

# Curriculum Vitae

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# Anna Paola Marconi

15 December 2015

### Personal Data

- **Born in** , on the . nationality.
- **Current employee status:** Head of Unit – Distributed Adaptive Systems (DAS) Unit within Fondazione Bruno Kessler (FBK) Research Institute. Starting date: January 2015.
- **Current office address:** FBK first via Sommarive 18, 38123 Povo, TN, Italy.  
WWW: <http://das.fbk.eu/marconi>  
LinkedIn: <http://www.linkedin.com/in/annapaolamarconi>

### Academic Resume

- **April 2008: Phd Thesis.**  
ICT International Doctorate School, DISI, Università degli Studi di Trento.  
Thesis Title: *Automated Process-level Composition of Web Services: from Requirements Specification to Process Run.*  
Advisor: Dott. Paolo Traverso, FBK-irst.  
Co-advisor: Prof. Marco Pistore, FBK-irst.
- **December 2002: Laurea in Informatica** (Master of Science).  
Department of Computer Science, University of Milan, Italy. A five-year exam program, with a final grade of **110/110 cum Laude**.  
Thesis Title: *Studio e realizzazione di un sistema di supporto alla reingegnerizzazione dei processi aziendali: gestione delle competenze e supporto all'assegnamento delle risorse umane.*  
Advisor: Prof. Elisa Bertino, DSI - University of Milan, Italy.  
Co-advisor: Dott. Marco Argilli, TXT e-Solution S.p.A.

## Professional Experience

- **January 2015 – NOW:** Head of Distributed Adaptive Systems Unit (<http://das.fbk.eu>) within Fondazione Bruno Kessler research institute (<http://fbk.eu>).
- **November 2007 – December 2014:** Researcher in the Service Oriented Applications (SOA) group within the Institute for Scientific and Technological Research Fondazione Bruno Kessler (FBK-irst).
- **November 2004 – October 2007:** Ph.D. student at the Division of Automated Reasoning Systems (SRA) of ITC-Irst under the supervision of P. Traverso and M. Pistore, within the International Doctorate School in Information and Communication Technologies (University of Trento).
- **July 2003 – December 2004:** Research Assistant at the Division of Automated Reasoning Systems (SRA) of ITC-Irst, within the research project ASTRO (Supporting the Composition of Distributed Business Processes).
- **January 2003 – June 2003:** consultant at the SC&CM (Supply Chain & Customer Management) division of TXT e-Solution s.p.A. (Milan). Development of *MyPlan*, a web-based application supporting the multi-project planning, scheduling and execution.
- **February 2002 – December 2002:** stage at the R&D (Research and Development) division of TXT e-Solution s.p.A. (Milan) within the European research project *INSPIRE* (Intelligent Support for People Oriented Process Re-Engineering and Change Management).

## Research Projects

- **STREETLIFE**, EU Smart Cities FP7 Project  
<http://streetlife-project.eu>  
**Role: Scientific Coordinator**  
The goal of the STREETLIFE project is the reduction of carbon emissions through a sustainable mobility concept in cities based on ICT. In particular, the aim of the project is to reduce the number of car trips by i) informing commuters about the existing transport alternatives and their real value (in terms of time, cost, carbon footprint), ii) enhancing public transport to meet the needs of the citizens and of the city, iii) promoting the usage of sustainable transports through (virtual or real) incentives.
- **ALLOW Ensembles**, EU FET within the 7th Framework Programme  
<http://www.allow-ensembles.eu>  
The recent advances in pervasive technologies enable construction of large-scale socio-technical systems which tightly interweave humans and their social structures with technology. The overall goal of Allow Ensembles is to develop a new design principle and establish a new foundational framework for collective adaptive systems (CAS) based on the concept of cell ensembles.  
Duration: Feb 1st 2013 – Jan 31st 2016.
- **Smart Campus Project**, Trento-RISE Innovation Project  
<http://www.smartcampuslab.it>  
SmartCampus provides advanced ICT solutions to catalyze the creativity and enthusiasm of all people and institutions of the campus, and to produce innovative services designed to support everyday individual and social life and ease the operation of the campus.  
Duration: March 1st 2012 – Dec 31st 2014.
- **HCI Technologies for the Digital World**, EIT ICT Labs Activity  
The "Intelligent Services for Digital Cities" activity will be organized around a summer school/camp in 2013. The summer school aims at bringing students, researchers, industrial partners as well as municipalities together. The main idea is to use the technologies developed in the scope of the carrier projects and let student groups create ideas and proposals for new innovative services under supervision of industry, research and receiving the requirements direct from the municipalities. The best solutions will be transferred into

products or open source applications.  
Duration: Jan 1st 2013 – Dec 31st 2013.

