PERSONAL INFORMATION

MARCO CONTI

📍 IIT-CNR, Via G. Moruzzi 1, 56124, Pisa

📞 +39 050 315 3062 📠 +39 348 39668-7

✉ marco.conti@iit.cnr.it

🌐 https://www.iit.cnr.it/en/marco.conti/

Sex M | *Date of birth* 16/12/62| *Nationality* Italian

h-index: 56 total citations: 17692 (source: Scopus)

Enterprise	University	EPR
☐ Management Level	☐ Full professor	☒ Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
☐ Mid-Management Level	☐ Associate Professor	☐ Level III Researcher and Technologist
☐ Employee / worker level	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

01.09.2023 - present

Interim Director of Institute
IIT-CNR, Via G. Moruzzi 1, 56124 Pisa, Italy, https://www.iit.cnr.it/

01.09.2019 - 31.08.2023

Director of Institute
IIT-CNR, Via G. Moruzzi 1, 56124 Pisa, Italy, https://www.iit.cnr.it/

04.10.2016 - 31.08.2019

Member of the Scientific Council of CNR
CNR, Piazzale Aldo Moro, 7, Italy

01.02.2013 - 04.11.2016

Director of the department "Engineering, ICT and Technologies for Energy and Transport
CNR, Piazzale Aldo Moro, 7, Italy

01.01.2001 - present

Research Director
IIT-CNR, Via G. Moruzzi 1, 56124 Pisa, Italy
- Research topics: Decentralised AI, Big Data Analytics, Online Social Networks, 5G, IoT and Edge Computing, Mobile Networks
Research

01.03.1999 – 31.12.2000

Senior Researcher
IIT-CNR, Via G. Moruzzi 1, 56124 Pisa, Italy

- Research topics: Distributed computing systems Mobile Networks
Research

30.12.1988 – 28.02.1999

Researcher
IIT-CNR, Via G. Moruzzi 1, 56124 Pisa, Italy

- Research topics: Mobile and wireless networks, ad hoc networks, performance modeling
Research

01.12.1987 – 29.12.1988

Research Associate
CNUCE Institute, CNR, Pisa (IT)
- Research topics: Computer Networks, Performance modelling
Research

ADDITIONAL POSITIONS

2022 – present

Member of the Scientific Technical Committee
Agency for National Cybersecurity

2020 – present

Member of the Board of Directors and of the Strategic Committee
EURid AISBL

2019 – 01.07.2022

Member of the Board of Directors

START 4.0 Competence Center

2015 –2018	**Member of the Board of Directors and Vice-President** *Consortium RFX*
2013 – 2019	**Member of the Board of Directors** IMT Lucca Graduate School

EDUCATION AND TRAINING

20.02.1987	M.Sc. in Computer Science University of Pisa, Italy

- ▪ Specialization on performance modelling of hierarchical databases, 110/110 with honors

PROJECTS
(last five years)

With leadership roles

2022– present	**NRRP Enlarged Partnership "Future AI Research" (FAIR)** • **Role**: Chair of the scientific technical committee; **Keywords**: AI
2019 – 2023	**CNR Doctoral Project in Artificial Intelligence** • **Role**: Scientific coordinator of the project; **Keywords**: PhD, AI, PhD-AI.it
2019 – 2023	**CNR Doctoral Project in Artificial Intelligence** • **Role**: Scientific coordinator of the project; **Keywords**: PhD, AI, PhD-AI.it
2016 – 2021	**H2020 REPLICATE:** REnaissance of Places with Innovative Citizenship and TEchnolgy • **Role**: CNR PI; **Keywords**: Smart Cities, IoT, Smart mobility
2019 – present	**ARTES 4.0:** National Compentence Centre on Advanced Robotics and enabling digital Technologies & Systems • **Role**: Member of the scientific-technical committee; **Keywords**: Decentralised AI, IoT, Industry 4.0
2016 – 2019	**H2020 FoF AUTOWARE**: Wireless Autonomous, Reliable and Resilient ProductIon Operation ARchitecture for Cognitive Manufacturing (CNR PI) • **Role**: CNR Co-PI; **Keywords**: data management, IoT, Industry 4.0

