CV Gianluca Baldassarre

ANAGRAPHICS

First name: Gianluca
Last name: Baldassarre
Born date: 21 February 1969
Born place: Rome
Gender: male

POSITION

Director of Research ("Dirigente di Ricerca"), Istituto di Scienze e Tecnologie della Cognizione, Consiglio Nazionale delle Ricerche, Via Giandomenico Romagnosi 18a, 00196 Roma, Italy

Coordinator of Research Group:
"LENAI - Laboratory of Embodied Natural and Artificial Intelligence":
https://www.istc.cnr.it/it/group/lenai

BIBLIOMETRIC INDICATORS

Number of peer-reviewed publications: >120 (source: Web of science)

Number of citations: 7733 (source: Google Scholar), 2321(source: Web of science)

H-index: 43 (source: Google Scholar), 28 (source: Web of Science)

Google Scholar publications: https://scholar.google.it/citations?user=8w3vnUcAAAAJ&hl=en

FACULTY POSITIONS

01-01-2021 – To present: Director of Research ("Dirigente di Ricerca"), Institute of Cognitive Science and Technologies, National Research Council of Italy, Rome.

18/11/2019 – 31/12/2020: Senior Researcher ("Primo Ricercatore"), Institute of Cognitive Science and Technologies, National Research Council of Italy, Rome.

16/02/2009 – 17/11/2019: Researcher, Institute of Cognitive Science and Technologies, National Research Council of Italy, Rome.

POSTGRADUATE TRAINING

02/03/2004 – 15/02/2009: Research Fellow, Institute of Cognitive Sciences and Technologies, National Research Council of Italy, Rome.

01/11/2001 – 01/03/2004: Postdoc, Institute of Cognitive Science and Technologies, National Research Council of Italy, Rome.

EDUCATION

05/10/1998 – 04/10/2001: PhD, Department of Computer Science, University of Essex.

01/11/1996 – 30/06/1997: Specialization in "Cognitive Psychology and Neural Networks". Department of Psychology, University of Rome "Sapienza".

01/11/1988 – 30/04/1997: BA and MA, Faculty of Economics, University of Rome "Sapienza". Marks: 110/110 cum laude.

01/07/1988 – 01/07/1983: Liceo Scientifico "Cavour", Rome. Marsk: 55/60.

RESEARCH INTEREST

- Computational models of the functions and brain mechanisms underlying goal-directed behavior and reinforcement learning
- System-level computational mechanisms of the brain systems pivoting on amygdala, basal-ganglia and frontal cortex
- Bioinspired humanoid robot controllers for open-ended learning based on intrinsic motivations, reinforcement learning, and neural networks
- Start-ups creation and management, economic and social phenomena.

TECHNIQUES

- Firing rate neural networks, deep neural networks, spiking neural networks
- Supervised, unsupervised, and reinforcement learning algorithms
- Simulated and real autonomous robots

NATIONAL AND INTERNATIONAL GRANTS

- 30/09/2004 – 30/12/2007, ***Co-Team Leader***, Specifically Targeted Research European Project, "MindRACES – from Reactive to Anticipatory Cognitive Embodied Systems", Grant Agreement n. 511931
  EU funding for CNR-ISTC (portion managed by the PI): 120,000.00 €
  Website: http://www.mindraces.org/

