

# Curriculum Vitae et Studiorum

Alberto Montresor

1 Settembre 2019

## 1 Introduzione

### 1.1 Dati anagrafici

**Nome**

**Nato a**

**Stato civile**

**Recapito**      Università di Trento, Dip. di Ingegneria e Scienza dell'Informazione  
via Sommarive 9 , I-38123 Povo (TN)

### 1.2 Posizione attuale

**2005-**              Professore ordinario – settore INF-01 – Dip. di Ingegneria e Scienza dell'Informazione della Università di Trento.

### 1.3 Esperienze accademiche

**2005-2020**      Professore Associata per il settore disciplinare INF/01 presso il Dip. di Ingegneria e Scienza dell'Informazione dell'Università di Trento.

**2002-2005**      Ricercatore per il settore disciplinare INF/01 presso il Dip. di Scienze dell'Informazione dell'Università di Bologna.

**2002**              Titolare di un contratto di collaborazione presso l'Università di Bologna, finanziato dal progetto europeo ADAPT.

**2000-2002**      Titolare di un assegno di ricerca presso l'Università di Bologna, finanziato in parte dal Ministero dell'Università e della Ricerca Scientifica e in parte da Sun Microsystems.

**1998**              Visiting researcher presso il Dip. di Informatica dell'Università di Twente (Enschede, Olanda), su invito del prof. Sape Mullender.

## 1.4 Titoli

|                  |                                                                                                      |
|------------------|------------------------------------------------------------------------------------------------------|
| <b>2018</b>      | Abilitazione Scientifica Nazionale, settore concorsuale 09/H1, Prima fascia                          |
| <b>2014</b>      | Abilitazione Scientifica Nazionale, settore concorsuale 01/B1, Prima fascia                          |
| <b>1995-2000</b> | Dottorato in Informatica presso l'Università di Bologna.                                             |
| <b>1990-1995</b> | Laurea in Scienze dell'Informazione presso l'Università di Bologna, con la votazione 110/110 e lode. |
| <b>1985-1990</b> | Maturità Scientifica presso il Liceo Scientifico G. Fracastoro di Verona, con il punteggio 58/60.    |

## 2 Pubblicazioni

### Libri

- [1] A. Bertossi and A. Montresor. *Algoritmi e strutture di dati - 3<sup>a</sup> Ed.* Città Studi Edizioni, Torino, 2014.

### Atti di convegni, edizione

- [1] O. Babaoglu, M. Jelasity, A. Montresor, C. Fetzer, S. Leonardi, A. van Moorsel, and M. van Steen, editors. *Self-Star Properties in Complex Information Systems*, volume 3460 of *Lecture Notes in Computer Science, Hot Topics*. Springer-Verlag, May 2005.
- [2] F. Eliassen and A. Montresor, editors. *Distributed Applications and Interoperable Systems: 6th IFIP WG 6.1 Int. Conference, DAIS'06*, volume 4025 of *Lecture Notes in Computer Science*. Springer-Verlag, June 2006.
- [3] D. H. J. Epema, A. Montresor, M. Jelasity, and J. Jorba. Topic 7 - Peer-to-Peer Computing. In *Proc. of the 14th Int. Conference on Parallel Processing*, EuroPar'08, pages 599–600, Las Palmas de Gran Canaria (Spain), Aug. 2008. Springer.
- [4] P. Felber, O. Beaumont, A. Montresor, and A. Bagchi. Topic 7 - Peer-to-Peer Computing. In *Proc. of the 17th Int. Conference on Parallel Processing*, volume 6852 of *EuroPar'11*, pages 514–515, Bordeaux, France, Aug. 2011. Springer.
- [5] M. Hauswirth, A. Wierzbicki, K. Wherle, A. Montresor, and N. Shahmehri, editors. *Proc. of the 7th Int. Conference on Peer-to-Peer Computing (P2P'07)*. IEEE, Sept. 2007.
- [6] M. Little, A. Montresor, and G. Pavlik, editors. *Proc. of the 10th Int. Symposium on Distributed Objects, Middleware, and Applications (DOA'08)*, volume 5331 of *Lecture Notes in Computer Science*, Monterrey, Mexico, Nov. 2008. Springer.
- [7] A. Montresor, F. L. Fessant, D. H. J. Epema, and S. Voulgaris. Topic 7 - Peer-to-Peer Computing. In *Proc. of the 13th Int. Conference on Parallel Processing*, EuroPar'07, pages 477–478. Springer, Aug. 2007.
- [8] A. Montresor and P. Garcia Lopez, editors. *Proc. of the First Workshop on Edge Computing*. IEEE, June 2016.
- [9] A. Montresor, E. Pitoura, A. Datta, and S. Voulgaris. Topic 7: Peer to peer computing. In *Proc. of the 18th Int. Conference on Parallel Processing*, volume 7484 of *EuroPar'12*, page 363. Springer, Aug. 2012.
- [10] A. Montresor, F. Saffre, and N. Medvidovic, editors. *3rd IEEE Int. Conference on Self-Adaptive and Self-Organizing Systems (SASO'09)*, San Francisco, CA, September 2009. IEEE.
- [11] A. Montresor, A. Wierzbicki, and N. Shahmehri, editors. *Proc. of the 6th Int. Conference on Peer-to-Peer Computing (P2P'06)*. IEEE, Sept. 2006.

## Articoli su rivista con referee

- [1] O. Babaoglu, G. Canright, A. Deutsch, G. Di Caro, F. Ducatelle, L. Gambardella, N. Ganguly, M. Jelasity, R. Montemanni, and A. Montresor. Design patterns from biology for distributed computing. *ACM Transactions on Autonomous and Adaptive Systems*, 1(1):26–66, Sept. 2006.
- [2] O. Babaoglu, R. Davoli, and A. Montresor. Group communication in partitionable systems: Specification and algorithms. *IEEE Transactions on Software Engineering*, 27(4):308–336, Apr. 2001.
- [3] M. Biazzi and A. Montresor. P2POEM: Function optimization in p2p networks. *Peer-to-Peer Networking and Application*, 6(2):213–232, 2013.
- [4] N. Busi, A. Montresor, and G. Zavattaro. Data-driven coordination in peer-to-peer information systems. *Int. Journal of Cooperative Information Systems*, 13(1):63–89, Mar. 2004.
- [5] C. Consonni, D. Laniado, and A. Montresor. Cyclerank, or there and back again: Personalized relevance scores from cyclic paths on directed graphs. *Philosophical Transactions of the Royal Society of London. Series A, Mathematical and Physical Sciences*, 2020. To appear.
- [6] W. L. da Costa Cordeiro, F. R. Santos, M. P. Barcelos, L. P. Gaspary, H. Kavalionak, A. Guerrieri, and A. Montresor. Making puzzles green and useful for adaptive identity management in large-scale distributed systems. *Computer Networks*, 95:97 – 114, 2016.
- [7] P. Garcia Lopez, A. Montresor, D. Epema, A. Datta, T. Higashino, A. Iamnitchi, M. Barcellos, P. Felber, and E. Riviere. Edge-centric computing: Vision and challenges. *SIGCOMM Comput. Commun. Rev.*, 45(5):37–42, Sept. 2015.
- [8] G. Gheorghe, R. L. Cigno, and A. Montresor. Security and privacy issues in P2P streaming systems: A survey. *Peer-to-Peer Networking and Application*, 4(2):75–91, 2011.
- [9] A. Guerrieri, I. Carreras, F. D. Pellegrini, D. Miorandi, and A. Montresor. Distributed estimation of global parameters in delay-tolerant networks. *Computer Communications*, 33(13):1472–1482, Aug. 2010.
- [10] M. Jelasity, A. Montresor, and O. Babaoglu. Gossip-based aggregation in large dynamic networks. *ACM Trans. Comput. Syst.*, 23(1):219–252, Aug. 2005.
- [11] M. Jelasity, A. Montresor, and O. Babaoglu. T-Man: Gossip-based fast overlay topology construction. *Computer Networks*, 53(13):2321–2339, 2009.
- [12] G. P. Jesi, A. Montresor, and O. Babaoglu. Proximity-aware superpeer overlay topologies. *IEEE Transactions on Network and Service Management*, 4(2):74–83, Sept. 2007.
- [13] G. P. Jesi, A. Montresor, and M. van Steen. Secure peer sampling. *Computer Networks*, 54(13):2086–2098, June 2010.
- [14] H. Kavalionak, E. Carlini, L. Ricci, A. Montresor, and M. Coppola. Integrating peer-to-peer and cloud computing for massively multiuser online games. *Peer-to-Peer Networking and Application*, 8(2):301–319, 2015.
- [15] L. Maccari, L. Ghio, A. Guerrieri, A. Montresor, and R. L. Cigno. Exact distributed load centrality computation: Algorithms, convergence, and applications to distance vector routing. *IEEE Trans. Parallel Distrib. Syst.*, 31(7):1693–1706, 2020.
- [16] G. Mega, A. Montresor, and G. P. Picco. Social overlays meet the cloud: A hybrid architecture for profile dissemination in decentralized social networks. *IEEE Transactions on Network Science and Engineering*, 6(4):613–627, Oct 2019.
- [17] H. Meling, A. Montresor, B. Helvik, and O. Babaoglu. Jgroup/ARM: A distributed object group platform with autonomous replication management. *Software Prac. Exper.*, 38(9):885–923, July 2008.
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- [19] A. Montresor, F. de Pellegrini, and D. Miorandi. Distributed  $k$ -core decomposition. *IEEE Trans. Parallel Distrib. Syst.*, 24(2):288–300, 2013.
- [20] A. Montresor, G. Eiben, and M. van Steen. Extreme distributed systems: from large scale to complexity. *Computing*, 94(8–10):619–620, 2012.
- [21] Y. V. Sabeur Aridhi, Alberto Montresor. BLADYG: A graph processing framework for large dynamic graphs. *Big Data Research*, 9:9–17, 2017.
- [22] J. Sacha and A. Montresor. Identifying frequent items in distributed data sets. *Computing*, 95(4):289–307, 2013.
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- [2] P. Costa, V. Gramoli, M. Jelasity, G. P. Jesi, E. L. Merrer, A. Montresor, and L. Querzoni. Exploring the interdisciplinary connections of gossip-based systems. *SIGOPS Oper. Syst. Rev.*, 41(5):51–60, Oct. 2007.

