

# CURRICULUM VITAE

DR. MARCO FARGETTA

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## ADDRESS

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## PERSONAL DETAILS

Gender: Male  
Birthday: 28 Dicembre, 1976

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## EDUCATION

01/11/2003–02/03/2007 Ph.D. Student at *University of Catania* in Catania, Italy

Thesis title: *A Model for Automatically Supporting Advanced Reservation, Allocation and Pricing in a Grid Environment*;

*Details:* My Ph.D. studies focus on resource management in a Grid environment. I have been investigating systems for advance reservation of resources and together with the people I work with we have proposed an architecture, called STREGA, for transparently reserve and allocate resources in a Grid environment [6, 8]. In STREGA, resources needed by applications are automatically detected, and operations such as resource reservation and allocation are accordingly transparently performed e.g. using Globus services.

Supervisor: Prof. Ing. A. Di Stefano

16/01/2006–14/07/2006 Visitor Research assistant at *University of Manchester, Department of Computer Science*, Manchester, UK

*Details:* I have visited the University of Manchester in the context of my Ph.D. activities. During the visit I worked on a new infrastructure for resource reservation able to speed-up the negotiation and the agreement between the resource provider and the end user. A prototype of the infrastructure was developed as a plug-in to UniGrids Resource Broker and results of this work are been submitted to eScience2006 conference.

Supervisor: Dr. Dean Kuo

08/2005 Attendance to the *GII - Scuola di Dottorato 2005* (Italian PhD school), Siena, Italy

07/2004 Attendance to the *2nd International Summer School on Grid Computing*, Vico Equense (Naples), Italy

10/2002 Degree in Computer Engineering for Systems and Applications at the University of Catania, Catania, Italy  
Marks: 110/110  
Major in: Informatics Systems and Application  
Title of the Laurea Thesis: *Una integrazione ad OpenJIT che estende Java con la riflessione comportamentale (An OpenJIT integration that extends Java with behavioural reflection)*  
Supervisor: Prof. Ing. A. Di Stefano.

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## WORKING EXPERIENCE

01/05/2010–31/10/2010 Staff member of INFN (Istituto Nazionale di Fisica Nucleare) Catania, working in the context of the project “*INFN Grid*”.

The activity manager for the project is the prof. Roberto Barbera.

*Details:* The INFN Grid project is the general container used by INFN to develop and deploy the Grid middleware services which allow its various user communities to transparently and securely share the computing and storage resources together with the applications and technical facilities, available in the different administrative domains of the various Institutions and geographical sites.

Within INFN Grid I was involved in different tasks. These include the writing of documents for different projects involving the Catania site. Additionally, I have performed training activity in relation with the EPIKH project and, finally, I was involved with the preliminary sketch of new service for Grid resource reservation.

04/03/2009–03/04/2010 Collaboration work, with INFN (Istituto Nazionale di Fisica Nucleare) Catania, in the context of the project “*EUAsiaGrid*”.

The activity manager for the project is the prof. Marco Paganoni.

*Details:* The project aims to capitalise the European investments made in the area of Grid computing by promoting the developed Grid infrastructures in Asia.

Within the project I was responsible for the training activities (Work Package 5). In more detail, this position involves the organisation of special training events in Asia with the goal of transfer the basic Grid concept and encourage local communities to move their activities inside the European Grid infrastructures.

07/01/2009–07/03/2009 Collaboration work with Full Company s.r.l..

*Details:* During the collaboration I was involved into the development and improvement of several modules for an airways management software system. The modules were related both to the fly and revenue management for the company, and to the reservation system for the passengers.

Moreover, I developed a management software to handle the travel agencies information for the Full Company network related to a low cost fly ticketing system.

The development was WEB oriented and the main involved technologies were PHP and MySQL.

01/03/2008–31/10/2008 Collaboration work with consortium *COMETA (CO*nsorzio *M*ulti *E*nte *per l'adozione di Tecnologie di calcolo Avanzato*) for the project “*Progetto per l'Implementazione e lo Sviluppo di una e-Infrastruttura in Sicilia basata sul paradigma della grid (pi2s2)*”. I was operating for the INFN (Istituto Nazionale di Fisica Nucleare) partner in Catania.