- 01/01/2006-31/12/2009, ***Team Leader***, European Integrated Project, "ICEA-Integrating Cognition Emotion and Autonomy", Grant Agreement n. 027819.
  EU funding for CNR-ISTC-LENAI: 630,000.00 €
  Website: https://cordis.europa.eu/project/rcn/81165/factsheet/en
- 01/01/2009-29/04/2013, ***Coordinator*** *(7 partners)*, European Commission Integrated Project, "IM-CLeVeR - Intrinsically Motivated Cumulative Learning Robots", Grant Agreement n. 231722.
  Total EU project funding: 5,899,884.00 €
  EU funding for CNR-ISTC-LENAI: 1,681,479.00 €
  Website: https://cordis.europa.eu/project/rcn/89252/factsheet/en www.im-clever.eu
- 01/11/2016-01/04/2021, ***Coordinator*** *(4 partners)*, European FET-OPEN Project, "GOAL-Robots - Goal-based Open-ended Autonomous Learning Robots", Grant agreement n. 713010.
  Total EU project funding: 3,481,875.00 €
  EU funding for CNR-ISTC-LENAI: 1,278,708.00 €
  Website: https://cordis.europa.eu/project/rcn/203543/factsheet/en http://www.goal-robots.eu/
- 01/05/2018-01/05/2020, ***Coordinator*** *(1 partner)*, European commission Marie Curie project, "MetaBot", Grant Agreement n. 795919
  EU funding for CNR-ISTC-LENAI: 168,277.00 €
  Website: https://istc.cnr.it/it/content/metabot-robotic-embodiment-meta-learning-neural-model-human-decision-making
- 01/06/2018-31/05/2019: *Team Leader,* ESA Project, "IMPACT - Intrinsically Motivated Planning Architecture for Curiosity-driven roboTs", ESA Project ID IMPACT-2019.
  EU funding for CNR-ISTC-LENAI (portion managed by the PI): €20,000.00 €
  Website: https://www.istc.cnr.it/it/content/impact-intrinsically-motivated-planning-architecture-curiosity-driven-robots
- 01/09/2019-28/02/2022, ***Team Leader***, European Commission Erasmus+, "ARIS - Artificial Intelligence skills for ICT professionals", Grant Agreement 2019-1-BE01-KA202-050425.
  EU funding for CNR-ISTC-LENAI: 82,300.00 €
  Website: http://www.aris-project.eu/
- 01/11/2016-01/04/2021, ***Coordinator of cascade funding project*** *(3 partners)* European "Human Brain Project - SGA3 CEoI" cascade funding, "GROW - General-purpose Robot for Object retrieval in Warehouses", Grant agreement n. 945539..
  Total EU project funding: 150,000,000.00 €
  EU funding for CNR-ISTC-LENAI: 344,078.65 €
  Website: https://cordis.europa.eu/project/id/945539
- 01/09/2021-28/02/2023: ***Coordinator*** *(3 partners)*, European EIC H2020 MGA Lump sum pilot project, "GROW Launchpad - General-purpose Robot for Object-retrieval in Warehouses", Grant agreement n. 101034828.
  Total EU project funding: 100,000.00
  Website: https://cordis.europa.eu/project/id/101034828
  EU funding for CNR-ISTC-LENAI: 22,320.00 €
- 01/09/2021-28/02/2023: ***Coordinator*** *(4 partners)*, European EIC H2020 MGA Lump sum pilot project, "Flight AI - Flight plan Artificial Intelligence assistant", Grant agreement n. 101034937.

Total EU project funding: 100,000.00 €
Website: https://cordis.europa.eu/project/id/101034937
EU funding for CNR-ISTC-LENAI: 38,462.50 €

- 01/09/2020-28/02/2022, ***Coordinator*** *(1 partner)*, European Innovation Council Pathfinder Pilot Project, "PlusMe - Transitional Wearable Companions for the therapy with children with Autism Spectrum Disorders" Grant Agreement n. 945887.
  EU funding for CNR-ISTC-LENAI: 99,375.00 €
  Website: https://cordis.europa.eu/project/id/945887
- 01/01/2021-31/10/2023, ***Coordinator*** *(5 partners)*, European Innovation Council, FET-proactive Project, "IM-TWIN – from Intrinsic Motivations to Transitional Wearable Companions for the therapy with children with autism spectrum disorders", Grant Agreement n. 952095.
  Total EU project funding: 1,999,965.00 €
  EU funding for CNR-ISTC-LENAI: 879,541.67 €
  Website: https://cordis.europa.eu/project/id/945887
- 01/10/2022-30/09/2026: ***Co-Team Leader***, Horizon Europe, Digital Emerging Technologies, "PILLAR Robots - Purposeful Intrinsically motivated Lifelong Learning Autonomous Robots", Grant Agreement n. 101070381.
  Total EU project funding: 4,990,046.25 €
  EU funding for CNR-ISTC-LENAI: 924,890.00 €
  Website:https://cordis.europa.eu/project/id/101070381
- 11-2022/31-11-25: ***Co-Team Leader, WP5 Responsible***, National Recovery and Resilience Plan (NSRP), Mission 4, Component 2, Investment 3.1, "Fund for the implementation of an integrated system of research and innovation infrastructures, "EBRAINS-Italy - European Brain ReseArch InfrastructureS-Italy", CUP B51E22000150006.
  Total EU project funding: 10,448,715.00 €
  EU funding for CNR-ISTC: €2,115,000.00 €
  Website:https://cordis.europa.eu/project/id/101070381

