Valued Abstraction*, IJCAI 2023.
5. A. Goodall, F. Belardinelli; *Approximate Shielding of Atari Agents for Safe Exploration*, ALA@AAMAS 2023.
6. M. MacDermott, T. Everitt, F. Belardinelli; *Decision Theory Using Mechanised Causal Graphs*, GAIW@AAMAS2023.
7. A. Hussain, F. Belardinelli, G. Piliouras; *Asymptotic Convergence and Performance of Multi-Agent Q-learning Dynamics*, AAMAS 2023.

8. F. Ward, F. Toni, F. Belardinelli; *Defining deception in structural causal games* (short paper), AAMAS 2023
9. S. F. Rajaona, I. Boureau, V. Malvone, F. Belardinelli; *Program Semantics and Verification Technique for AI-Centred Programs*, 473–491, FM 2023.
10. F. Ward, F. Toni, F. Belardinelli; *On Agent Incentives to Manipulate Human Feedback in Multi-Agent Reward Learning Scenarios*, AAMAS 2022.
11. A. Hussain, F. Belardinelli; *Equilibria and Convergence of Fictitious Play on Network Aggregative Games*, ALA@AAMAS 2022.
12. B. León, M. Shanahan, F. Belardinelli; *Systematic Generalisation of Temporal Tasks through Deep Reinforcement Learning*, ALA@AAMAS 2022.
13. B. León, M. Shanahan, F. Belardinelli; *In a Nutshell, the Human Asked for This: Latent Goals for Following Temporal Specifications*, ICLR 2022.
14. P. He, B. León, F. Belardinelli; *Do Androids Dream of Electric Fences? Safety-Aware Reinforcement Learning with Latent Shielding*. SafeAI@AAAI 2022.
15. F. Belardinelli, B. León, V. Malvone; *Enabling Markovian Representations under Imperfect Information*. ICAART (2) 2022: 450-457.
16. F. Belardinelli, W. Jamroga, V. Malvone, M. Mittelman, A. Murano, L. Perrussel; *Reasoning about Human-Friendly Strategies in Repeated Keyword Auctions*. IJCAI/ECAI 2022.
17. F. Ward, F. Toni, F. Belardinelli; *A Causal Perspective on AI Deception in Games*. ICLP Workshops 2022
18. F. Ward, F. Toni, F. Belardinelli; *A causal perspective on AI deception in games*. AISafety@IJCAI 2022
19. F. Belardinelli, S. Knight, A. Lomuscio, B. Maubert, A. Murano, S. Rubin; *Reasoning About Agents That May Know Other Agents' Strategies*. IJCAI 2021: 1787-1793.
20. S. Zhu, F. Belardinelli, B. Gonzalez León; *Evolutionary reinforcement learning for sparse rewards*. GECCO Companion 2021: 1508-1512.
21. P. El Mqirmi, F. Belardinelli, B. Gonzalez León; *An Abstraction-based Method to Check Multi-Agent Deep Reinforcement-Learning Behaviors*. AAMAS 2021: 474-482.
22. S. Lauren, F. Belardinelli, F. Toni; *Aggregating Bipolar Opinions*. AAMAS 2021: 746-754.
23. F. Belardinelli, V. Malvone; *A Three-valued Approach to Strategic Abilities under Imperfect Information*. KR 2020.
24. F. Belardinelli, C. Dima, V. Malvone, F. Tiplea; *A Hennessy-Milner Theorem for ATL with Imperfect Information*. LICS 2020: 181-194.
25. R. Jha, F. Belardinelli, F. Toni; *Formal Verification of Debates in Argumentation Theory*. SAC 2020: 940-947.
26. F. Belardinelli, S. Demri; *Reasoning with a Bounded Number of Resources in  $ATL^+$* . ECAI 2020.
27. F. Belardinelli, V. Malvone; *Verifying Strategic Abilities in Multi-agent Systems via First-order Entailment*. ECAI 2020.
28. F. Belardinelli, B. Gonzalez Leon; *Extended Markov Games to Learn Multiple Tasks in Multi-Agent Reinforcement Learning*. ECAI 2020.
29. F. Belardinelli, A. Lomuscio, E. Yu; *Model Checking Temporal Epistemic Logic under Bounded Recall*. AAAI 2020.
30. F. Belardinelli, V. Malvone; *Decidable Verification of Agent-Based Data-Aware Systems*. PRIMA 2019: 52-68.

31. F. Belardinelli, A. Lomuscio, A. Murano, S. Rubin; *Imperfect Information in Alternating-Time Temporal Logic on Finite Traces*. PRIMA 2019: 469-477.
32. F. Belardinelli, W. Jamroga, D. Kurpiewski, V. Malvone, A. Murano; *Strategy Logic with Simple Goals: Tractable Reasoning about Strategies*. IJCAI 2019: 88-94.
33. F. Belardinelli, U. Grandi; *Social Choice Methods for Database Aggregation*. TARK 2019: 50-67.
34. F. Belardinelli, S. Demri; *Resource-bounded ATL: the Quest for Tractable Fragments*. AAMAS 2019: 206-214.
35. F. Belardinelli, U. Grandi; *A Social Choice Theoretic Perspective on Database Aggregation (extended abstract)*. AAMAS 2019: 1817-1819.
36. F. Belardinelli, I. Boureau, C. Dima, V. Malvone; *Verifying Strategic Abilities in Multi-agent Systems with Private Data-Sharing (extended abstract)*. AAMAS 2019: 1820-1822.
37. F. Belardinelli, A. Lomuscio, V. Malvone; *An Abstraction-based Method for Verifying Strategic Properties in Multi-agent Systems with Imperfect Information*. AAI2019: 6030-6037.
38. F. Belardinelli, A. Lomuscio, V. Malvone; *Approximating Perfect Recall when Model Checking Strategic Abilities*. Proc. of the 16th International Conference on Principles of Knowledge Representation and Reasoning (KR2018), Tempe.
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