The activity manager for COMETA is prof. R. Barbera.

*Details:* Within the project I was involved in the design, development and support of gLite add-on to interface MPI applications with the Grid infrastructure managed by the consortium. Moreover, in the context of this activity I was involved as tutor in the following events:

- International Summer School on Grid Computing 2008 (ISSGC'08), Balatonfüred, Hungary (<http://www.iceage-eu.org/issgc08/index.cfm>)

01/03/2007–29/02/2008 Collaboration work, with the faculty of Physics and Astronomy of the University of Catania, in the context of the project “*The International Collaboration to Extend and Advance Grid Education - ICEAGE*”.

The head of the project in the faculty is prof. R. Barbera.

*Details:* Within the project I was involved in the design and development of the training infrastructure for whom want learn the Grid technologies. Main feature of the infrastructure developed is the Multi Middleware approach that consist in the contemporary use of different middleware in the same infrastructure. Moreover, in the context of ICEAGE I was involved as tutor in the following events:

- International Summer School on Grid Computing 2007 (ISSGC'07), Mariefred, Sweden (<http://www.iceage-eu.org/issgc07/index.cfm>)
- International Winter School on Grid Computing 2008 (IWSGC'08), on-line (<http://www.iceage-eu.org/iwsgc08/index.cfm>)

10/2007–12/2008 Collaboration with Gesind s.r.l., an Italian chemical laboratory, aims to create a web site for their customer (<http://www.gesindsrl.it>).

*Details:* The activity was concentrated to set-up a Joomla CMS with the required structure and the provided graphic elements. Additionally, a Joomla module has been developed to fulfil the requirements

06/12/2006–15/02/2007 Collaboration work, with the faculty of Computer Science of the University of Catania, in the context of the project “*Trinacria Grid Virtual Laboratory - TriGrid VL*”.

The head of the project in the faculty of Computer Science is prof. G. Pappalardo.

*Details:* Within the project I was involved in the design and development of software supporting the resource management in Grid environment.

10/2005–12/2005 Teaching a basic computer knowledge course organised by the pharmacist society in Catania, Italy.

06/2004–12/2004 Teaching a Internetworking course organised by the Sicilian Region.

10/2003–10/2004 Tutor for the Operating System course at the University of Catania, faculty of Computer Engineering.

*Details:* During the course I helped students during the laboratory sessions to develop programs on Linux operating system.

- 01/2003–03/2003 Development of an application for a Data Center  
*Details:* Development of an application that analyses and elaborates administrative data for medical centres. The application was developed in *Delphi* for *Windows*.
- 04/2003–05/2003 Collaboration with *Neotek*, a software house in Catania.  
*Details:* Development of some modules of a software for data management in *Visual Basic*.
- 05/2003–01/2004 Collaboration work for the project “*Middleware per servizi evoluti su sistemi distribuiti wired-wireless di grandi dimensioni*” (“*Middleware for enhanced services for wired-wireless large scale systems*”). Head of the project in the faculty of Computer Engineering prof. A. Di Stefano.  
*Details:* Within the project I was involved in the development of a reflective middleware for distributed systems. The aims of the middleware were: (a) transforming a centralised application into a distributed one, and (b) transparently spreading its parts on a computer network. The middleware was developed in *Java* and the provided facilities address *Java* applications.
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## COMPUTER SKILLS

**Programming Language:** Good experience with Java and C/C++.

Able to work with ObjectiveC, Visual Basic, PHP, HTML, JavaScript, shell script Unix.

Some experience with Assembly for x86 e PPC.

**Operating Systems:** Good experience at University and Working level with Unix and Unix-like (Linux, Mac OS X, Solaris) Operating System.

Limited knowledge about Windows as a developer.

**Development tools and applications:** Knowledge of the main open source tools (gcc, make, eclipse, apache, tomcat, mysql, iptables, etc...), Visual Studio 6 (on Windows) and Xcode (on Mac OSX); Joomla CMS (v. 1.5) and the application portal (portlet container) Liferay; the application server Glassfish.

