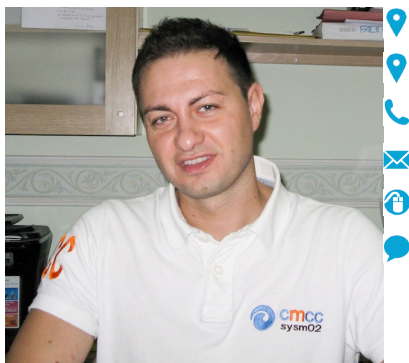


PERSONAL INFORMATION **Mauro Tridici**



WORK EXPERIENCE

<ul style="list-style-type: none"> • Period (from - to) • Name of employer • Company or work sector • Main activities and responsibilities 	<p>From 12/31/2015 to date (please note the date format: MM/DD/YYYY)</p> <p>CMCC – Centro euro-Mediterraneo sui Cambiamenti Climatici IT sector - High Performance Computing Senior Research Associate – HPC System Manager</p> <p>Main planned activities:</p> <ul style="list-style-type: none"> • maintenance and operational management of the HPC systems hosted at CMCC Supercomputing Center, with particular attention to the storage, backup and space management systems (and services) related to the CMCC HPC supercomputers Calypso and Athena (IBM Tivoli Storage Manager for Backup-Archive and Space Management System) • backup management of the data center virtual infrastructure and data protection management of the CMCC web and mail servers contents; • implementation, maintenance and operational management of the virtual infrastructure of the data center (built on the VMware platform, Oracle VirtualBox, KVM, OpenNebula etc.); • implementation, maintenance and operational management of a software defined storage infrastructure based on GlusterFS; • implementation, maintenance and operational management of the high performance data delivery services (Data Transfer Nodes based on GridFTP, HPN-SSH, FTP and so on • implementation and operational management of network security and monitoring services (Host Intrusion Detection Systems, Vulnerability Scan, etc...).
<ul style="list-style-type: none"> • Period (from - to) • Name of employer • Company or work sector • Main activities and responsibilities 	<p>From 05/20/2015 to 12/31/2015 (please note the date format: MM/DD/YYYY)</p> <p>CMCC – Centro euro-Mediterraneo sui Cambiamenti Climatici IT sector - High Performance Computing GEMINA Project</p> <p>Main planned activities:</p> <ul style="list-style-type: none"> • maintenance and operational management of the HPC systems hosted at CMCC Supercomputing Center, with particular attention to the storage, backup and space management systems (and services) related to the CMCC HPC supercomputers Calypso and Athena (IBM Tivoli Storage Manager for Backup-Archive and Space Management System) • backup management of the data center virtual infrastructure and data protection management of the CMCC web and mail servers contents; • implementation, maintenance and operational management of the virtual infrastructure of the data center (built on the VMware platform, Oracle VirtualBox, KVM, OpenNebula etc.).
<ul style="list-style-type: none"> • Period (from - to) 	<p>From 01/22/2015 to 04/30/2015</p>

<ul style="list-style-type: none"> • Name of employer • Company or work sector • Main activities and responsibilities 	<p>CMCC – Centro euro-Mediterraneo sui Cambiamenti Climatici</p> <p>IT sector - High Performance Computing</p> <p>TESSA Project - Development of technologies for the “Situational Sea Awareness”</p> <p>Support to publication and dissemination of scientific data in relation to the WP3 "Data Repository Dedicated System":</p> <ul style="list-style-type: none"> • Management and maintenance of the hardware infrastructure and software environment (environment based on virtual machines) dedicated to the Data Access Service and Metadata Service provided by the TESSA project; • Operational support to the CDAM service related activities (backup, security, networking and so on).
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<ul style="list-style-type: none"> • Period (from - to) 	From 12/01/2014 to 12/31/2014
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<ul style="list-style-type: none"> • Name of employer • Company or work sector • Main activities and responsibilities 	<p>CMCC – Centro euro-Mediterraneo sui Cambiamenti Climatici</p> <p>IT sector - High Performance Computing</p> <p>IS-ENES2 Project: “Infrastructure for the European Network for Earth System modelling - Phase 2 IS-ENES2” within VII° Programma Quadro</p> <p>"Contribution to the IS-ENES2 Data Networking about core data services", regarding Work Package 5: "Data Networking".</p> <p>"Analysis and review of terms of use for data access in IS-ENES2 infrastructure with particular reference to the CORDEX data".</p>
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<ul style="list-style-type: none"> • Period (from - to) 	From 04/01/2014 to 11/30/2014
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<ul style="list-style-type: none"> • Name of employer • Company or work sector • Main activities and responsibilities • Additional activities 	<p>CMCC – Centro euro-Mediterraneo sui Cambiamenti Climatici</p> <p>IT sector - High Performance Computing</p> <p>Project: “EU-Brazil Cloud infrastructure Connecting federated resources for Scientific Advancement” (EUBrazilCC), within the VII Programma Quadro;</p> <p>GEMINA Project;</p> <p>ORIENTGATE Project: “a structured network for integration of climate knowledge into policy and planning”</p> <p>Management and Development Support to systems monitoring and CMCC HPC systems upgrading activities. Implementation of a software infrastructure dedicated to data archiving.</p> <p>GEMINA Project planned activities related to action A.2.19 “Coordination of Supercomputing Center and optimization of resources utilization ”:</p> <ul style="list-style-type: none"> • Administration and Management of CMCC SCC Storage and Computing Infrastructure with particular attention to backup/HSM system. • Development of a centralized monitoring system in order to monitor all resources and services of CMCC SCC. • P105 product contribution: “Versione finale del sistema integrato per il monitoraggio delle risorse e dei servizi disponibili presso il Centro di Calcolo”.
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ORIENTGATE Project planned activities:

Design and implementation of ORIENTGATE data management platform. The objectives include: support to the management, on the data platform, of climate models datasets related to WP3, as well as to WP4, WP5 and WP6; update and maintenance of all services implemented on the data platform on a VM-based environment; preparation of deliverables related to project planned activities.