Project reviewer

2019 - present	ERC Starting Grant PE 6

COMMUNITY SERVICE
(last five years)

Conference Chair	IEEE SmartComp 2021
Steering Committees	IEEE PerCom (2006 –); IEEE WoWMoM (2015 –; co-chair); IEEE/IFIP WiOpt (2010 –)
TPC member	(most relevant) IEEE INFOCOM (2011 – 2020; area chair)

EDITORIAL ACTIVITY

2018 - present	**Editor-in-Chief for Special issues**, Elsevier Pervasive and Mobile Computing
2017 - present	**Founding Editor-in-Chief**, Elsevier Online Social Networks and Media journal
2009 - 2018	**Editor-in-Chief**, Elsevier Computer Communications journal
2005 - 2018	**Founding Associate Editor-in-Chief**, Elsevier Pervasive and Mobile Computing

2005 - 2008	**Member of the Editorial Board:** IEEE Transaction on Mobile Computing (2005-2010), Ad Hoc Networks (2004-2012), ACM MC2R (2003-2004)
2006 - present	**Guest Editor**, 21 special issues/sections, international peer-reviewed journals

PHD SUPERVISION

2004 - present	(Co-)Supervisor, 14 PhD students
2003 - present	Supervisor, 13 Post-Doc researchers
2021 - present	Member of the board of the National PhD in Artificial Intelligence (PhD-AI.it)
2017 - 2021	Member of the board of the PhD in "Data Science" - Scuola Normale Superiore of Pisa
2012 - 2017	member of the board of the PhD in Computer Science - University of Pisa

INSTITUTIONAL RESPONSIBILITIES

2021 - present	**CNR representative**, Coordinating Council of the National AI Doctorate, PhD-AI.it
2021 - present	**CNR representative**, Regional Tuscan Competence Center on Big Data and Artificial Intelligence (CBDAI)
2020 - present	**Member of the Management Committee,** Master on Internet Ecosystem: Governance and Rights, University of Pisa
2019 - present	**CNR representative,** *Consorzio Nazionale Interuniversitario per l'Informatica* **(**CINI)
2018 - present	**CNR representative**, Regional Tuscan Competence Center on Cybersecurity (C3T)
2017 - present	**CNR representative**, National Committee for Cybersecurity Research

INVITED TALKS

2021	**Invited Panelist** at "La via italiana ed europea all'intelligenza artificiale", Osservatorio AI dell'ANSA Roma, 8 November, 2021
2021	**Invited Panelist** at "Cities of the future: what possible evolution towards the creation of smart communities", 30th ICCCN Conference, Athens, 19 July 2021.
2019	**Invited Talk** "The CNR contribution to Italian AI", European Parliament, Brussels, 19 November 2019
2019	**Invited Talk** "CNR contribution to the Italian AI Strategy", Bilateral meeting on Artificial Intelligence, at French Embassy in Italy, Roma 9 July, 2019.
2018	**Keynote Speaker, IEEE SmartComp 2018**, Taormina, Italy, 19 June 2018
2016	**Keynote Speaker, ACM SAC 2016**, Pisa, Italy, 7 April 2016
2016	**Invited Talk** "Cyber Security @ CNR", British Embassy, Roma, 18 May, 2016.
2014	**Invited Talk** "CNR: La Ricerca per l'Innovazione del Paese", 2014 Finmeccanica Innovation Award, Rome, Nov. 26, 2014.