**Other:** Knowledge about distributed systems (RMI, Jini, Web Services, etc...) and Grid Computing (related to the most relevant middleware such as gLite, Globus, UNICORE, OMII-UK, etc.). Reflective and aspect oriented programming.

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## PUBLICATIONS

1. M. Fargetta, D. Scardaci and R. Barbera. GILDA Status and Recent Activities in Grid Training. In *Managed Grids and Cloud Systems in the Asia-Pacific Research Community*, pages 311-322, 2010. Editor Simon C. Lin and Eric Yen. Springer US.
2. C. M. Iacono-Manno, M. Fargetta, R. Barbera, A. Falzone, G. Andronico, S. Monforte, A. Muoio, R. Bruno, P. Di Primo, S. Orlando, E. Leggio, A. Lombardo, G. Passaro, G. De Francisci-Morales and S. Blandino. The Sicilian Grid Infrastructure for High Performance Computing. In *International Journal of Distributed Systems and Technologies*, pages 40-54, volume 1, 2010. Published by IGI Global.
3. G. Andronico, R. Barbera, M. Fargetta, E. Giorgio, M. S. Pappalardo, D. Scardaci. Sustainable and Interoperable e-Infrastructures for Research and Business. In book *Grid Technology*

*for Maximizing Collaborative Decision Management and Support: Advancing Effective Virtual Organizations*, editor Dr Nik BESSIS, University of Bedfordshire, UK. IGI Global, 2009.

4. R. Barbera, M. Fargetta, E. Giorgio. Multiple Middleware Co-existence: Another Aspect of Grid Interoperation. In *eScience 2007*, IEEE Computer Society, Bangalore, India, 10-13 December, 2007.
5. M. Fargetta, E. Nicosia. The Agreement Utopia. In *Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE'07)*, IEEE Computer Society, Paris, France, 2007.
6. A. Calanducci, C. Cherubino, L. N. Ciuffo, M. Fargetta, D. Scardaci. A Digital Library Management System for Grid. In *Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE'07)*, IEEE Computer Society, Paris, France, 2007.
7. M.Fargetta, D. Fellows, D. Kuo. Extending a Resource Broker for Advance Reservation and Charging. In *eScience 2006*, IEEE Computer Society, Amsterdam, Netherlands, 4-6 December, 2006.
8. A. Di Stefano, M. Fargetta, G. Pappalardo, E. Tramontana. Supporting Resource Reservation and Allocation for Unaware Applications in Grid Systems. In *Concurrency and Computation: Practice and Experience*, pages 851-863, volume 18, 2006. Copyright ©2005 John Wiley & Sons, Ltd.
9. A. Di Stefano, M. Fargetta, G. Pappalardo, E. Tramontana. Metrics for Evaluating Concern Separation and Composition. In *SAC '05: Proceedings of the 2005 ACM Symposium on Applied computing*, ACM Press, pages 1381, Santa Fe, USA, 2004.
10. A. Di Stefano, M. Fargetta, G. Pappalardo, E. Tramontana. STREGA: A Support for Transparently Handling Resources for Grid Applications. In *Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE'04)*, IEEE Computer Society, pages 249, Modena, Italy, 2004.
11. A. Di Stefano, M. Fargetta, G. Pappalardo, E. Tramontana. Separating Soft Real-Time from Functionality Concerns in Complex Object-Oriented Applications. In *On The Move to Meaningful Internet Systems 2004: OTM 2004 Workshops*, volume 2889 of Lecture Notes in Computer Science (LNCS), pages 437 - 450, Cypro, 2004.
12. A. Di Stefano, M. Fargetta, E. Tramontana. Computational Reflection for Embedded Java Systems. In *On The Move to Meaningful Internet Systems 2003: OTM 2003 Workshops*, volume 2889 of Lecture Notes in Computer Science (LNCS), pages 437 - 450, Catania, Italy, 2003.

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## LANGUAGE KNOWLEDGE

<b>Italian</b>	native
<b>English</b>	good

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## REFEREE

These people are familiar with my activity and my character:

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Professor

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Catania, July 13, 2011