AWARDS AND FELLOWSHIPS

- 25/08/11, Second Best Conference Paper, Prizes Committee, International Conference on Development and Learning (ICDL-2011)
- 05/10/1998 – 04/10/2001: 3 years PhD fellowship, Department of Computer Science, University of Essex
- 1997: "Angelo Costa" Prize for Best National MA Research Thesis in Economics, Rivista di Politica Economica

TEACHING RESPONSIBILITIES

- 11/2018 – 04/2024 (6 academic years), "Advanced School of AI" (www.as-ai.org), Post-graduate master held by the "Istituto di Scienze e Tecnologie della Cognizione - CNR" with "Associazione culturale science2mind" first and "AI2Life" later, Teacher of Courses: (1) Calculus for AI (12 hours); (2) Python for beginners (10 hours); (3) Impact and anchors of AI (8 hours); (4) System and computational embodied neuroscience (16 hours).

- 11/2018 – 07/2019 (1 academic year), Università di Roma "Sapienza", Facoltà di Scienze Matematiche Fisiche e Naturali, Dipartimento di Biologia e Biotecnologie “Charles Darwin”, Laurea Magistrale in Neurobilogia, Roma, Lecturer (non-permanent position), "Neuroscienze Computazionali - Modulo II" (3 crediti formativi) (“Computational Neuroscience – Module II”)
- 11/2010 – 07/2014 (4 academic years), Facoltà di Psicologia, Università di Roma "La Sapienza", Roma, Lecturer (non-permanent position), “Embodied Computational Neuroscience”
- 11/2001 – 07/2003 (2 academic years), Facoltà di Psicologia, Seconda Università di Napoli, Caserta, Lecturer (non-permanent position), “Computer Science for Psychologists”
- 11/1999 – 10/2001, Department of Computer Science, University of Essex, Colchester, UK, Teaching Assistant in university and master courses: CC 181 Introduction to Artificial Intelligence (Dr. Paul Scott); CC 262 Robot programming (Dr. Husheng Hu); CC 362 Mobile robotics (Dr. Husheng Hu); CC 462 Behaviour-based robotics (Dr. Dong Bin)

ACADEMIC RESPONSIBILITIES

- 2023-2024: Member: “Commission for searching new location of ISTC-CNR”.
- 2018-2023: President: "Advanced School of AI" (www.as-ai.org), Post-graduate master held by the “Istituto di Scienze e Tecnologie della Cognizione – CNR”, first with “Associazione culturale science2mind”, later with the ISTC-CNR spin-off company “AI2Life Srl start-up innovativa”.

OTHER ROLES

- 2018-2022: Founder and President of “Associazione Culturale science2mind” (https://science2mind.org/).
- Since 2020: Cofounder and Partner of CNR-ISTC spin-off company “AI2Life Srl start-up innovativa” (https://ai2life.com/).

BIBLIOGRAPHY

Baldassarre, G. (1996), Simulations of oligopolistic markets with artificial agents: Decision procedures as emergent properties of adaptive learning, *in* Eliano Pessa and Pietronilla Penna and Anna Montesanto, ed., 'Proceedings of the Third European Congress on Systems Science', Edizioni Kappa, Roma, pp. 175-179.

Baldassarre, G. (1997), 'Classifier systems e reti neurali', Technical report, Istituto di Psicologia del CNR, Roma.

Baldassarre, G. (1997), 'Neural networks and genetic algorithms for the simulation models of bounded rationality theory - An application to oligopolistic markets', *Rivista di Politica Economica* **87**(12), 107-146.

Baldassarre, G. (1997), 'Reti neurali ed algoritmi genetici per i modelli simulativi di teoria della razionalità limitata - Applicazioni ai mercati oligopolistici', Master's thesis, Universita' di Roma "La Sapienza".

Baldassarre, G. (1997), 'Reti neurali ed algoritmi genetici per la simulazione dei modelli di teoria della razionalità limitata – Un'applicazione ai mercati oligopolistici', *Rivista di Politica Economica* **87**(12), 115-157.