- **HCI Technologies for the Digital Cities**, EIT ICT Labs Activity  
This activity aims at identifying and selecting the most innovative HCI technologies that are now under development in various European Labs. Such a unique opportunity to combine different technologies will demonstrate how people can interact with a digital city of the future. The funding provided by EIT will enable access to the testbeds and living labs to the leading European firm (SAP), universities, and research organizations. It will provide glue for exchange of ideas, experiences, and know how that are usually constrained by co-funded national projects.  
Duration: Jan 1st 2012 – Dec 31st 2012.
- **eTerritory**, Trento-RISE EIT Carrier Project  
The objective of eTerritory is to investigate a territorial platform that facilitates the massive delivery of services to citizens, tourists, business and government, exploiting all the different systems that contribute to a territory, and answering to the wide range of needs of the territory.  
Duration: March 1st – Dec 31st 2012.
- **S-Cube**, EU Network of Excellence (NoE) within the 7th Framework Programme.  
<http://www.s-cube-network.eu>  
S-Cube (Software Services and Systems) is a Network of Excellence funded by EU within the context of the 7th Framework Programme. S-Cube is coordinated by University of Duisburg-Essen, and sees the cooperation of 15 partners from 11 European countries. The goal of S-Cube is to establish a unified, multidisciplinary, vibrant research community which will enable Europe to lead the software-services revolution, helping shape the software-service based Internet which is the backbone of our future interactive society.  
Duration: March 1st 2008 – Feb 29th 2012.
- **ALLOW - Adaptable Pervasive Flows**, EU FET within the 7th Framework Programme  
<http://www.allow-project.eu/>  
The objective of the project was to develop a new programming paradigm for human-oriented pervasive applications. This paradigm enables pervasive technical systems to adapt automatically and seamlessly to humans involved and embedded in them, explicitly supporting people in achieving well-defined goals in dynamically changing environments and contexts. The key concept developed within the project in order to realize these objectives is called Adaptable Pervasive Flow (APF). A flow consists of a set of actions that is glued together by an execution plan in order to achieve a goal under a set of constraints. APFs extend this concept by situating flows in the real world and attaching them to entities like artifacts or people, by let them moving through different contexts, and by allowing them to adapt to these different contexts. The project will investigate new mechanisms, methods, and principles for adaptable flow-based pervasive applications and will develop a suitable programming paradigm for this framework.  
Duration: Feb 1st 2008 – Jul 31st 2011.
- **SLA@SOI: Empowering the service industry with SLA-aware infrastructures**, EU IP Project within the 7th Framework Programme.  
<http://sla-at-soi.eu/>  
The challenge addressed by this project was the need for a service-oriented infrastructure (SOI) that supports consistent SLA management across the various perspectives of the stakeholders involved in a given application, across all layers of an IT stack, and across multiple non-functional domains such as security, performance, availability, reliability. The concept of this project was a systematic grounding of SLAs from the business level down to the physical infrastructure. This way, SLAs can be ultimately enforced or at least automatically adjusted at the lowest possible level, namely the physical infrastructure, and can also be managed along complete service value chains involving various different providers.  
Duration: Jun 1st 2008 – Jul 31st 2011.
- **ASTRO** (Supporting the Composition of Distributed Business Processes).  
<http://astroproject.org>

ASTRO is a research project in the field of web services and service-oriented applications, with a focus on the integration of business processes that are distributed among the most disparate entities. ASTRO addresses one of the major challenges for industry-wide adoption of Web services: the automated composition of distributed business processes, i.e. the development of technology, methods and tools that support an effective, flexible, reliable, easy-to-use, low-cost, and time-efficient composition of electronic distributed business processes.

## Awards

- Best Paper Award, ICWS 2012: A. Bucchiarone, A. Marconi, M. Pistore, H. Raik, *Dynamic Adaptation of Fragment-based and Context-aware Business Processes*
- Services CUP Winner, SERVICES 2012: H. Raik, A. Bucchiarone, N. Khurshid, A. Marconi, and M. Pistore. *ASTRO-CAptEvo: Dynamic Context-aware Adaptation for Service-based Systems*.
- Best PhD Presentation, SEEFM 2007: A. Marconi, M. Pistore, and P. Traverso, *An Iterative Approach for the Process-level Composition of Web Services*.

## Publications

For a complete list of publications please refer to: [Annapaola Marconi - GoogleScholar](#) .

Selected publications:

- A. Bucchiarone, M. De Sanctis, A. Marconi, M. Pistore, P. Traverso, Design for Adaptation of Distributed Service-Based Systems, *ICSOC 2015, International Conference on Service Oriented Computing*, pp. 383-393, 2015, Springer Berlin Heidelberg
- R. Kazhamiakin, A. Marconi, M. Perillo, M. Pistore, G. Valetto, L. Piras, F. Avesani, N. Perri, Using gamification to incentivize sustainable urban mobility, *IEEE International Smart Cities Conference (ISC2), 2015*
- Matteo Gerosa, Annapaola Marconi, Marco Pistore, Paolo Traverso, An Open Platform for Children's Independent Mobility, *4th International Conference on Smart Cities, Green Technologies, and Intelligent Transport Systems*, pp. 50-71, SMARTGREENS 2015, Lisbon, Portugal, May 20-22, 2015
- A. Bucchiarone, A. Marconi, M. Pistore, H. Raik, Dynamic Adaptation of Fragment-based and Context-aware Business Processes, *ICWS 2012*, pp. 33- 41 - *IEEE 19th International Conference on Web Services, Honolulu, Hawaii, USA. Best Paper Award*
- H. Raik, A. Bucchiarone, N. Khurshid, A. Marconi, and M. Pistore. *ASTRO-CAptEvo: Dynamic Context-aware Adaptation for Service-based Systems. IEEE 8th World Congress on Services - SERVICES 2012, 2012, (Services, Honolulu, Hawaii). Services CUP Winner*
- A. Marconi, A. Bucchiarone, K. Bratanis, A. Brogi, J. Camara, D. Dranidis, H. Giese, R. Kazhamiakin, R. de Lemos, C. Cassales Marquezan, A. Metzger, Research Challenges on Multi-layer and Mixed-Initiative Monitoring and Adaptation for Service-Based Systems, *2012*, pp. 40- 46 - *First International Workshop on European Software Services and Systems Research - Results and Challenges (S-Cube), Zurich, Switzerland*
- A. Bucchiarone, A. Marconi, M. Pistore, H. Raik, CAptEvo: Context-aware Adaptation and Evolution of Business Processes, *ICSOC 2011, The Ninth International Conference on Service Oriented Computing , Paphos, Cyprus*

- S. Guinea, G. Kecskemeti, A. Marconi, B. Wetzstein, Multi-layered Monitoring and Adaptation, *2011, 9th International Conference on Service Oriented Computing, Paphos, Cipro*
- A. Sirbu, A. Marconi, M. Pistore, H. Eberle, F. Leymann, T. Unger, Dynamic Composition of Pervasive Process Fragments, *Proceedings of the 9th IEEE International Conference on Web Services, IEEE Computer Society, 2011, pp. 73- 80 - 9th IEEE ICWS, Washington DC, USA.*
- A. Bucchiarone, A. Marconi, M. Pistore, S. Foll, K. Hermann, C. Hiesinger, S. Marinovic, An Overall Process for Self-Adaptive Pervasive Systems, *ADAPTIVE 2010, pp. 40- 46 - The Second International Conference on Adaptive and Self-Adaptive Systems and Applications, Lisbon, Portugal.*
- Annapaola Marconi, Marco Pistore, Adina Sirbu, Hanna Eberle, Frank Leymann, Tobias Unger. Enabling Adaptation of Pervasive Flows: Built-in Contextual Adaptation. *Proceedings of the 7th International Joint Conference on Service Oriented Computing (ICSOC'09), 2009.*
- A Marconi, M Pistore, and P Traverso. Automated composition of web services: the ASTRO approach. *IEEE Data Eng. Bull 31 (3), 23-26, 2008.*
- Marconi, M. Pistore, P. Poccianti, and P. Traverso. Automated Web Service Composition at Work: the Amazon/MPS Case Study. Paper in *Proc. of IEEE 2007 International Conference on Web Services (ICWS07)*, 9-13 July 2007, Salt Lake City, Utah, USA.
- A. Marconi, M. Pistore, and P. Traverso. Implicit vs. Explicit Data-Flow Requirements in Web Service Composition Goals. Short Paper in *Proc. of Fourth International Conference on Service Oriented Computing (ICSOC06)*, December 4-7 2006, Chicago, USA.
- A. Marconi, M. Pistore, and P. Traverso. Specifying Data-Flow Requirements for the Automated Composition of Web Services. In *Proc. of Fourth IEEE International Conference on Software Engineering and Formal Methods (SEFM06)*, 11 - 15 September 2006, Pune, India.
- M. Pistore, A. Marconi, P. Bertoli, and P. Traverso. Automated Composition of Web Services by Planning at the Knowledge Level. In *Proc. of Nineteenth International Joint Conference on Artificial Intelligence (IJCAI05)*, 30 July - 5 August 2005, Edinburgh, Scotland.
- M. Pistore, P. Traverso, P. Bertoli, and A. Marconi. Automated Synthesis of Composite BPEL4WS Web Services. In *Proc. of International Conference on Web Services 2005 (ICWS05)*, July 11-15 2005, Orlando, Florida, USA.

## Teaching Experiences

- *Academic year 2007/2008:* Co-teacher of the course Application integration and Business Process Management within the Professional Master in Technologies for E-Government of the University of Trento.
- *Academic year 2007/2008:* Assistant teacher of the course Mathematical Logic within the Computer Science Department of the University of Trento. The course is addressed both to MS and PhD students.
- *Academic year 2006/2007:* Assistant teacher of the course Mathematical Logic within the Computer Science Department of the University of Trento. The course is addressed both to MS and PhD students.
- *Academic year 2005/2006:* Assistant teacher of the course Mathematical Logic within the Computer Science Department of the University of Trento. The course was addressed both to MS and PhD students.
- *Academic year 2005/2006:* Assistant teacher of the course Web Languages within the Computer Science Department of the University of Trento. The course was addressed both to MS and PhD students.
- *Academic year 2004/2005:* Assistant teacher of the course Informatica Generale II (Algorithms and Data Structures) within the Engineering Department of the University of

Trento.

## **Other skills**

### **Natural Languages**

- Italian: mother tongue.
- English: fluent.