FELLOWSHIPS AND AWARDS

2017	**Web of Science** "2017 Highly Cited Researchers" - *Computer Science* area
2016	**Best Paper Nomination** IEEE SmartComp 2016
2013	**Best Paper Award** IEEE WoWMoM 2013
2012	**Best Paper Award** IEEE ISCC 2012
2011	**Best Paper Award** IFIP Networking 2011

ADDITIONAL INFORMATION

2021	Member of the Working Group on the **National Strategy for Artificial Intelligence**
2020	Member of the Commission of Experts for the definition of the **National Programme for Research 2021-2027**.
2009 - 2015	**Chair of IFIP Working Group 6.3** "Performance of Communication Systems"

PUBLICATIONS

Publications
best and most relevant
in the last 10 years

1. Mustafa Toprak, Chiara Boldrini, Andrea Passarella, Marco Conti, "Harnessing the Power of Ego Network Layers for Link Prediction in Online Social Networks", *IEEE Transactions on Computational Social Systems*, accepted for publication, 2022

2. L. Valerio, A. Passarella, M. Conti, "Optimising cost vs accuracy of decentralised analytics in fog computing environments", *IEEE Transactions on Network Science and Engineering*, (ISSN: 2327-4697), 10.1109/TNSE.2021.3101986.

3. Claudio Cicconetti, Andrea Passarella, Marco Conti, "In-Network Computing with FaaS at the Edge*", IEEE Computer* (accepted for publication).

4. K Ollivier, C Boldrini, A Passarella, M Conti, "Structural Invariants in Individuals Language Use: The "Ego-Network" of Words, *International Conference on Social Informatics* (Socinfo 2020), pp. 267-282.

5. Mirco Nanni, Gennady Andrienko, Chiara Boldrini, Francesco Bonchi, Ciro Cattuto, Francesca Chiaromonte, Giovanni Comandé, Marco Conti, Mark Coté, Frank Dignum, Virginia Dignum, et. Alt. "Give more data, awareness and control to individual citizens, and they will help COVID-19 containment" , *Ethics and Information Technology* 23 (1), 1-6.

6. A Sîrbu, G Andrienko, N Andrienko, C Boldrini, M Conti, F Giannotti, et. Alt. "Human migration: the big data perspective", *International Journal of Data Science and Analytics*, Vol. 4 2020. https://link.springer.com/article/10.1007/s41060-020-00213-5.

7. Claudio Cicconetti, Andrea Passarella, Marco Conti, "A Decentralized Framework for Serverless Edge Computing in the Internet of Things", *IEEE Transactions on Network and Service Management*, Digital Object Identifier: 10.1109/TNSM.2020.3023305.

8. T Raptis, A Passarella, M Conti, "Distributed Data Access in Industrial Edge Networks", *IEEE JSAC* Vol. 38 (5), 915-927.

9. Pavlos Paraskevopoulos, Chiara Boldrini, Andrea Passarella, Marco Conti: The academic wanderer: structure of collaboration network and relation with research performance. *Appl. Netw. Sci*. 6(1): 31 (2021).

10. Matteo Mordacchini, Marco Conti, Andrea Passarella, and Raffaele Bruno. 2019. Human-centric Data Dissemination in the IoP: Large-scale Modeling and Evaluation. *ACM Trans. Auton. Adapt. Syst*. 14, 3, Article 10 (December 2019), 25 pages. https://doi.org/10.1145/3366372

11. Lorenzo Valerio, Andrea Passarella, Marco Conti, "Energy Efficient Distributed Analytics at the Edge of the Network for IoT Environments", Elsevier *Pervasive and Mobile Computing*, , Volume 51, Pages 27-42, December 2018, https://doi.org/10.1016/j.pmcj.2018.09.004

12. Lorenzo Valerio, Andrea Passarella, Marco Conti, "A communication efficient distributed learning framework for smart environments", Elsevier *Pervasive and Mobile Computing*, Volume 41, October 2017, Pages 46-68, https://doi.org/10.1016/j.pmcj.2017.07.014

13. Valerio Arnaboldi, Marco Conti, Andrea Passarella, Robin Dunbar, "Structure of Ego-Alter Relationships of Politicians in Twitter", Journal of *Computer-Mediated Communication*, Vol 22(5), pp. 231-247 (2017).