## Capitoli di libri

- [1] O. Babaoglu, R. Davoli, and A. Montresor. Group communication in partitionable systems: Specification and algorithms. In S. Krakoviak and S. Shirivastava, editors, *Advances in Distributed Systems*, number 1752 in Lecture Notes in Computer Science, pages 48–78. Springer-Verlag, 1999.

## Articoli in atti di convegno

- [1] L. Abeni and A. Montresor. Scheduling in p2p streaming: From algorithms to protocols. In T. Spyropoulos and K. A. Hummel, editors, *Proc. of the 4th IFIP Int. Workshop on Self-Organizing Systems (IWSOS'09)*, volume 5918 of *Lecture Notes in Computer Science*, pages 201–206, Zurich, Switzerland, Dec. 2009. Springer.
- [2] M. Ajelli, R. L. Cigno, and A. Montresor. Modeling botnets and epidemic malware. In *Proc. of the Int. Communications Conference (ICC'10)*. IEEE, May 2010.
- [3] L. Angeli, F. Fiore, A. Montresor, and M. Marchese. Designing a hands-on learning space for the new generation. In *Proceedings of the FabLearn Europe 2019 Conference*. IATED, May 2019.
- [4] L. Angeli, M. Stoycheva, F. Fiore, A. Montresor, and M. Marchese. A conceptual exploration in the intersection of crafts, technology and academia for sustainable job and skills development in the 21th century. In *Proceedings of the 11th Int. Conference on Education and New Learning Technologies (EduLearn)*, pages 5:1–5:3. ACM, July 2019.
- [5] S. Aridhi, M. Brugnara, Y. Velegrakis, and A. Montresor. Distributed  $k$ -core decomposition and maintenance in large dynamic graphs. In *Proc. of the 10th ACM Int. Conference on Distributed and Event-Based Systems, DEBS'16*, Irvine, CA, June 2016. ACM.
- [6] S. Aridhi, A. Montresor, and Y. Velegrakis. BLADYG: A novel block-centric framework for the analysis of large dynamic graphs. In *Proc. of the ACM Workshop on High Performance Graph Processing, HPGP@HPDC 2016*, pages 39–42, Kyoto, Japan, May 2016. ACM.



- [7] O. Babaoglu, T. Binci, M. Jelasity, and A. Montresor. Firefly-inspired heartbeat synchronization in overlay networks. In *Proc. of the First IEEE Int. Conference on Self-Adaptive and Self-Organizing Systems (SASO'07)*, Boston, MA, USA, July 2007. IEEE.
- [8] O. Babaoglu, G. Canright, A. Deutsch, G. Di Caro, F. Ducatelle, L. Gambardella, N. Ganguly, M. Jelasity, R. Montemanni, and A. Montresor. Design patterns from biology for distributed computing. In *Proc. of the European Conference on Complex Systems*, Paris, France, Nov. 2005.
- [9] O. Babaoglu, R. Davoli, A. Montresor, and R. Segala. System support for partition-aware network applications. In *Proc. of the 18th Int. Conference on Distributed Computing Systems (ICDCS'98)*, pages 184–191, Amsterdam, The Netherlands, May 1998. IEEE.
- [10] O. Babaoglu, H. Meling, and A. Montresor. Anthill: A framework for the development of agent-based peer-to-peer systems. In *Proc. of the 22th Int. Conference on Distributed Computing Systems (ICDCS'02)*, Vienna, Austria, July 2002. IEEE.
- [11] B. Bánhelyi, M. Biazzi, A. Montresor, and M. Jelasity. Peer-to-peer optimization in large unreliable networks with branch-and-bound and particle swarms. In *Applications of Evolutionary Computing*, Lecture Notes in Computer Science, pages 87–92. Springer, jul 2009. An extended version of the paper can be found [here](#).
- [12] A. Bartoli, C. Calabrese, M. Prica, E. A. D. Muro, and A. Montresor. Adaptive message packing for group communication systems. In *Proc. of the Workshop on Reliable and Secure Middleware (WRSM'03)*, number 2889 in Lecture Notes in Computer Science, pages 912–925. Springer-Verlag, 2003.
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- [14] M. Biazzi and A. Montresor. Gossiping differential evolution: a decentralized heuristic for function optimization in p2p networks. In *Proc. of the 16th Int. Conference on Parallel and Distributed Systems (ICPADS'10)*. IEEE, Dec. 2010.
- [15] M. Biazzi, A. Montresor, and M. Brunato. Towards a decentralized architecture for optimization. In *Proc. of the 22nd IEEE Int. Parallel and Distributed Processing Symposium (IPDPS'08)*, Miami, FL, USA, Apr. 2008. IEEE.
- [16] N. Busi, C. Manfredini, A. Montresor, and G. Zavattaro. Towards a data-driven coordination infrastructure for peer-to-peer systems. In *Web Engineering and Peer-to-Peer*, number 2376 in Lecture Notes in Computer Science, pages 295–299. Springer-Verlag, 2002.
- [17] N. Busi, C. Manfredini, A. Montresor, and G. Zavattaro. PeerSpaces: Data-driven coordination in peer-to-peer networks. In *Proc. of the 18th Symposium on Applied Computing (SAC'03)*, pages 380–386, Melbourne, Florida, Mar. 2003. ACM.
- [18] C. Consonni, D. Laniado, and A. Montresor. Discovering topical contexts from links in Wikipedia. In *Proc. of the Wiki Workshop 2019*, May 2019.
- [19] C. Consonni, D. Laniado, and A. Montresor. WikiLinkGraphs: A complete, longitudinal and multi-language dataset of the Wikipedia link networks. In *Proc. of the 13th Int. AAAI Conference on Web and Social Media, ICWSM'19*, pages 598–607. AAAI Press, June 2019.
- [20] C. Consonni, P. Sottovia, A. Montresor, and Y. Velegrakis. Discovering order dependencies through order compatibility. In *Proc. of 22nd Int. Conference on Extending Database Technology, EDBT'19*, pages 409–420, 2019.
- [21] B. Elser and A. Montresor. An evaluation study of BigData frameworks for graph processing. In *Proc. of the 2013 IEEE Int. Conference on Big Data, BigData'13*, pages 60–67, Santa Clara, CA, USA, Oct. 2013. IEEE.
- [22] L. Forlizzi, M. Lodi, V. Lonati, C. Mirolo, M. Monga, A. Montresor, A. Morpurgo, and E. Nardelli. A core informatics curriculum for italian compulsory education. In *Proc. of 11th Int. Conference on Informatics in Schools: Situation, Evolution, and Perspectives (ISSEP'18)*, volume 11169 of *Lecture Notes in Computer Science*, pages 141–153. Springer, 2018.

- [23] A. Guerrieri and A. Montresor. DS-Means: Distributed data stream clustering. In *Proc. of the 18th Int. Conference on Parallel Processing*, EuroPar'12, pages 260–271. Springer, 2012.
- [24] A. Guerrieri and A. Montresor. DFEP: Distributed funding-based edge partitioning. In *Proc. of the 21th Int. Conference on Parallel Processing*, EuroPar'15. Springer, 2015.
- [25] A. Guerrieri, A. Montresor, I. Carreras, F. D. Pellegrini, and D. Miorandi. Distributed estimation of global parameters in delay-tolerant networks. In *Proc. of the 3rd IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications (AOC'09)*, Kos, Greece, June 2009. IEEE.
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- [27] A. Guerrieri, A. Montresor, and Y. Velegrakis. Top-k item identification on dynamic and distributed datasets. In *Proc. of the 20th Int. Conference on Parallel Processing*, EuroPar'14. Springer, 2014.
- [28] B. Helvik, H. Meling, and A. Montresor. An approach to experimentally obtain service dependability characteristics of the Jgroup/ARM system. In *Proc. of the 5th European Dependable Computing Conference (EDCC'05)*, Budapest, Hungary, Apr. 2005. Springer.
- [29] M. Jelasity and A. Montresor. Epidemic-style proactive aggregation in large overlay networks. In *Proc. of the 24th Int. Conference on Distributed Computing Systems (ICDCS'04)*, pages 102–109, Tokyo, Japan, Mar. 2004. IEEE Computer Society.
- [30] M. Jelasity, A. Montresor, and O. Babaoglu. A modular paradigm for building self-organizing peer-to-peer applications. In *Engineering Self-Organising Systems: Nature-Inspired Approaches to Software Engineering*, number 2977 in Lecture Notes in Artificial Intelligence, pages 265–282. Springer-Verlag, Apr. 2004.
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- [34] H. Kavalionak and A. Montresor. P2P and cloud: A marriage of convenience for replica management. In *Proc. of the 7th IFIP Int. Workshop on Self-Organizing Systems (IWSOS'12)*, number 7166 in Lecture Notes in Computer Science, pages 60–71, Delft, The Netherlands, Mar. 2012. Springer.
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- [37] Z. T. Kefato, N. Sheikh, L. Bahri, A. Soliman, A. Montresor, and S. Girdzijauskas. CAS2VEC: network-agnostic cascade prediction in online social networks. In *Proc. of the 5th Int. Conference on Social Networks Analysis, Management and Security (SNAMS 2018)*, pages 72–79. IEEE, Oct. 2018. Best paper award.
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- [42] P. G. López, R. G. Tinedo, and A. Montresor. Towards data-driven software-defined infrastructures. In *2nd Int. Conference on Cloud Forward: From Distributed to Complete Computing*, volume 97 of *Procedia Computer Science*, pages 144–147, Madrid, Spain, Oct. 2016. Elsevier.
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- [44] M. Luca, A. Montresor, C. Caprini, and D. Miorandi. An architecture-independent data model for managing information generated by human-chatbot interactions. In *Proceedings of the 8th Int. Conference on Model-Driven Engineering and Software Development*, MODELSWARD, pages 344–351. SCITEPRESS, 2020.
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- [65] A. Montresor, H. Meling, and O. Baboglu. Messor: Load-balancing through a swarm of autonomous agents. In *Proc. of the 1st Workshop on Agent and Peer-to-Peer Systems (AP2PC'02)*, number 2530 in Lecture Notes in Artificial Intelligence, pages 125–137, Bologna, Italy, July 2003. Springer-Verlag.
- [66] A. Montresor and R. Zandonati. Absolute slicing in peer-to-peer systems. In *Proc. of the 5th Int. Workshop on Hot Topics in Peer-to-Peer Systems (HotP2P'08)*, Miami, FL, USA, Apr. 2008. IEEE.
- [67] A. H. Payberah, H. Kavalionak, V. Kumaresan, A. Montresor, and S. Haridi. CLive: Cloud-assisted P2P live streaming. In *Proc. of the 12th IEEE P2P Conference on Peer-to-Peer Computing (P2P'12)*, pages 79–88, Tarragona, Spain, Sept. 2012. IEEE.
- [68] A. H. Payberah, H. Kavalionak, A. Montresor, J. Dowling, and S. Haridi. Lightweight gossip-based distribution estimation. In *Proc. of IEEE Int. Conference on Communications, ICC'13*, pages 3439–3443, Budapest, Hungary, June 2013. IEEE.
- [69] C. Sakouhi, S. Aridhi, A. Guerrieri, S. Sassi, and A. Montresor<sup>1</sup>. DynamicDFEP: A distributed edge partitioning approach for large dynamic graphs. In *Proceedings of the 20th Int. Database Engineering & Applications Symposium, IDEAS'16*, Montreal, Canada, July 2016. ACM.
- [70] N. Sheikh, Z. T. Kefato, and A. Montresor. Semi-supervised heterogeneous information network embedding for node classification using 1D-CNN. In *Proc. of the 5th Int. Conference on Social Networks Analysis, Management and Security (SNAMS 2018)*, pages 177–181. IEEE, Oct. 2018.
- [71] N. Sheikh, Z. T. Kefato, and A. Montresor. A simple approach to attributed graph embedding via enhanced autoencoder. In *Proceedings of the Eighth Int. Conference on Complex Networks and Their Applications (COMPLEX NETWORKS 2019)*, volume 881 of *Studies in Computational Intelligence*, pages 797–809. Springer, Dec. 2019.
- [72] G. Simoni, R. Roverso, and A. Montresor. RankSlicing: A decentralized protocol for supernode selection. In *Proc. of the 14th IEEE P2P Conference on Peer-to-Peer Computing, P2P'14*. IEEE, 2014.
- [73] A. Zanolto, N. Conci, and A. Montresor. Blockchain-grade privacy protection in surveillance systems. In *Proceedings of the 13th Int. Conference on Distributed Smart Cameras, ICDSC 2019*. ACM, Dec. 2019.