Baldassarre, G. (1997), 'Verso uno studio integrato della mente e del cervello', Technical report, Istituto di Psicologia del CNR, Roma.

Baldassarre, G. (1997), 'Apprendimento per rinforzo e coordinazione sensomotoria', Master's thesis, Universita' di Roma "La Sapienza".

Baldassarre, G. and Parisi, D. (1998), 'Visual attention: early and late selection', Technical report, Istituto di Psicologia del CNR, Roma.

Baldassarre, G. and Parisi, D. (1999), Trial-and-error learning, noise and selection in cultural evolution – A study through artificial life simulations, *in* Kerstin Dautenhahn and Chrystopher Nehaniv, ed., 'Proceedings of the AISB'99 Symposium on Imitation in Animals and Artifacts', The Society for the Study of Artificial Intelligence and Simulation of Behaviour, Brighton, pp. 32-37.

Baldassarre, G. (2000), Needs and motivations as mechanisms of learning and control of behaviour: Interference problems with multiple tasks, *in* Robert Trappl, ed., 'Cybernetics and Systems 2000 - Proceedings of the Fifteenth European Meeting on Cybernetics and Systems Research', Austrian Society for Cybernetic Studies, Vienna, pp. 677-682.

Baldassarre, G. and Parisi, D. (2000), Classical and instrumental conditioning: From laboratory phenomena to integrated mechanisms for adaptation, *in* Jean-Arcady Meyer and Alain Berthoz and Dario Floreano and Herbert L. Roitblat and Stewart W. Wilson, ed., 'From Animals to Animats 6: Proceedings of the Sixth International Conference on the Simulation of Adaptive Behaviour (SAB2000)', The MIT Press, Cambridge, MA, pp. 131-139.

Baldassarre, G. (2001), Limiti di efficacia temporale del condizionamento operante: un modello connessionistico, *in* Biagino Pinna, ed., 'Congresso nazionale della sezione di Psicologia sperimentale', EDES Editrice Democratica Sarda, Sassari, pp. 59-61.

Baldassarre, G. (2001), A modular neural-network model of the basal ganglia's role in learning and selecting motor behaviours, *in* Erik M. Altmann and Axel Cleermans and Christian D. Schunn and Wayne D. Gray, ed., 'Proceedings of the Fourth International Conference on Cognitive Modeling (ICCM2001)', Lawrence Erlbaum, Mahwah, NJ, pp. 37-42.

Baldassarre, G. (2001), A planning modular neural-network robot for asynchronous multi-goal navigation tasks, *in* Kai O. Arras and Albert-Jan Baerveldt and Christian Balkenius and Wolfram Burgard and Roland Siegwart, ed., 'Proceedings of the 2001 Fourth European Workshop on Advanced Mobile Robots (EUROBOT2001)', Lund University, Lund, pp. 223-230.

Baldassarre, G. (2001), Coarse planning for landmark navigation in a neural-network reinforcement learning robot'Proceedings of the International Conference on Intelligent Robots and Systems (IROS2001)', IEEE, Piscataway, N.J., pp. 2398-2403.

Baldassarre, G. (2001), 'Cultural evolution of 'guiding criteria' and behaviour in a population of neural-network agents', *Journal of Memetics - Evolutionary Models of Information Transmission* **4**.

Baldassarre, G. (2002), A biologically plausible model of human planning based on neural networks and Dyna-PI models, *in* Martin Butz and Olivier Sigaud and P. Gérard, ed., 'Proceedings of the Workshop on Adaptive Behaviour in Anticipatory Learning Systems (ABiALS-2002, hold within SAB2002)', University of Wurzburg, Wurzburg, pp. 40-60.

Baldassarre, G. (2002), Orientamento spaziale nei gerbilli: una predizione sperimentale con un modello connessionistico, *in* Pier Luigi Garotti, ed., 'Congresso nazionale della sezione di psicologia sperimentale', Edizioni Nautilus, Bologna, pp. 67-70.

Baldassarre, G. (2002), 'A modular neural-network model of the basal ganglia's role in learning and selecting motor behaviours', *Journal of Cognitive Systems Research* **3**(2), 5-13.