14. Marco Conti, Andrea Passarella, Sajal, K. Das, "The Internet of People (IoP): A New Wave in Pervasive Mobile Computing", *Pervasive and Mobile Computing*, Vol. 41 2017, pp. 1-27.

15. Valerio Arnaboldi, Marco Conti, Andrea Passarella, Robin I.M. Dunbar, "Online Social Networks and information diffusion: The role of ego networks", Elsevier *Online Social Networks and Media*, 1 (2017) pp. 44–55, http://doi.org/10.1016/j.osnem.2017.04.001

16. Matteo Mordacchini, Andrea Passarella, Marco Conti, "A social cognitive heuristic for adaptive data dissemination in mobile Opportunistic Networks", Elsevier *Pervasive and Mobile Computing*, Available online 17 June 2017.

17. M. Mordacchini, L. Valerio, M. Conti, A. Passarella, "Design and evaluation of a cognitive approach for disseminating semantic knowledge and content in opportunistic networks", *Computer Communications*, Volume 81, 1 May 2016, Pages 12–30, http://dx.doi.org/10.1016/j.comcom.2015.09.027.

18. Lorenzo Valerio, Andrea Passarella, Marco Conti, Elena Pagani, "Scalable data dissemination in opportunistic networks through cognitive methods", Elsevier *Pervasive and Mobile Computing*, Volume 16, Part A, January 2015, Pages 115–135, http://dx.doi.org/10.1016/j.pmcj.2014.05.005

19. V. Arnaboldi, A. Passarella, M. Conti, R. Dunbar, Online Social Networks: Human Cognitive Constraints in Facebook and Twitter Personal Graphs, Elsevier, October 2015.

20. Robin Dunbar, Valerio Arnaboldi, Marco Conti, Andrea Passarella, "The Structure of Online Social Networks Mirror Those in the Offline World", *Social Networks* (2015) 43: 39-47.

21. Umair Sadiq, M. Kumar, A. Passarella, M. Conti, "Service Composition in Opportunistic Networks: A Load and Mobility Aware Solution", *IEEE Transactions on Computers*, 64(8): 2308-2322 (2015).

22. M. Mordacchini, A. Passarella, M. Conti, S.M. Allen, M.J. Chorley, G.B. Colombo, V. Tanasescu and R.M. Whitaker, "Crowdsourcing through Cognitive Opportunistic Networks", *ACM Transactions on Autonomous and Adaptive Systems*, 10, 2, Article 13 (June 2015), 29 pages, http://dx.doi.org/10.1145/2733379

23. Andrea Passarella, Marco Conti, "Analysis of individual pair and aggregate inter-contact times in heterogeneous opportunistic networks," *IEEE Transactions on Mobile Computing*, 12(12) pp. 2483-2495, 2013

24. Marco Conti, Matteo Mordacchini, Andrea Passarella, "Design and Performance Evaluation of Data Dissemination Systems for Opportunistic Networks Based on Cognitive Heuristics", *ACM Transactions on Autonomous and Adaptive Systems*, Volume 8 Issue 3, September 2013, http://dx.doi.org/10.1145/2518017.2518018

25. M. Pitkänen, T. Kärkkäinen, J. Ott, M. Conti, et alt. "SCAMPI: Service platform for soCial Aware Mobile and Pervasive computing," *ACM Computer Communication Review* 42(4): 503-508 (2012).

26. M. Conti, S.K. Das, C. Bisdikian, M. Kumar, L. M. Ni, A. Passarella, G. Roussos, G.Tröster, G. Tsudik, F. Zambonelli, "Looking Ahead in Pervasive Computing: Challenges and Opportunities in the Era of Cyber-Physical Convergence", *Pervasive and Mobile* Computing Journal, Volume 8, Issue 1, 2012.