## Pubblicazioni in altre aree di ricerca

- [1] M. Braioni, A. Braioni, L. Girelli, M. Masconale, M. Francescon, and A. Montresor. Analisi territoriale e cartografia tematica nel monitoraggio a rischio ambientale. informazione geografica : innovazione e formazione. In *Atti IV Conferenza Nazionale ASITA*, pages 287–289, Genova, Italy, Oct. 2000.
- [2] M. Braioni and A. Montresor. Qualità delle rive nel monitoraggio e nel ripristino dei corsi d’acqua (abstract). In *Atti XIV Congresso Nazionale Associazione Italiana di Oceanografia e Limnologia*, Garda (VR), Italy, 2000.
- [3] M. Braioni, G. Salmoiraghi, A. Montresor, G. Penna, and P. DeFranceschi. The banks quality in the monitoring and restoring of the watercourses. *Atti Associazione Italiana Oceanologia Limnologia*, 14:77–88, 2001.
- [4] M.G. Braioni, A. Braioni, P. Franceschi, F. Mason, S. Ruffo, B. Sambugar, P. Modena, M. Tessari, and A. Montresor. Indices for assessing river bank quality: the case of the river adige (north-east italy). In *Proc. of the International Workshop on the Ecology and Management of Aquatic-Terrestrial Ecotones*, pages 287–289, Seattle, WA, USA, 1994.

## Software

Peersim è un simulatore di protocolli peer-to-peer, sviluppato in Java a partire dal 2003 in collaborazione con Mark Jelasity (Hungarian Academy of Science e University of Szeged). A Gennaio 2018, è stato scaricato più di 33.000 volte ed utilizzato in quasi 1000 articoli scientifici (Maggio 2020).

## Dati statistici

| Database       | H-index | # Citations | Top paper |
|----------------|---------|-------------|-----------|
| Google Scholar | 39      | 6990        | 897       |
| Scopus         | 22      | 3191        | 506       |

## Riconoscimenti

- 2018** Z. T. Kefato, N. Sheikh, L. Bahri, A. Soliman, A. Montresor, and S. Girdzijauskas. CAS2VEC: network-agnostic cascade prediction in online social networks. In *Proc. of the 5th International Conference on Social Networks Analysis, Management and Security (SNAMS 2018)*, pages 72–79. IEEE, October 2018.
- 2011** A. Montresor and L. Abeni. Cloudy weather for P2P, with a chance of gossip. In *Proc. of the 11th IEEE P2P Conference on Peer-to-Peer Computing (P2P’11)*, pages 250-259. IEEE, August 2011.
- 2006** G. P. Jesi, A. Montresor, and O. Babaoglu. Proximity-aware superpeer overlay topologies. In *Proc. of SelfMan’06, LNCS 3996*, pages 43-57. Springer-Verlag, Dublin, Ireland, June 2006.

## 3 Finanziamenti

### Coordinamento progetti

| Title                                                    | Year      | Agency & Type                  | Role              | Own Budget | Total Amount |
|----------------------------------------------------------|-----------|--------------------------------|-------------------|------------|--------------|
| Conto Terzi Grant                                        | 2019      | U-Hopper                       | Coordinator       | 45.000€    |              |
| Progetto CLIC                                            | 2018      | PAT                            | Member            | 12.500€    |              |
| Sensemaking Service – Entity Linking for Big Linked Data | 2017      | EIT ICTLabs Activity           | Local unit coord. | 55.000€    |              |
| Sensemaking Service – Entity Linking for Big Linked Data | 2016      | EIT ICTLabs Activity           | Local unit coord. | 50.000€    |              |
| Conto Terzi Grant                                        | 2015      | SpazioDati                     | Coordinator       | 20.000€    |              |
| Large Scale Graph Proc.for Big Linked Data Analytics     | 2014      | EIT ICTLabs Activity           | Local unit coord. | 60.000€    |              |
| Europa                                                   | 2013      | EIT ICTLabs Activity           | Local unit coord. | 29.000€    |              |
| Europa                                                   | 2012      | EIT ICTLabs Activity           | Local unit coord. | 32.000€    |              |
| Autonomic Security                                       | 2010-2102 | MIUR PRIN                      | Project coord.    | 48.370€    |              |
| ATLAS                                                    | 2007-2011 | Atlantis Double-Degree Project | Project coord.    | 146.000€   |              |
| “Gossip-based Strategies in Global Optimization”         | 2008      | ESA - Ariadna Project          | Local unit coord. | 29.000€    |              |
| <b>Total</b>                                             |           |                                |                   | 526.870€   |              |

## Partecipazione a progetti

|                  |                                                                                                                                                                                                                                                             |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2008-2010</b> | Napa-wine – Network-Aware P2P-TV Application over Wise Networks - Contract no. FP7-214412, <a href="http://www.napa-wine.eu">http://www.napa-wine.eu</a> .                                                                                                  |
| <b>2006-2008</b> | Cascadas – Component-ware for Autonomic Situation-aware Communications, and Dynamically Adaptable Services - Contract No. FP6-027807. <a href="http://www.cascadas-project.org/">http://www.cascadas-project.org/</a> .                                     |
| <b>2006-2008</b> | Bionets - BIOlogically inspired NETwork and Services - Contract No. FP6-027748. <a href="http://www.bionets.eu/">http://www.bionets.eu/</a> .                                                                                                               |
| <b>2003-2005</b> | BISON - Biology-Inspired techniques for Self-Organization in dynamic Networks - Contract No. IST-2001-38923. <a href="http://www.cs.unibo.it/bison/">http://www.cs.unibo.it/bison/</a> . Workpackage leader, coordination committee member.                 |
| <b>2002-2005</b> | ADAPT - Middleware Technologies for Adaptive and Composable Distributed Components - Contract No. IST-2001-37126. <a href="http://adapt.ls.fi.upm.es/adapt.htm">http://adapt.ls.fi.upm.es/adapt.htm</a> .                                                   |
| <b>1996-2004</b> | CABERNET - Network of Excellence in Distributed and Dependable Distributed Computing Systems - Contract No. IST-2000-25088. <a href="http://www.newcastle.research.ec.org/cabernet/index.html">http://www.newcastle.research.ec.org/cabernet/index.html</a> |
| <b>1996-1999</b> | BROADCAST-WG - Basic Research On Advanced Distributed Computing: from Algorithms to Systems - ESPRIT Basic Research Working Group 22455                                                                                                                     |

## 4 Didattica

### Incarichi didattici

|                  |                                                                                                    |
|------------------|----------------------------------------------------------------------------------------------------|
| <b>2016-2019</b> | “Scientific Programming”, C.d.L. Magistrale in Computat. and Quantitative Biology, Univ. of Trento |
| <b>2018-2019</b> | “Scientific Programming”, C.d.L. Magistrale in Data Science, Univ. of Trento                       |
| <b>2005-</b>     | “Algoritmi e Strutture Dati”, C.d.L. in Informatica, , Univ. of Trento                             |
| <b>2006-</b>     | “Distributed Systems”, C.d.L. Magistrale in Informatica, , Univ. of Trento.                        |
| <b>2008,2010</b> | “P2P Systems”, Doctorate School in ICT, Univ. of Trento (in collaboration with Renato Lo Cigno)    |
| <b>2002-2005</b> | “Sistemi Operativi MZ”, C.d.L. in Informatica, Università di Bologna.                              |
| <b>2002-2005</b> | “Laboratorio di Sistemi Operativi MZ”, C.d.L. in Informatica, Università di Bologna.               |
| <b>2003-2005</b> | “Laboratorio di Elementi di Informatica AL”, C.d.L. in Biotecnologie, Università di Bologna.       |