Baldassarre, G., Nolfi, S. and Parisi, D. (2002), Evolving mobile robots able to display collective behaviour, *in* Charlotte K. Hemelrijk, ed., 'Proceedings of International Workshop on Self-Organisation and Evolution of Social Behaviour', Swiss Federal Institute of Technology, Zurich, pp. 11-22.

Baldassarre, G. (2003), Forward and bidirectional planning based on reinforcement learning and neural networks in a simulated robot, *in* Martin Butz and Olivier Sigaud and P. Gérard, ed., 'Anticipatory behaviour in adaptive learning systems', Springer Verlag, Berlin, pp. 179--200.

Baldassarre, G., Nolfi, S. and Parisi, D. (2003), Evolution of collective behaviour in a team of physically linked robots, *in* Gunther Raidl and Agnes Guillot and Jean-Arcady Meyer, ed., 'Applications of Evolutionary Computing - Proceedings of the Second European Workshop on Evolutionary Robotics (EvoROB2003, hold within EvoWorkshops-2003)', Springer Verlag, Berlin, pp. 581-592.

Baldassarre, G., Nolfi, S. and Parisi, D. (2003), 'Evolving mobile robots able to display collective behaviour', *Artificial Life* **9**(3), 255-267.

Baldassarre, G., Parisi, D. and Nolfi, S. (2004), Measuring coordination as entropy decrease in groups of linked simulated robots, *in* Ali Minai and Yaneer Bar-Yam, ed., 'Proceedings of the Fifth International Conference on Complex Systems (ICCS2004)', The New England Complex Systems Institute, Cambridge, MA, pp. e1-14.

Baldassarre, G., Parisi, D. and Nolfi, S. (2004), Coordination and behavior integration in cooperating simulated robots, *in* Stefan Schaal and Auke Ijspeert and Aude Billard and Sethu Vijayakumar and John Hallam and Jean-Arcady Meyer, ed., 'From Animals to Animats 8: Proceedings of the Eighth International Conference on the Simulation of Adaptive Behavior (SAB2004)', The MIT Press, Cambridge, MA, pp. 385-394.

Baldassarre, G., Parisi, D. and Nolfi, S. (2004), Coordinamento distribuito mediante auto-organizzazione'Atti del Secondo Convegno Nazionale dell'Associazione Italiana di Scienze Cognitive (AISC2)', Interaction Design Institute, Ivrea.

Baldassarre, G. (2005), Analisi quantitative dell'auto-organizzazione in gruppi di robot simulati, *in* Gianluca Baldassarre and Davide Marocco and Marco Mirolli, ed., 'Atti del Secondo Workshop Italiano di Vita Artificiale', CNR, Roma.

Baldassarre, G., Parisi, D. and Nolfi, S. (2006), 'Distributed coordination of simulated robots based on self-organization', *Artificial Life* **12**(3), 289-311.

Baldassarre, G. (2006), Cosa significa che gli animali computano, *in* Paolo Cherubini and Pierdaniele Giaretta and Massimo Marraffa and Alfredo Paternoster, ed., 'Cognizione e computazione - Problemi, metodi e prospettive delle spiegazioni computazionali nelle scienze cognitive', Cleup SC, Padova, pp. 23-30.

Baldassarre, G., Marocco, D. and Mirolli, M. (2006), 'Editoriale: La Via Italiana alla Vita Artificiale', *Sistemi Intelligenti* **18**(1), 3-6.

Baldassarre, G. (2007), Un modello verbale fisicalista (pre-Turing) dei sistemi computazionali naturali ed artificiali, *in* Giuseppe Nicosia and Mario Pavone, ed., 'Atti del Quarto Workshop Italiano di Vita Artificiale e Computazione Evolutiva (WIVACE 2007)', Università di Catania, Catania.

Baldassarre, G. (2008), Self-organization as phase transition in decentralized groups of robots: a study based on Boltzmann entropy, *in* Mikhail Prokopenko, ed., 'Advances in Applied Self-Organizing Systems', Springer-Verlag, London, pp. 127-146.

Baldassarre, G. and Mirolli, M. (2009), Il Progetto IM-CLeVeR: Intrinsically Motivated Cumulative Learning Versatile Robots, *in* Orazio Miglino and Michaela Ponticorvo and Angelo Rega and Franco Rubinacci, ed., 'Modelli, Sistemi e Applicazioni di Vita Artificiale e Computazione Evolutiva - WIVACE 2009', Fridericiana Editrice Universitaria, Napoli, pp. 43 - 46.

