

PERSONAL INFORMATION

Massimo Tivoli



📍 Via Provinciale 23, 67019 Scoppito (AQ), Italy

☎ N/A 📞 +39 328 011 3365

✉ massimo.tivoli@univaq.it

🌐 <https://www.disim.univaq.it/MassimoTivoli>

Sex Male | Date of birth 27/08/1975 | Nationality Italian

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input checked="" type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

30/12/2021 - now

Full Professor in Computer Science

Dep. of Information Engineering, Computer Science and Mathematics, University of L'Aquila, Via Vetoio s.n.c., 67100 L'Aquila (AQ), Italy, <https://www.univaq.it>

- My research interests concern software engineering and are focused on the application of formal methods for the component-based development of distributed software systems. In particular, my research activities include the synthesis of software connectors/adapters/mediators and software services composition via the synthesis of orchestrations and choreographies.
- Teacher of Computers Architecture, Architecting Intelligent Systems, Business Processes Development.
- Leadership of the research group "Automated Software Synthesis" (ASoSy), of the Dep. of Information Engineering, Computer Science and Mathematics, University of L'Aquila.
- Vice-director of the Computer Science study programmes at the University of L'Aquila.
- Member of the Management Committee of the project "Rete Ottica Metropolitana per la P.A. e rete ottica sperimentale per la Città di L'Aquila - INCIPICT", D. R. 566/2015 – Funding: CIPE resolution no. 135 – 21.12.2012.
- Lead guest editor for JISA journal – <http://www.jisajournal.com>
- Member of "Collegio di Dottorato in INGEGNERIA E SCIENZE DELL'INFORMAZIONE (DOT13VJY7J)" – University of L'Aquila, from XXIX cycle to now.
- Member of "Giunta del Dipartimento di Ingegneria e Scienze dell'Informazione e Matematica (DISIM), Università dell'Aquila", as representative for the Bachelor Degree and Master Degree programme in Computer Science.

Academia

EDUCATION AND TRAINING

01-06-2005

PhD in Computer Science

Dep. of Computer Science, University of L'Aquila, Via Vetoio s.n.c., 67100 L'Aquila (AQ), Italy, <https://www.univaq.it>

- Software architectures, Component-based software engineering, Reuse-oriented development, software connectors, automated software synthesis

04-04-2001

Laurea cum laude in Computer Science

Dep. of Computer Science, University of L'Aquila, Via Vetoio s.n.c., 67100 L'Aquila (AQ), Italy, <https://www.univaq.it>

- Software architectures, Component-based software engineering, Reuse-oriented development, software connectors, automated software synthesis

PERSONAL SKILLS

Mother tongue(s)	Italian
Other language(s)	English
Job-related skills	Programming languages, operating systems, software engineering, software architectures, software connectors, automated software synthesis
Digital skills	Office suite, mobile apps, service-oriented systems, orchestration and choreography engines
Other skills	Smart cities and communities, Urban traffic coordination, Eco-driving systems, Smart tourism

ADDITIONAL INFORMATION

Publications The following is a list of the 15 most representative scientific publications of mine.

M. Autili, L. Chen, C. Englund, C. Pompilio, M. Tivoli (2021). Cooperative Intelligent Transport Systems: Choreography-based Urban Traffic Coordination. *IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS*, p. 1-12, ISSN: 1558-0016, doi: 10.1109/TITS.2021.3059394.

M. Autili, A. Perucci, L. Leite, M. Tivoli, F. Kon, A. Di Salle (2021). Highly collaborative distributed systems: Synthesis and enactment at work. *CONCURRENCY AND COMPUTATION*, vol. 33, p. 1-23, ISSN: 1532-0634, doi: 10.1002/cpe.6039.

M. Autili, A. Di Salle, F. Gallo, C. Pompilio, M. Tivoli (2020). CHOReVOLUTION: Service choreography in practice. *SCIENCE OF COMPUTER PROGRAMMING*, vol. 197, p. 1-11, ISSN: 0167-6423, doi: 10.1016/j.scico.2020.102498.