### Other courses

|                  |                                                                                                                                                                             |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2017-2019</b> | “Laboratorio di Pensiero Computazionale”, in Percorsi di aggiornamento “Lo studio della mente e l’arte di insegnare”, Univ. of Trento.                                      |
| <b>2017</b>      | ”Computational thinking”, in Corso di Perfezionamento in ”Tecnologia per l’Educazione: Dispositivi e Diversità”, Univ. of Trento.                                           |
| <b>2003-2005</b> | “Sicurezza nei Sistemi Operativi”, Master Almageb in Sicurezza dei Sistemi Informativi.                                                                                     |
| <b>2001-2005</b> | “Tecnologie e Servizi Internet / Programmazione Web” (Laboratory Course), Master Almageb in Comunicazione e Tecnologie della Comunicazione / Tecnologie Web per le Imprese. |

### Supporto alla didattica

|                  |                                                                                   |
|------------------|-----------------------------------------------------------------------------------|
| <b>2001-2002</b> | “Laboratorio di Sistemi Operativi”, C.d.L. in Informatica, Università di Bologna. |
| <b>2000-2002</b> | “Architetture degli Elaboratori”, C.d.L. in Informatica, Università di Bologna.   |
| <b>2000-2005</b> | “Sistemi Complessi Adattivi”, C.d.L. in Informatica, Università di Bologna.       |
| <b>1997-1999</b> | “Sistemi 1”, C.d.L. in Informatica, Università di Bologna.                        |

### E-learning

|                  |                                                                                                 |
|------------------|-------------------------------------------------------------------------------------------------|
| <b>2003-2004</b> | “Sistemi Operativi”, Progetto A3 (Ambiente Accessibile d’Apprendimento), Università di Bologna. |
|------------------|-------------------------------------------------------------------------------------------------|

### Supervisione di tesi

|                  |                                                                                                   |
|------------------|---------------------------------------------------------------------------------------------------|
| <b>2002-2005</b> | At the University of Bologna, he supervised and co-supervised 13 B.Sc. theses and 17 M.Sc. theses |
| <b>2005-2018</b> | At the Univ. of Trento, he supervised and co-supervised 61 B.Sc. theses and 31 M.Sc. theses       |

|                  |                                                                               |
|------------------|-------------------------------------------------------------------------------|
| <b>2006-2010</b> | Ph.D. Supervision, Marco Biazzi, now Development Engineer at Amadeus IT Group |
| <b>2008-2013</b> | Ph.D. Co-supervision, Giuliano Mega, now researcher at SpazioDati             |
| <b>2009-2013</b> | Ph.D. Supervision, Hanna Kavalionak, now post-doc at CNR - Pisa               |
| <b>2011-2015</b> | Ph.D. Supervision, Alessio Guerrieri, now researcher at SpazioDati            |
| <b>2014-2019</b> | Ph.D. Supervision, Zekarias Kefato, now post-doc at KTH (Stockholm)           |
| <b>2016-2019</b> | Ph.D. Supervision, Nasrullah Sheikh, now at IBM - Almaden                     |
| <b>2014-</b>     | Ph.D. Supervision, Cristian Consonni                                          |

## 5 Attività professionali

### Incarichi organizzativi

|                  |                                                                                                                                                             |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2019-</b>     | Delegate of the Rector for ICT Services, University of Trento.                                                                                              |
| <b>2018-</b>     | Delegate for the relationships with Secondary Schools, Dept. of Information Engineering and Computer Science, University of Trento.                         |
| <b>2015-2018</b> | Delegate for the relationships with CLA, Dept. of Information Engineering and Computer Science, University of Trento.                                       |
| <b>2012-2015</b> | Education Coordinator, Dept. of Information Engineering and Computer Science, University of Trento.                                                         |
| <b>2010-2013</b> | Member of the “Nucleo di Valutazione” of the University of Trento.                                                                                          |
| <b>2007-2012</b> | Coordinator of the ATLAS Project - Double Degree in Computer Science in Cooperation with Georgia Institute of Technology, Technischen Universitaet Muenchen |
| <b>2009-2012</b> | Delegato per l'orientamento, Faculty of Science, University of Trento                                                                                       |
| <b>2009-2012</b> | Delegato per la disabilità, Faculty of Science, University of Trento                                                                                        |
| <b>2006-2009</b> | Coordinator of the Computer Science Degree Committee (Consiglio d'Area Didattica in Informatica), Faculty of Science, University of Trento.                 |

### Comitati editoriali

|              |                                               |
|--------------|-----------------------------------------------|
| <b>2011-</b> | Associate Editor, Springer Computing Journal. |
|--------------|-----------------------------------------------|

### Numeri speciali su rivista

|             |                                                          |
|-------------|----------------------------------------------------------|
| <b>2012</b> | Extreme Distributed Systems, Springer Computing Journal. |
|-------------|----------------------------------------------------------|

### Steering committee member

|                  |                                                                                  |
|------------------|----------------------------------------------------------------------------------|
| <b>2007-2009</b> | Int. Conf. on Distributed Systems and Interoperable Applications (DAIS).         |
| <b>2007-2013</b> | Int. Conf. on P2P Computing (P2P). Since October 2010, steering committee chair. |



## General chair

- 2018**            12<sup>th</sup> Int. Conf. on Peer-to-Peer Computing ([SASO'18](#)).
- 2007**            7<sup>th</sup> Int. Conf. on Self-Adaptive and Self-Organizing Systems ([P2P'07](#)).

## Programme committee chair

- 2016**            1<sup>st</sup> Workshop on Edge Computing ([WEC'16](#))
- 2009**            3<sup>rd</sup> Int. Conf. on Self-Adaptive and Self-Organizing Systems ([SASO'09](#)), Program Co-Chair.
- 2008**            Distributed Objects, Middleware, and Applications (DOA'08), Program Co-Chair.
- 2006**            6<sup>th</sup> Int. Conf. on Peer-to-Peer Computing ([P2P'06](#)), Program Co-Chair.
- 2006**            6<sup>th</sup> Int. Conf. on Distributed Systems and Interoperable Applications ([DAIS'06](#)), Program Co-Chair.
- 2004**            Int. Workshop on Self-\* Properties in Complex Information Systems ([SelfStar'04](#)), Program Co-Chair.

## Track chair

- 2018**            Distributed Systems and Algorithms Topic, [EuroPar 2018](#), Topic Co-Chair.
- 2014**            Social Networks, Crowdsourcing, and P2P systems Track, ICDCS'14, Track Chair
- 2012**            Peer-to-Peer Computing Topic, [EuroPar 2012](#), Topic Co-Chair.
- 2011**            Peer-to-Peer Computing Topic, [EuroPar 2011](#), Topic Co-Chair.
- 2008**            Peer-to-Peer Computing Topic, [EuroPar 2008](#), Vice Co-Chair.
- 2007**            Peer-to-Peer Computing Topic, [EuroPar 2007](#), Topic Co-Chair.

## Finance chair

- 2013**            13<sup>th</sup> Int. Conf. on Peer-to-Peer Computing ([P2P'13](#)), Trento, Italy
- 2008**            2<sup>nd</sup> Int. Conf. on Self-Adaptive and Self-Organizing Systems ([SASO'08](#)), Venice, Italy.

## Attività di organizzazione

- 2002-2004**      Bertinoro Int. Summer School, Bertinoro (Forlì), Italy
- 2002**            7<sup>th</sup> Cabernet Radicals Workshop, Bertinoro (Forlì), Italy.
- 2002**            1<sup>st</sup> Int. Workshop on Future Directions in Distributed Computing, Bertinoro, Italy.
- 2001**            4<sup>th</sup> European Research Seminar on Advances in Dist. Comp. Systems (ERSADS'01), Bertinoro, Italy,
- 1996**            10<sup>th</sup> Int. Workshop on Distributed Algorithms (WDAG'96), Bologna, Italy.

## Program committee member

SAC'19, CryBlock'18, OPODIS'18, CLOUDCOM'18, TD-LSG'18, DaMNet'18, SAC'18, ICCCN'18, UCC'17, DAIS'17, HPDC'17, DAIS'16, Middleware'16, ICPADS'16, LSDVE'16, ICDCS'16, Middleware'15, ICPADS'15, P2P'15, DAIS'15, Middleware'14, DAIS'14, ORMACLOUD'14 P2P'13, DAIS'13, OPODIS'13, PDP'13 ORMACLOUD'13 P2P'12, DAIS'12, EDCC'12, MSOP2P'12, OPODIS'11, SCS'11, P2P'11, SASO'11, SCS'11, MSOP2P'11, COMSWARE'11, SASO'10, P2P'10, DAIS'10, EDCC'10, HICCS'10, Hot-P2P'10, SCS'10, COPS'09 DAIS'09, AP2PC'09, Hot-P2P'09, SOPDS'09, HICCS'09, ComP2P'08, P2P'08, DBISP2P'08, SASO'08, ATC'08, AP2PC'08, SOPDS'08, ASSESS'08, PPN'07, EEDAS'07, Autonomics'07, SASO'07, DBIP2P'07, PPN'07, Coordination'07, DAIS'07, AP2PC'07, AP2PC'06, ATC'06, ESOA'06, I2CS'06, STD3S'06, DBISP2P'06, Bio-Adit'06, P2P'05, StoDis'05, AAMAS'05, AP2PC'05, ESOA'05, SIC'05, DBISP2P'05, IAT'05, Self-\* 2004, P2PKM'04, AP2PC'04, P2P'04, IAT'04, DBISP2P'04, Bio-Adit'04, P2P'03, AP2PC'03, DBISP2P'03

## Attività di revisione per riviste

ACM Computing Survey, IEEE Trans. on Parallel and Distributed Systems, IEEE Trans. on Computers, IEEE Trans. on Computer Communication, IEEE Trans. on Computer Networks, IEEE Trans. on Knowledge Engineering, IEEE Trans. on Network and Service Management, IEEE Trans. on Dependable and Secure Computing, IEEE Trans. on Autonomous and Adaptive Systems, IEEE Trans. on Systems, Man, and Cybernetics, IEEE Journal on Selected Areas in Communications, IEEE Internet Computing, Elsevier Journal of Parallel and Distributed Computing, Elsevier Distributed Computing, Elsevier Computer Networks, Elsevier Journal of Network and Computer Applications, Springer Swarm Intelligence. Springer Peer-to-Peer Networking and Applications, Wiley Concurrency and Computation: Practice and Experience, Oxford Computer Journal, IOP Distributed Systems Engineering,