Baldassarre, G. and Nolfi, S. (2009), 'Strengths and synergies of evolved and designed controllers: a study within collective robotics', *Artificial Intelligence* **173**(7-8), 857-875.

Baldassarre, G., Mirolli, M., Mannella, F., Caligiore, D., Visalberghi, E., Natale, F., Truppa, V., Sabbatini, G., Guglielmelli, E., Keller, F., Campolo, D., Redgrave, P., Gurney, K., Stafford, T., Triesch, J., Weber, C., Rothkopf, C., Nehmzow, U., Condell, J., Siddique, M., Mark, L., Martin, H., Juergen, S., Gomez, F., Alexander, F., Togelius, J. and Barto, A. (2009), The IM-CLeVeR project: Intrinsically motivated cumulative learning versatile robots., *in* Lola Canamero and Pierre-Yves Oudeyer and Christian Balkenius, ed., 'Proceedings of the Ninth International Conference on Epigenetic Robotics (EpiRob2009)', Lund University, Lund, pp. 189-190.

Baldassarre, G. and Mirolli, M. (2010), 'Reply and Summary: On the Open Challenges for Understanding Cumulative Learning', The Newsletters of the Autonomous Mental Development Technical committee (IEEE CIS AMD Newsletters) Vol. 7, N. 2, pp. 8-9..

Baldassarre, G. and Mirolli, M. (2010), 'What are the key open challenges for understanding the autonomous cumulative learning of skills?', The Newsletters of the Autonomous Mental Development Technical committee (IEEE CIS AMD Newsletters). Vol. 7 N. 1, pp. 11..

Baldassarre, G. (2011), What are intrinsic motivations? A biological perspective, *in* Angelo Cangelosi and Jochen Triesch and Ian Fasel and Katharina Rohlfing and Francesco Nori and Pierre-Yves Oudeyer and Matthew Schlesinger and Yukie Nagai, ed., 'Proceedings of the International Conference on Development and Learning and Epigenetic Robotics (ICDL-EpiRob-2011)', IEEE, New York, NY, pp. E1--8.

Baldassarre, G., Mannella, F., Fiore, V., Sperati, V., Caligiore, D., Mirolli, M., Shaw Patricia, L. J., Lee, M., Taffoni, F., Formica, D., Keller, F. and Guglielmelli, E. (2011), An Experiment and a Bio-

Constrained Model of Children's Action-Outcome Learning Driven by Intrinsic Motivations, *in* Angelo Cangelosi and Jochen Triesch and Ian Fasel and Katharina Rohlfing and Francesco Nori and Pierre-Yves Oudeyer and Matthew Schlesinger and Yukie Nagai, ed., 'Proceedings of The First Joint IEEE International Conference on Development and Learning and on Epigenetic Robotics (ICDL-EPIROB 2011)', IEEE, New York, NY, pp. E1--2.

Baldassarre, G. (2013), What are intrinsic motivations? A biological and computational perspective, *in* Jacqueline Fagard and Roderic A. Grupen and Frank Guerin and Norbert Krüger, ed., 'Dagstuhl Report from Seminar 13072: Mechanisms of Ongoing Development in Cognitive Robotics', Schloss Dagstuhl, Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Dagstuhl, Germany, pp. 60--61.

Baldassarre, G. (2013), Self-Organization as Phase Transition in Decentralized Groups of Robots: A Study Based on Boltzmann Entropy, *in* Mikhail Prokopenko, ed., 'Advances in Applied Self-Organizing Systems', Springer Verlag, London, pp. 157--177.

Baldassarre, G., Caligiore, D. and Mannella, F. (2013), The hierarchical organisation of cortical and basal-ganglia systems: a computationally-informed review and integrated hypothesis, *in* Gianluca Baldassarre and Marco Mirolli, ed., 'Computational and Robotic Models of the Hierarchical Organisation of Behaviour', Springer-Verlag, Berlin, pp. 237-270.

Baldassarre, G., Mannella, F., Fiore, V. G., Redgrave, P., Gurney, K. and Mirolli, M. (2013), 'Intrinsically motivated action-outcome learning and goal-based action recall: A system-level bio-constrained computational model.', *Neural Networks* **41**, 168-187.