A. Marco, D. Di Ruscio, P. Inverardi, P. Pelliccione, M. Tivoli (2019). A software exoskeleton to protect and support citizen's ethics and privacy in the digital world. *IEEE ACCESS*, vol. 7, p. 62011-62021, ISSN: 2169-3536, doi: 10.1109/ACCESS.2019.2916203.

M. Autili, P. Inverardi, R. Spalazzese, M. Tivoli, F. Mignosi (2019). Automated Synthesis of Application-layer Connectors from Automata-based Specifications. *JOURNAL OF COMPUTER AND SYSTEM SCIENCES*, ISSN: 0022-0000, doi: <https://doi.org/10.1016/j.jcss.2019.03.001>.

M. Autili, P. Inverardi, M. Tivoli (2018). Choreography Realizability Enforcement through the Automatic Synthesis of Distributed Coordination Delegates. *SCIENCE OF COMPUTER PROGRAMMING*, vol. 160, p. 3-29, ISSN: 0167-6423, doi: <https://doi.org/10.1016/j.scico.2017.10.010>.

M. Autili, P. Inverardi, M. Tivoli (2015). Automated Synthesis of Service Choreographies. *IEEE SOFTWARE*, vol. 32, p. 50-57, ISSN: 0740-7459, doi: 10.1109/MS.2014.131.

M. Autili, P. Inverardi, P. Pelliccione, M. Tivoli (2012). Developing highly complex distributed systems: a software engineering perspective. *JOURNAL OF INTERNET SERVICES AND APPLICATIONS*, vol. 3, p. 15-22, ISSN: 1867-4828, doi: 10.1007/s13174-011-0048-5.

P. Pelliccione, A. Bucchiarone, A. Polini, M. Tivoli (2008). An architectural approach to the correct and automatic assembly of evolving component-based systems. *THE JOURNAL OF SYSTEMS AND SOFTWARE*, vol. 81, p. 2237-2251, ISSN: 0164-1212, doi: 10.1016/j.jss.2008.05.030.

M. Tivoli, P. Inverardi (2008). Failure-free coordinators synthesis for component-based architectures. *SCIENCE OF COMPUTER PROGRAMMING*, vol. 71, p. 181-212, ISSN: 0167-6423, doi: 10.1016/j.scico.2008.03.001.

M. Autili, L. Mostarda, A. Navarra, M. Tivoli (2008). Synthesis of decentralized and concurrent adaptors for correctly assembling distributed component-based systems. *THE JOURNAL OF SYSTEMS AND SOFTWARE*, vol. 81, p. 2210-2236, ISSN: 0164-1212, doi: 10.1016/j.jss.2008.04.006.

M. Kerholm, J. Carlson, J. Fredriksson, H. Hnsson, J. Hakansson, A. Mller, P. Pettersson, Tivoli M. (2007). The SAVE approach to component-based development of vehicular systems. *THE JOURNAL OF SYSTEMS AND SOFTWARE*, vol. 80, p. 655-667, ISSN: 0164-1212, doi: 10.1016/j.jss.2006.08.016.

P. Inverardi, M. Tivoli (2003). Deadlock-free software architectures for COM/DCOM Applications. *THE JOURNAL OF SYSTEMS AND SOFTWARE*, vol. 65, p. 173-183, ISSN: 0164-1212, doi: 10.1016/S0164-1212(02)00037-7.

P. Inverardi, M. Tivoli (2013). Automatic Synthesis of Modular Connectors via Composition of Protocol Mediation Patterns. In: Proc. of the 35th International Conference on Software Engineering (ICSE 2013). p. 3-12, Piscataway (NJ): IEEE, ISBN: 978-1-4673-3076-3, United States., May 18th - 26th, 2013, doi: 10.1109/ICSE.2013.6606546.

A. Bertolino, P. Inverardi, P. Pelliccione, M. Tivoli (2009). Automatic synthesis of behavior protocols for composable web-services. In: Proc. of the 7th joint meeting of the European Software Engineering Conference and the ACM SIGSOFT International Symposium on Foundations of Software Engineering (ESEC/FSE 2009). p. 141-150, NEW YORK, NY, USA.:ACM, ISBN: 978-1-60558-001-2, Amsterdam, August 24-28, 2009, doi: 10.1145/1595696.1595719.