## Attività di revisione di progetto

|                  |                                                                      |
|------------------|----------------------------------------------------------------------|
| <b>2016</b>      | External Reviewer, Swiss National Science Foundation, Switzerland    |
| <b>2014,2015</b> | External Reviewer, Qatar National Research Fund, Qatar.              |
| <b>2013</b>      | External Reviewer, Swedish Knowledge Foundation, Sweden.             |
| <b>2010</b>      | External reviewer, ERC Advanced Grant 3rd Call - 2010.               |
| <b>2009,2010</b> | External reviewer, Nanyang Technological University, Singapore.      |
| <b>2006</b>      | External reviewer, Nordunet3 Research Programme in network research. |
| <b>2004</b>      | External reviewer, Swedish Research Council.                         |

## Servizio in commissioni di dottorato

|             |                                                                                         |
|-------------|-----------------------------------------------------------------------------------------|
| <b>2018</b> | Lucas L. Provensi, invitato da Frank Eliassen, University of Oslo, Norway               |
| <b>2016</b> | Istvan Hegedus, invitato da Mark Jelasity, University of Szeged, Hungary                |
| <b>2016</b> | Tommaso Pirini, invitato da Claudio Sartori, Università di Bologna, Italy               |
| <b>2015</b> | Ruma Paul, invitato da Vladimir Vassov, KTH, Sweden                                     |
| <b>2013</b> | Roberto Roverso, invitato da Seif Haridi, KTH, Sweden                                   |
| <b>2013</b> | Tallat Shafaat, invitato da Seif Haridi, KTH, Sweden                                    |
| <b>2013</b> | Paal Evensen, invitato da Hein Meling, University of Stavanger, Norway                  |
| <b>2013</b> | Rajesh Sharma, invitato da Anwitaman Datta, Nanyang Technological University, Singapore |

|             |                                                                                        |
|-------------|----------------------------------------------------------------------------------------|
| <b>2012</b> | Jan Mark Wams, invitato da Maarten van Steen, VU University Amsterdam, The Netherlands |
| <b>2011</b> | Amir Payberah, invitato da Seif Haridi, KTH, Sweden.                                   |
| <b>2011</b> | Rameez Rahman, invitato da Henk Sips, Delft University of Technology, The Netherlands  |
| <b>2010</b> | Kovendhan Ponnaivaikko, invitato da J. Dharanipragada, IIT Madras, India.              |
| <b>2009</b> | Bartosz Biskupski, invitato da Renè Meier, Trinity College, Dublin, Ireland.           |
| <b>2009</b> | Marc Sanchez, invitato da Pedro Garcia Lopez, Univ. Pompeu Fabra, Spain.               |
| <b>2008</b> | Roman Schmidt, invitato da Karl Aberer, EPFL, Switzerland.                             |

## 6 Keynote Speaker

|             |                                                                                                                                                    |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2012</b> | “Designing extreme distributed systems: challenges and opportunities”. Comparch 2012, Bertinoro, Italy.                                            |
| <b>2010</b> | “Cloudy Weather for P2P, with a Chance of Gossip”. Brazilian Symposium on Computer Networks and Distributed Systems (SBRC), Gramado, Brasil, 2010. |
| <b>2008</b> | “Intelligent Gossip”. 2nd International Symposium on Intelligent Distributed Computing (IDC 2008), Catania, Italy.                                 |

## 7 Invited talk, seminari e tutorial

|             |                                                                                                                                                                                    |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2016</b> | “Gossip as a framework”. Middleware 2016, December 2016, Trento, Italy.                                                                                                            |
| <b>2016</b> | “Reflecting on the past, preparing for the future: from peer-to-peer to edge-centric computing”. International Conference on Distributed Computing Systems. June 2016, Nara, Japan |
| <b>2010</b> | “Cloudy Weather for P2P, with a Chance of Gossip”. International Workshop on Distributed Systems (IWDS). November 2010, IIT-Kanpur, India                                          |
| <b>2009</b> | “Gossiping in P2P networks”. International Workshop on Distributed Systems (IWDS). December 2009, IIT-Madras, India                                                                |
| <b>2006</b> | “The Bootstrapping Service”. EPFL, Switzerland. Invited Seminar.                                                                                                                   |
| <b>2005</b> | “The Peer-to-Peer Paradigm”, GARR’05 Conference “La rete daPERTutto”, Pisa, Italy. Tutorial.                                                                                       |
| <b>2004</b> | “Computing Aggregate Functions on Large-Scale Distributed Systems”. Università di Trento, Italy. Invited seminar.                                                                  |
| <b>2004</b> | “Computing Aggregate Functions on Large-Scale Distributed Systems”. Università di Verona, Italy. Invited seminar.                                                                  |
| <b>2003</b> | “The Bison Project”, 1 <sup>st</sup> COE Symposium on Networked Information System, Osaka, Japan. Invited talk.                                                                    |
| <b>2002</b> | “The Jgroup Project”, University of Trondheim, Norway. Invited seminar.                                                                                                            |
| <b>2001</b> | “The Jgroup Project”, Università di Roma, Italy. Invited seminar.                                                                                                                  |

|             |                                                                                                                     |
|-------------|---------------------------------------------------------------------------------------------------------------------|
| <b>2001</b> | “Experience with Reliable Group Communication”, ICDCS Workshop on Reliable Group Communication, Mesa, AZ. Panelist. |
| <b>2000</b> | Sun Laboratory at Burlington, MA. Research visit.                                                                   |
| <b>1999</b> | Sun Laboratory at Aspen, CO, and Burlington, MA. Research visit                                                     |
| <b>1999</b> | “The Jgroup Distributed Object Model”. Dept. of Computer Science, University of Cambridge, UK. Invited seminar.     |

## 8 Esperienze lavorative

|                  |                                                                                                                                                                                                                                                                                                       |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2002</b>      | Redazione scientifica dell’opera “Quattro.Zero”, di Federico Tibone e compilazione dell’appendice “Quattro.Zero – Materiali per l’insegnante”, su incarico di Zanichelli Editore (Bologna)                                                                                                            |
| <b>2002</b>      | Redazione scientifica dell’opera “A Portata di Mouse”, di Federico Tibone e compilazione dell’appendice “A Portata di Mouse – Materiali per l’insegnante”, su incarico di Zanichelli Editore (Bologna)                                                                                                |
| <b>2001</b>      | Redazione scientifica delle opere “Computer Multimediale” di G. Russo, J. Jamrich-Parsons e D. Oja, e “Scrivere e comunicare con il computer” di G. Russo, M.L. Swangson, D.I. Barker e C.L.H. Barker, su incarico di Zanichelli Editore di Bologna.                                                  |
| <b>2000-2002</b> | Attività didattica per conto della Sun Microsystems Italia, su temi riguardanti Java, Java RMI, Servlet, Enterprise JavaBeans e sicurezza in Java.                                                                                                                                                    |
| <b>2000</b>      | Attività didattica per due stage aziendali organizzati dalla NCH (Network Computer House) di Bologna e finanziati dalla Comunità Europea, su temi riguardanti elementi fondamentali di informatica, architettura degli elaboratori, sistemi operativi, reti informatiche, sicurezza e programmazione. |
| <b>2000-2002</b> | Realizzazione, in più riprese, di software per l’analisi della qualità paesaggistica, a seguito di incarichi del Dipartimento di Biologia dell’Università di Padova.                                                                                                                                  |
| <b>1998</b>      | Redazione scientifica della traduzione dell’opera “Computer Networks” di L. Peterson e B. Davie, su incarico di Norma Srl di Parma e Zanichelli Editore di Bologna.                                                                                                                                   |
| <b>1996-1997</b> | Traduzione dall’inglese all’italiano dei capitoli 5 e 6 dell’opera “Computer Networks” di Andrew S. Tanenbaum, su incarico della Società UTET Libreria S.r.l.                                                                                                                                         |
| <b>1996</b>      | Realizzazione di un software per la gestione degli orari (lezioni e tesi di laurea), su incarico dell’Università di Venezia “Cà Foscari”.                                                                                                                                                             |
| <b>1992-2001</b> | Realizzazione, in più riprese, di software di analisi della qualità delle rive relative al bacino idrografico del fiume Adige, a seguito di incarichi della Provincia di Verona, della Regione Veneto e del Dipartimento di Biologia dell’Università di Padova.                                       |
| <b>1991</b>      | Realizzazione di un software per l’analisi dei testi letterari, su incarico dell’Università di Venezia “Cà Foscari”.                                                                                                                                                                                  |

# Roberto Passerone – Curriculum Vitæ

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## Personal information

Name: Roberto Passerone

## Present appointment

*Associate Professor*  
Dipartimento di Ingegneria e Scienza dell'Informazione  
University of Trento  
via Sommarive 9  
38123 Trento (TN)  
Italy

- *Habilitations*

July 26 2018, **Italian National Scientific Habilitation (Abilitazione Scientifica Nazionale)** for the position of *Full Professor*, in the area *Computer Engineering*, ING-INF/05.