Baldassarre, G. and Mirolli, M. (2013), Computational and robotic models of the hierarchical organization of behavior: an overview, *in* Gianluca Baldassarre and Marco Mirolli, ed., 'Computational and Robotic Models of the Hierarchical Organisation of Behaviour', Springer-Verlag, Berlin, pp. 1-10.

Baldassarre, G. and Mirolli, M. (2013), Deciding which skill to learn when: Temporal-Difference Competence-Based Intrinsic Motivation (TD-CB-IM), *in* Gianluca Baldassarre and Marco Mirolli, ed., 'Intrinsically Motivated Learning in Natural and Artificial Systems', Springer-Verlag, Berlin, pp. 257--278.

Baldassarre, G. and Mirolli, M. (2013), Intrinsically Motivated Learning Systems: An Overview, *in* Gianluca Baldassarre and Marco Mirolli, ed., 'Intrinsically Motivated Learning in Natural and Artificial Systems', Springer-Verlag, Berlin, pp. 1--14.

Baldassarre, G., Mirolli, M., Visalberghi, E., Guglielmelli, E., Keller, F., Redgrave, P., Gurney, K., McGuinnity, M., Triesch, J., Lee, M., Schmidhuber, J. and Barto, A. (2013), 'A Digest of the Main Insights and Achievements of the Project IM-CLeVeR – Intrinsically Motivated Cumulative Learning Versatile Robots', Technical report, Consiglio Nazionale delle Ricerche.

Baldassarre, G., Nolfi, S. and Parisi, D. (2003), Conformismo ed indipendenza sociale per il controllo di robot simulati in compiti collettivi, *in* Guglielmo Bellelli, ed., 'Congresso nazionale della sezione di psicologia sperimentale', Grafica 080, Bari, pp. 92-94.

Baldassarre, G., Nolfi, S. and Parisi, D. (2003), Metodi evolutivi per il controllo di gruppi di robot simulati: emergenza di ruoli dinamici di leader e follower, *in* Guglielmo Bellelli, ed., 'Congresso nazionale della sezione di psicologia sperimentale', Grafica 080, Bari, pp. 95-97.

Baldassarre, G., Santucci, V., Mirolli, M., Visalberghi, E., Guglielmelli, E., Keller, F., Redgrave, P., Gurney, K., McGuinnity, M., Triesch, J., Lee, M., Schmidhuber, J. and Barto, A. (2013), 'The Project IM-CLeVeR – Intrinsically Motivated Cumulative Learning Versatile Robots: A Tool-box for Research on Intrinsic Motivations and Cumulative Learning', Technical report, Consiglio Nazionale delle Ricerche.

Baldassarre, G. (2014), 'Knowledge for Children: A Project for the Human Hyper Problems Group', Technical report, Istituto di Scienze e Tecnologie della Cognizione, Consiglio Nazionale delle Ricerche, Manuscript shared with the Human Hyper Problems Group, 4 November 2014.

Baldassarre, G. (2014), 'A quick overview of LOCEN-ISTC-CNR theoretical analyses and system-level computational models of brain: from motivations to actions', *Giornale Italiano di Neuroscienze, Psicologia e Riabilitazione* **1**(5), 59--64.

Baldassarre, G., Mannella, F., Santucci, V. G., Sperati, V., Caligiore, D., Cartoni, E., da Silva, B. C. and Mirolli, M. (2015), Open-Ended Learning of Skills in Robots: Insights from Looking at the Brain, *in* Peter Dayan and Susan Murphy and Yael Niv and Nick Roy and Satinder Singh and Rich Sutton, ed., 'The Second Multidisciplinary Conference on Reinforcement Learning and Decision Making (RLDM2015)', University of Alberta, Edmonton, Alberta, Canada, pp. e1--5.

Baldassarre, G. (2016), 'Bio-inspired computational models of the development of attention skills: intrinsic motivations, goals, and learning"Second Interdisciplinary Symposium on Information Seeking, Curiosity and Attention (Neurocuriosity 2016)', Technical report, Institute for Human Development, Max Planck Germany, Second symposium on Information-seeking, Curiosity and Attention (Neurocuriosity2016), British Medical Association House, Centre for Brain and Cognitive Development, London, UK, 06-08 October 2016, 1.

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