August 28 2018, **Italian National Scientific Habilitation (Abilitazione Scientifica Nazionale)** for the position of *Full Professor*, in the area *Electronics*, ING-INF/01

## Professional experience

| From / to                                                                 | Job title           | Name of Institution, Employer                                           | Responsibilities                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Apr 2018 / present                                                        | Associate Professor | University of Trento                                                    | Teaching, tutoring, research, projects, administration. Responsible for the classes of Digital Electronics in the bachelor degree courses and for Advanced Computing Architecture in the Master's degree.                                                                                                                                                                 |
| Mar 2006 / Mar 2018                                                       | Researcher          | University of Trento                                                    | Teaching, tutoring, research, projects, administration.                                                                                                                                                                                                                                                                                                                   |
| Oct / Dec 2011<br>Mar / Dec 2012<br>Apr / Dec 2013<br>Jan 2014 / Mar 2015 | Research Consultant | Ales Srl, Rome, Italy (now part of United Technologies Research Center) | Project consultant for the development of modeling, design and verification methodologies in the context of the European Projects SPRINT (Software Platform for Integration of Engineering and Things, grant agreement no. 257909) and the European Project DANSE (Designing for Adaptability and evolution in System of systems Engineering, grant agreement no. 287716) |
| Oct / Dec 2006<br>Jan 2007 / Jul 2009                                     | Research Consultant | PARADES GEIE, Rome, Italy                                               | Project consultant for the development of semantic models and verification methods using contract-based specifications in the context of the European Project IP-SPEEDS (Speculative and Exploratory Design in System Engineering, grant agreement no. 033471)                                                                                                            |
| Dec 2004 / Oct 2005                                                       | Research Scientist  | Cadence Berkeley Laboratories, Berkeley, CA                             | Lead researcher on the physical implementation of VLSI circuits with emphasis on clock tree analysis and optimization Investigation of the specification and synthesis of transactors between                                                                                                                                                                             |

|                     |                                  |                                                                        |                                                                                                                                                                                                                                                                                                  |
|---------------------|----------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     |                                  |                                                                        | transaction level and register transfer level system descriptions                                                                                                                                                                                                                                |
| Dec 2003 / Dec 2004 | Associate Research Scientist     | Cadence Berkeley Laboratories, Berkeley, CA                            | Research and development of a framework for characterization of different models of computation and for studying their relationships. Study the synthesis and verification of communication protocols and of interfaces at different levels of abstraction                                       |
| Aug 2000 / Nov 2003 | Member of Consulting Staff       | Cadence Design Systems, Berkeley, CA                                   | Member of the Virtual Component Co-Design (VCC) product development team. Focus on the synthesis of C and Verilog RTL code for the hardware and software implementation of high-level automata-based specifications. Core developer of the open source Esterel-C programming and design language |
| Aug 1999 / Aug 2000 | Senior Member of Technical Staff | Cadence Design Systems, San Jose, CA                                   |                                                                                                                                                                                                                                                                                                  |
| Mar / Jul 1998      | Consultant                       | Cadence Design Systems, Milan, Italy                                   | Consulted on component-based design methodologies and interface synthesis                                                                                                                                                                                                                        |
| May / Aug 1997      | Summer intern                    | Cadence Design Systems, Sunnyvale, CA                                  | Devised an interface synthesis algorithm for component-based designs.                                                                                                                                                                                                                            |
| Dec 1993 / Oct 1994 | Corporal                         | Comando Leva, Reclutamento e Mobilitazione, Torino, Italy              | Database application development and support, network administration and field support for the Italian North-West Military Region.                                                                                                                                                               |
| Jun / Aug 1992      | Summer Intern                    | European Organization for Nuclear Research (CERN), Geneva, Switzerland | Designer in the high-rate data acquisition system group for the Large Hadron Collider.                                                                                                                                                                                                           |

## Education

- PhD degrees

2004, **PhD degree** in Electrical Engineering and Computer Sciences, University of California, Berkeley. Title of the thesis: “Semantic Foundations for Heterogeneous Systems”. Major in Design Automation technologies (synthesis and simulation) with focus on languages and models of concurrency and computation for the design of heterogeneous systems. Minor in Mathematics (mathematical logic, recursive functions and model theory) and in Computer Sciences (computer architecture, digital signal processing, compilers and programming language semantics).

1998, **Dottorato di Ricerca** in Ingegneria Elettronica e delle Comunicazioni, Politecnico di Torino. Title of the thesis: “Progetto di Architetture Cellulari per Elaborazione di Immagini”. Focus on the design of parallel processor VLSI architectures for image processing, manipulation and analysis. Attended courses on Neural Networks and Applied Mathematics.

- Masters' degrees

1997, **Master's degree** in Electrical Engineering and Computer Sciences, University of California, Berkeley. Title of the thesis: “Automatic Synthesis of Interfaces Between Incompatible Protocols”.

1994, **Laurea** in Ingegneria Elettronica, Politecnico di Torino. Title of the thesis: “Progetto e Realizzazione di Architetture Cellulari per l'Elaborazione delle Immagini”, final vote 110 cum laude / 110.

- Professional Habilitations

1994, **Professional Engineering License**, Politecnico di Torino.

### Project grants and project participation

Grants and contracts for which he has been responsible as primary investigator and fund administrator.

| Date granted              | Award Holder(s)                      | Funding Body                                            | Title                                                                                                           | Amount received |
|---------------------------|--------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------|
| Jul 20 2020 / Jan 20 2021 | Roberto Passerone                    | SMACT scpa                                              | Compact Neural Networks for Camera Tasks                                                                        |                 |
| Dec 5 2017                | Roberto Passerone                    | MIUR                                                    | Fondo per le attività base di ricerca                                                                           |                 |
| Aug 4 2016 / Aug 4 2017   | Roberto Passerone                    | Microtel Innovation Srl, Borgo Valsugana, Italy         | Sistema FNVF (FPGA Network Visibility Fabric)                                                                   |                 |
| Jan 25 2013 / Sep 27 2013 | Roberto Passerone                    | University of Parma                                     | Development of Image Acquisition and Processing Algorithms based on FPGAs for an Intelligent Steroscopic Camera |                 |
| Jan 1 2008 / Mar 31 2011  | Roberto Passerone, Local Coordinator | European Union, Project ID 215543, Call FP7-ICT-2007-1  | COMBEST: COMponent-Based Embedded Systems design Techniques                                                     |                 |
| Sep 1 2009 / Mar 31 2012  | Roberto Passerone, Local Coordinator | European Union, Project ID 214373, Call FP7-ICT-2007-1  | ArtistDesign - Design for Embedded Systems                                                                      |                 |
| Jul 1 2013 / Feb 28 2015  | Roberto Passerone, Local Coordinator | European Union, Project ID 611430, Call FP7-ICT-2013-10 | CyPhERS: Cyber-Physical European Roadmap and Strategy                                                           |                 |

Projects he has been involved with as investigator, contributing to the research and to the project deliverables.

- **Participation** to the scientific research in the PRIN project entitled “Realtime Control of 5G Wireless Networks: Taming the Complexity of Future Transmission and Computation Challenges”, grant number 2017NS9FEY, from March 2020, ongoing.
- **Participation** to the scientific research in the European H2020 Project “A Cyber-Physical Social Network Using Robot Friends” (ACANTO), grant number 643644, from February 2015 to September 2018.
- **Participation** to the scientific research in the project “Energy Autonomous Low Power Vision System” (EnerVis), financed by the Provincia Autonoma di Trento, from June 2012 to June 2013.
- **Participation** to the scientific research in the European FP7 Project “Devices for Assisted Living” (DALi), grant number 288917, from January 2010 to October 2014.

- **Participation** to the scientific research in the industrial project “MTSDepth”, between the University of Trento and Jefferies, London, UK, from May 2014 to October 2014.
- **Participation** to the scientific research in the industrial project “Accenture” between the University of Trento and Accenture, from October 2011 to June 2012.
- **Participation** to the scientific research in the European FP7 Project “Model-based synthesis of digital electronic circuits for embedded control” (MOBY-DIC), grant number 248858, from January 2010 to December 2011.
- **Participation** to the scientific research in the project A-Cube funded by the Provincia Autonoma di Trento - Bando Grandi Progetti, contract number 279, from October 2008 to 2010.
- **Participation** to the scientific research in the industrial project “Model Based Design per sistemi Motociclistici” between the University of Trento and Ducati Energia, from October 2007 to December 2009.

**Academic and professional responsibilities**

*Internal appointments to faculty and university boards*

- **Appointed Delegate of the Department** for Quality. DISI, University of Trento, May 2020 – present.
- **Appointed Member of the Selection Committee** for the selection of teaching collaborators. DISI, University of Trento, January 2020 – present.
- **Appointed Delegate of the Department** for the relations with the University Language Center (Centro Linguistico di Ateneo). DISI, University of Trento, May 2018 – present.
- **Elected Representative of the Research Unit in Electronics** for the University of Trento at the Associazione Società Italiana di Elettronica. University of Trento, March 2018 – present.
- **Elected member of the Executive Committee** of the ICT Doctoral School. University of Trento, October 2016 – present.
- **Appointed Member of the Commissione Spazi**, responsible for planning the space allocation of the department (three members). DISI, University of Trento, February 2013 – present.
- **Member of the “Collegio Docenti”** of the ICT Doctoral School. DISI, University of Trento, 2006 – present.
- **Appointed Member of the Selection Committee** for the position of technician, category D, 1-year fixed term, selection n. 133 d.d. 13 giugno 2018. DISI, University of Trento, July 2018.
- **Member of the Selection Committee** for the best PhD thesis award of the ICT Doctoral School. University of Trento, March – April 2018.
- **Project reviewer** for the Call for Project Proposals of the Cyber-Physical Systems action line of the European Institute of Technology (EIT) ICT Labs. University of Trento, Year 2014.
- **Aggregate Member of the State Examination Committee** in Engineering. University of Trento, Academic Year 2017 – 2018.
- **Appointed Delegate of the Department** for Stages and relations with industry and professional orders. DISI, University of Trento, February 2008 – February 2011.
- **Aggregate Member of the State Examination Committee** in Engineering. University of Trento, Academic Year 2008 – 2009.



- **Appointed Effective Member of the Admission Committee** of the Doctoral School in Information and Communication Technology, 24' cycle. University of Trento, June 2008.
- **Representative** for the University of Trento with the Europractice Microelectronic Service. October 2006 – October 2015.
- **Lecturer** for high school students in the program Pensa Trasversale, organized by the University of Trento, on the topic “Waves and Spectra”, November 2010.
- **Appointed Delegate of the Department** for coordinating purchase of teaching and laboratory equipment. DISI, University of Trento, December 2006 – February 2008.
- **Appointed President of the Electoral Committee** for the College of Engineering of the University of Trento for the election of the Student Representatives to the University Governing Bodies. University of Trento, November 2006.

*External appointments at national and international level*

- **Member of the Evaluation Committee** for the final PhD examination of the candidate Alexander Menshchikov, “Intelligent Agricultural Monitoring Using UAV”, Skolkovo Institute of Science and Technology, Russia, October 2020.
- **Member of the Evaluation Committee** for the final PhD examination of the candidate Fabian Mauroner, “mosartMCU: An Operating-System-Aware Microcontroller for Embedded Real-Time Multi-Core Systems”, Graz University of Technology, Institute for Technical Informatics. October 2018 – April 2019.
- **Member of the Examining Committee** for the selection of a University Researcher B (ricercatore a tempo determinato di tipo B), Politecnico di Torino, August – November 2018.
- **External Referee** for tenure appointment and promotion to Associate Professor for the candidate Mohamad Jaber, Department of Computer Science (CMPS) in the Faculty of Arts and Sciences (FAS) at the American University of Beirut (AUB), Lebanon, November 2018 – January 2019.
- **External Reviewer** for the final PhD examination of the candidate Alexander Antonov Alexandrovich, “Methods and Tools for Computer-Aided Synthesis of Processors Based on Microarchitectural Programmable Hardware Generators”, ITMO University, Saint-Petersburg, Russia, December 2018.
- **External Reviewer** for the PhD thesis of Mehdi Roozmeh, “High Performance Computing via High Level Synthesis”, Politecnico di Torino, January – May 2018.
- **Member of the Evaluation Committee** for the candidates admitted to the final examination for the degree of “Dottore di ricerca” (PhD) in TECNOLOGIE DELL’INFORMAZIONE – 25' cycle, Università degli Studi di Parma, April 12, 2013.
- **Member of the Evaluation Committee** for the final PhD examination of the candidate Alexios Lekidis, “Design flow for the rigorous development of networked embedded systems”, Université de Grenoble, Grenoble, France, December 10, 2015.
- **Member of the Evaluation Committee** for the final PhD examination of the candidate Paraskevas Bourgos, “Flot de conception rigoureux pour la

programmation de plates-formes Manycore”, Université de Grenoble, Grenoble, France, April 9, 2013.

- **Member of the Evaluation Committee** for the final PhD examination of the candidate Vassiliki Sfyrila, “Modélisation des Systèmes Synchrones sur BIP”, Université de Grenoble, Grenoble, France, June 21, 2011.
- **Member of the Evaluation Committee** for the final PhD examination of the candidate Sophie Quinton, “Design, vérification et implémentation de systèmes à composants”, Université de Grenoble, Grenoble, France, January 21, 2011.
- **Examiner for the doctoral thesis** of Karin Avnit, “Provably correct on-chip communication: A formal approach to automatic synthesis of SoC protocol converters”, School of Computer Science and Engineering, University of New South Wales, Australia, December 2009.

#### *Appointments in Professional Societies*

- **Technical Subcommittee Co-chair** of the Networked Embedded Systems in Industrial & Factory Automation subcommittee, part of the IEEE Industrial Electronics Society Technical Committee on Factory Automation, from 2008 to present.
- **Secretary** of the standard group IEEE P1699, from 2007 to 2009.
- **Co-chair** of the Accellera Rosetta and Semantics Standards Working Group, from 2001 to 2007.

#### *Responsibilities for organizing conferences/seminars/exhibitions*

- **Program chair** of the 13th IEEE International Symposium on Industrial Embedded Systems (SIES 2018), Graz, Austria, June 6-8, 2018.
- **Track Program Chair** of the track “Track 8 - Intelligent Sensors, Sensor Networks, and Information Processing” of the 23rd IEEE International Conference on Emerging Technologies and Factory Automation (ETFA 2018), Torino, Italy, September 4-7, 2018.
- **Special Sessions chair** of the 12th IEEE International Symposium on Industrial Embedded Systems (SIES 2017), Toulouse, France, June 7-9, 2017.
- **Track chair** of the track “Work-in-Progress” of the 11th IEEE International Symposium on Industrial Embedded Systems (SIES 2016), Krakow, Poland, 23-26 May 2016.
- **General chair** of the 10th IEEE International Symposium on Industrial Embedded Systems (SIES 2015), Siegen, Germany, June 8-10, 2015.
- **General chair** of the 9th IEEE International Symposium on Industrial Embedded Systems (SIES 2014), Pisa, Italy, June 18-20, 2014.
- **Co-organizer** of the CPSWeek satellite workshop “CPS20: CPS 20 years from now – visions and challenges”, Berlin, Germany, April 14, 2014.
- **Program chair** of the 8th IEEE International Symposium on Industrial Embedded Systems (SIES 2013), Porto, Portugal, June 19-21, 2013.
- **General co-chair** of the Second Advanced School on ICT for Future Energy Systems, Trento, Italy, September 11 – 14, 2012.
- **General co-chair** of the First Advanced School on ICT for Future Energy Systems, Trento, Italy, July 25 – 29, 2011.
- **Program chair** of the 6th IEEE International Symposium on Industrial Embedded Systems (SIES 2011), Västerås, Sweden, June 15-17, 2011.

- **Track Program chair** of the track “Real-Time and (Networked) Embedded Systems” of the 15th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA 2010), Bilbao, Spain, September 13–16, 2010.
- **General Chair** of the First Workshop on Green and Smart Embedded System Technology: Infrastructures, Methods and Tools (GREEMBED 2010), Stockholm, Sweden, April 12, 2010.
- **General chair** of the 5th IEEE International Symposium on Industrial Embedded Systems (SIES 2010), Trento, Italy, July 7–9, 2010.
- **Co-organizer** of the workshop Smart and Energy Efficient Council (SEEC 2009), Trento, Italy, October 8-9, 2009.
- **Track Program chair** of the track “Real-Time and (Networked) Embedded Systems” of the 14th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA 2009), Mallorca, Spain, September 22-26, 2009.
- **Track Program chair** of the track “Work-in-progress” of the 4th IEEE International Symposium on Industrial Embedded Systems (SIES 2009), Lausanne, Switzerland, July 8–10, 2009.
- **Track Program chair** of the track “Real-Time and (Networked) Embedded Systems” of the 13th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA 2008), Hamburg, Germany, September 15–18, 2008.

## ELISA RICCI - CURRICULUM VITAE

### Personal details

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**Name:** Elisa  
**Surname:** Ricci  
**Date of Birth:**  
**Nationality:**

**Address (UNITN):** Department of Information Engineering and Computer Science (DISI), University of Trento  
via Sommarive 9, 38123, Povo (TN), Italy.  
**phone:**  
**email:**

**Address (FBK):** Fondazione Bruno Kessler (FBK), via Sommarive 18, 38123, Povo (TN), Italy.  
**Phone:**  
**email:**  
**Web:**

### Employment history

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|                               |                                                                                                                                    |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| December 2017 – present       | Associate Professor<br>Department of Information Engineering and Computer Science (DISI), University of Trento, Trento (IT)        |
| December 2017 – present       | Senior Researcher & Head of Unit<br>Fondazione Bruno Kessler, Trento (IT)                                                          |
| November 2013 – April 2016    | Researcher<br>Fondazione Bruno Kessler, Trento (IT)                                                                                |
| January 2011 – December 2017  | Assistant Professor <sup>1</sup><br>Department of Engineering, University of Perugia, Perugia (IT)                                 |
| June 2012- July 2012          | Visiting Researcher<br>University of Bristol, Bristol (UK)                                                                         |
| March 2009 – December 2010    | Researcher<br>Fondazione Bruno Kessler, Trento (IT)                                                                                |
| March 2008 – February 2009    | Postdoctoral researcher<br>Idiap Research Institute, Martigny (CH)<br>Advisor: Dr. Jean Marc Odobez.                               |
| May 2006 – April 2007         | Research Intern<br>Department of Engineering Mathematics, University of Bristol , Bristol (UK)<br>Advisor: Prof. Nello Cristianini |
| November 2004 – February 2008 | PhD Student<br>Department of Engineering, University of Perugia, Perugia (IT)<br>Advisor: Prof. Renzo Perfetti                     |
| May 2004 - December 2004      | Presales engineer and applications consultant<br>Blue System s.r.l., Perugia (IT)                                                  |
| October 2003 - March 2004     | Master thesis internship<br>Swiss Federal Institute of Technology (ETH), Zurich (CH),<br>Advisor: Dr. Mauro Ciappa                 |

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<sup>1</sup>On leave from UNIPG (aspettativa articolo 7 legge 240/2010) dal 01/11/2013 al 30/04/2016.

## Education

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|                               |                                                                                                     |
|-------------------------------|-----------------------------------------------------------------------------------------------------|
| November 2004 – February 2008 | PhD in Electronic and Information Engineering.<br>University of Perugia (IT).                       |
| November 2004                 | Italian engineering licence (Professional practice examination),<br>University of Perugia (IT).     |
| October 1998 – March 2004     | Master in Electrical Engineering at University of Perugia (IT).<br>Final scores: 110/110 cum Laude. |
| October 1993 – July 1998      | High School Diploma at Liceo classico, Todi, Perugia (IT).<br>Final scores: 60/60.                  |

## Languages

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**Italian:** mother tongue.

**English:** fluent.

**French:** basic.

## Research projects & grants

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- (2020-2023) **H2020 EU Project SPRING** (Socially Pertinent Robots in Gerontological Healthcare)
- (2020-2022) **H2020 EU Project MARVEL** (Multimodal Extreme Scale Data Analytics for Smart Cities Environments)
- (2018 – 2020) **Project SMARTourism** funded by Fondazione Caritro,
- (2018 – 2019) **Project SPROUT** (School on Learning, Perception & Robotics) funded by Euregio Mobility
- (2011 – 2012) **Project ALPS** (Autonomous, ultra Low Power visual Sensors for surveillance and monitoring). Funded under MAE Italy-Israel R&D Cooperation Program
- (2020-2022) **Project AI4Media** (A European Excellence Centre for Media, Society and Democracy)
- (2014 – 2016) **FP7 EU project VENTURI** (immersiVe ENhancemenT of User-world Interactions)
- (2008-2010) **Project ACube** (Ambient Aware Assistance) financed by the Autonomous Province of Trento
- (2008 – 2013) **FP6 EU project PASCAL2** (Pattern Analysis, Statistical Modelling and Computational Learning 2) Network of Excellence
- (2006 – 2009) **FP6 EU project AMIDA** (Augmented Multi-party Interaction)
- (2006 – 2009) **FP6 EU project SMART** (Statistical Multilingual Analysis for Retrieval and Translation)
- (2003 – 2008) **FP6 EU project PASCAL** (Pattern Analysis, Statistical Modelling and Computational Learning 2) Network of Excellence

## Teaching

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At University of Trento:

- 2020/2021 - MSc course “Deep Learning” (6 CFU)
- 2020/2021 - BSc course “Algoritmi Avanzati” (6 CFU)
- 2020/2021 - BSc course “Applied Machine Learning” (6 CFU)
- 2019/2020 - MSc course “Deep Learning” (6 CFU)
- 2019/2020 - BSc course “Algoritmi Avanzati” (6 CFU)
- 2019/2020 - BSc course “Teoria dei Sistemi” (6 CFU)
- 2018/2019 - MSc course “Deep Learning” (6 CFU)
- 2018/2019 - MSc course “Affective Computing” (6 CFU)
- 2018/2019 - BSc course “Teoria dei Sistemi” (6 CFU)
- 2018/2019 – Master in Autonomous Driving and Enabling Technologies, course “Deep Learning” (0.5 CFU)
- 2018/2019 – Master in Autonomous Driving and Enabling Technologies, course “Human Robot Interaction” (1 CFU)

## Publications

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**Journal papers:**

- [J1] S. Roy et al. Deep Learning for Classification and Localization of COVID-19 Markers in Point-of-Care Lung Ultrasound, IEEE Transaction on Medical Imaging, 2020.
- [J2] M. Mancini, L. Porzi, B. Caputo, E. Ricci, S. Rota Bulò, Boosting Binary Masks for Multi-Domain Learning through Affine Transformations, Machine Vision and Applications, 2020.

- [J3] F.M. Carlucci, L. Porzi, B. Caputo, E. Ricci, SR Bulo, *MultiDIAL: Domain Alignment Layers for (Multisource) Unsupervised Domain Adaptation*, IEEE Transactions on Pattern Analysis and Machine Intelligence (accepted), 2020.
- [J4] S. Cascianelli, G. Costante, F. Crocetti, E. Ricci, P. Valigi, M. Fravolini, *Data-based design of robust fault detection and isolation residuals via LASSO optimization and Bayesian filtering*, Asian Journal Of Control (accepted), 2020.
- [J5] D. Fontanel, F. Cermelli, M. Mancini, S. Rota Bulò, E. Ricci, B. Caputo, *Boosting Deep Open World Recognition by Clustering*. IEEE Robotics and Automation Letters, 2020.
- [J6] X. Alameda-Pineda, E. Ricci, Salah, N. Sebe, S. Yan. Special Issue on Generating Realistic Visual Data of Human Behavior. *International Journal Computer Vision* 128(5): 1376-1377, 2020.
- [J7] W. Wang, X. Alameda-Pineda, D. Xu, E. Ricci, N. Sebe. *Learning How to Smile: Expression Video Generation with Conditional Adversarial Recurrent Nets*, IEEE Transactions on Multimedia, 2020.
- [J8] D. Xu, E. Ricci, W. Ouyang, X. Wang, N. Sebe. Monocular Depth Estimation Using Multi-Scale Continuous CRFs as Sequential Deep Networks. *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)* 41(6): 1426-1440, 2019.
- [J9] A. Pilzer, S. Lathuilière, D. Xu, M. M. Puscas, E. Ricci, N. Sebe, Progressive Fusion for Unsupervised Binocular Depth Estimation using Cycled Networks. *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)*, 2019.
- [J10] M. Mancini, L. Porzi, S. Rota Bulò, B. Caputo, E. Ricci, Inferring Latent Domains for Unsupervised Deep Domain Adaptation, *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)*, 2019.
- [J11] A. Siarohin, G. Zen, C. Majtanovic, X. Alameda-Pineda, E. Ricci, N. Sebe. Increasing Image Memorability with Neural Style Transfer. *ACM Trans. Multim. Comput. Commun. Appl.* 15(2): 42:1-42:22, 2019.
- [J12] J. Varadarajan, R. Subramanian, S. Rota Bulò, N. Ahuja, O. Lanz, E. Ricci: Joint Estimation of Human Pose and Conversational Groups from Social Scenes. *International Journal of Computer Vision* 126(2-4):410-429, 2018.
- [J13] M. Mancini, S. Rota Bulò, B. Caputo, E. Ricci, Robust Place Categorization With Deep Domain Generalization. *IEEE Robotics and Automation Letters* 3(3): 2093-2100, 2018.
- [J14] D. Xu, X. Alameda-Pineda, J. Song, E. Ricci, N. Sebe: Cross-Paced Representation Learning With Partial Curricula for Sketch-Based Image Retrieval. *IEEE Trans. Image Processing* 27(9): 4410-4421, 2018.
- [J15] L. Porzi, S. Rota Bulò, A. Peñate-Sánchez, E. Ricci, F. Moreno-Noguer, "Learning Depth-aware Deep Representations for Robotic Perception", *IEEE Robotics and Automation Letters*, 2017.
- [J16] M. Mancini, S. Rota Bulò, B. Caputo, E. Ricci, Learning Deep NBNN Representations for Robust Place Categorization. *IEEE Robotics and Automation Letters* 3(3): 2093-2100, 2017.
- [J17] L. Porzi, S. Rota Bulò, O. Lanz, P. Valigi, E. Ricci, "An Automatic Image-to-DEM Alignment Approach for Annotating Mountains Pictures on a Smartphone", *Machine Vision and Applications (MVA)*, Mach. Vis. Appl. 28(1-2): 101-115, 2017.
- [J18] D. Xu, Y. Yan, E. Ricci, N. Sebe. "Detecting Anomalous Events in Videos by Learning Deep Representations of Appearance and Motion", *Computer Vision and Image Understanding (CVIU)*, 156: 117-127, 2017.
- [J19] Y. Yan, E. Ricci, G. Liu, O. Lanz, N. Sebe. "A Multi-task Learning Framework for Head Pose Estimation under Target Motion", *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)*, 2016.
- [J20] X. Alameda-Pineda, J. Staiano, R. Subramanian, L. M. Batrinca, E. Ricci, B. Lepri, O. Lanz, N. Sebe. "SALSA: A Novel Dataset for Multimodal Group Behavior Analysis". *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)*, 2016.
- [J21] G. Zen, L. Porzi, E. Sangineto, E. Ricci, N. Sebe. "Learning Personalized Models for Facial Expression Analysis and Gesture Recognition. *IEEE Trans. Multimedia* 18(4): 775-788, 2016.
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- [C2] W. Menapace, S. Lathuilière, E. Ricci, Learning to Cluster under Domain Shift, *European Conference on Computer Vision (ECCV)*, 2020.
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#### Books:

- [B1] **Editor:** X.Alameda-Pineda, E.Ricci, N.Sebe, "*Multimodal Behavior Analysis in the Wild*", Elsevier, 2018.

#### Chapters in books (invited):

- [BC1] X Alameda-Pineda, E Ricci, N Sebe, Multimodal analysis of free-standing conversational groups, *Frontiers of Multimedia Research*, 51-74, 2018
- [BC2] E. Ricci, Y. Yan, A. K. Rajagopal, R. Subramanian, R. L. Vieriu, O. Lanz, N. Sebe, Exploring Multitask and Transfer Learning Algorithms for Head Pose Estimation in Dynamic Multiview Scenarios. *Group and Crowd Behavior for Computer Vision*, 67-87, 2017.
- [BC3] X. Alameda-Pineda, R. Subramanian, E. Ricci, O. Lanz, N. Sebe, SALSA: A Multimodal Dataset for the Automated Analysis of Free-Standing Social Interactions. *Group and Crowd Behavior for Computer Vision*, 321-340, 2017.
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- [BC5] N. Cristianini, E. Ricci: Support Vector Machines. *Encyclopedia of Algorithms*, editor: Ming-Yang Kao, 2008.

#### Patents

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**US patent US20170367590A1.** *Self-adaptive matrix completion for heart rate estimation from face videos under realistic conditions.* **Inventors:** Niculae Sebe, Xavier Alameda-Pineda, Sergey Tulyakov, Elisa Ricci, Lijun Yin, Jeffrey F. Cohn.

#### Services

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#### Journals:

##### Associate Editor:

- *IEEE Transactions on Multimedia* (from 2014-ongoing)
- *IEEE Trans on Multimedia Computing Communications and Applications* (from 2018-ongoing)
- *IEEE Robotics and Automation Letters* (from 2018-ongoing)
- *Multimedia Systems (MMSJ)* (from 2019-ongoing)

##### Guest Editor:

- Special Issue "Generating Realistic Visual Data of Human Behavior", *International Journal of Computer Vision*
- Special Issue "Deep vs Shallow: Learning for Emerging Web-scale Data Computing and Applications", *World Wide Web journal*.
- Special Issue "Multimedia Technologies in Extreme Surveillance", *Multimedia Tools and Applications*

**Reviewer:** IEEE Transaction on Multimedia, IEEE Transaction on Pattern Analysis and Machine Intelligence, International Journal of Computer Vision, Computer Vision and Image Understanding, Machine Vision and Applications, Neural Processing Letters, IEEE Robotics and Automation Letters, Journal of Artificial Intelligence, IEEE Transaction on Neural Networks.

**Conferences:**

**Reviewer:** ICCV 2013-2019, CVPR 2014-2020, ACM Multimedia 2014-2015, NIPS 2010-2020, ECCV 2014-2020, ICMI-MLMI 2008-2016, ICMR 2017, ICRA 2015-2017, IROS 2010-2016, AISTATS 2016, ICIAP 2009-2015, EUSIPCO 2009-2011, ECML 2009, ICIAR 2012-2016, VISAPP 2012-2016.

**Membership:** Member of European Lab for Learning and Intelligent Systems (ELLIS), IEEE (Institute of Electrical and Electronics Engineers), CVPL (Associazione Italiana per la ricerca in Computer Vision, Pattern recognition e machine Learning), IAPR (International Association of Pattern Recognition), CINI Laboratory of Artificial Intelligence, Woman in Computer Vision association.

**Reviewer for Projects for the following institutions:** *Natural Sciences and Engineering Research Council (NSERC) Canada, Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) Romania, I-SITE ULNE France, Croatian Science Foundation.*

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