EU-Brazil Project planned activities:

Implementation of a dedicated platform for scientific testing for the European and Brazilian research communities.

The goal is to ensure the availability of production infrastructure to support the execution of the services provided by WP4, the implementation of the use cases of WP5 and the user support for the team of WP4 and WP5 regarding the WP3 executive project.

<ul style="list-style-type: none"> • Period (from - to) 	From 08/01/2013 to 03/31/2014
<ul style="list-style-type: none"> • Name of employer • Company or work sector 	<p>CMCC – Centro euro-Mediterraneo sui Cambiamenti Climatici</p> <p>IT sector - High Performance Computing</p> <p>EU-Brazil Project: "EU-Brazil Cloud infrastructure Connecting federated resources for Scientific Advancement" (EUBrazilCC), within the VII Programma Quadro;</p> <p>GEMINA Project.</p>
<ul style="list-style-type: none"> • Main activities and responsibilities • Additional activities 	<p>Management and Development support to systems monitoring and CMCC HPC systems upgrading activities. Implementation of a software infrastructure dedicated to data archiving.</p> <p>GEMINA Project planned activities related to action A.2.19 "Coordination of Supercomputing Center and optimization of resources utilization":</p> <ul style="list-style-type: none"> • Administration and Management of CMCC SCC Storage and Computing Infrastructure with particular attention to backup/HSM system. • Development of a centralized monitoring system in order to monitor all resources and services of CMCC SCC. • P105 product contribution: "Versione finale del sistema integrato per il monitoraggio delle risorse e dei servizi disponibili presso il Centro di Calcolo". <p>IS-ENES2 WP11 Project planned activities: "Developing software infrastructure for data archive services".</p>
<ul style="list-style-type: none"> • Period (from - to) 	From 04/01/2013 to 07/31/2013
<ul style="list-style-type: none"> • Name of employer • Company or work sector 	<p>CMCC – Centro euro-Mediterraneo sui Cambiamenti Climatici</p> <p>IT sector - High Performance Computing</p> <p>TESSA Project: "Sviluppo di Tecnologie per la 'Situational Sea Awareness' (TESSA) within the "Programma Operativo Nazionale 'Ricerca e Competitività' 2007-2013 (MIUR)"</p>
<ul style="list-style-type: none"> • Main activities and responsibilities • Additional activities 	<p>Design and implementation of software solutions needed to manage the access to the TESSA data repository in relation to the following development objective: OR3 " Data repositories dedicated system"</p> <p>Design and implementation of a Data Access Service on a virtual environment. Contribution to the second version of deliverable "Progettazione del Data Access Service, Metadata Service e del Data Trasformation Service (DASMSDTS)".</p>
<ul style="list-style-type: none"> • Period (from - to) 	From 04/01/2012 to 03/31/2013
<ul style="list-style-type: none"> • Name of employer • Company or work sector 	<p>CMCC – Centro euro-Mediterraneo sui Cambiamenti Climatici</p> <p>IT sector - High Performance Computing</p> <p>GEMINA Project</p>
<ul style="list-style-type: none"> • Main activities and responsibilities • Additional activities 	<p>Management and Development support to systems monitoring and CMCC HPC systems upgrading activities. Implementation of a software infrastructure dedicated to data archiving.</p> <p>GEMINA Project planned activities related to action A.2.19 "Coordination of Supercomputing Center and optimization of resources utilization":</p> <ul style="list-style-type: none"> • Administration and Management of CMCC SCC Storage and Computing Infrastructure with particular attention to backup/HSM system. • Development of a centralized monitoring system in order to monitor all resources and services of CMCC SCC. • P105 product contribution: "Versione finale del sistema integrato per il monitoraggio delle risorse e dei servizi disponibili presso il Centro di Calcolo".
<ul style="list-style-type: none"> • Period (from - to) 	From 10/10/2011 to 03/31/2012
<ul style="list-style-type: none"> • Name of employer • Company or work sector 	<p>CMCC – Centro euro-Mediterraneo sui Cambiamenti Climatici</p> <p>IT sector - High Performance Computing</p> <p>GEMINA Project</p>
<ul style="list-style-type: none"> • Main activities and responsibilities 	<p>Management and Development Support to systems monitoring and CMCC HPC systems</p>

• Additional activities

upgrading activities. Implementation of a software infrastructure dedicated to data archiving GEMINA Project planned activities related to action A.2.19 "Coordination of Supercomputing Center and optimization of resources utilization ":

- Administration and Management of CMCC SCC Storage and Computing Infrastructure with particular attention to backup/HSM system.
- Development of a centralized monitoring system in order to monitor all resources and services of CMCC SCC.

P105 product contribution: "Versione finale del sistema integrato per il monitoraggio delle risorse e dei servizi disponibili presso il Centro di Calcolo".

<ul style="list-style-type: none"> • Period (from - to) • Name of employer • Company or work sector 	<p>From 10/01/2008 to 09/30/2011</p> <p>Var Group S.p.A. Via L. Giuntini, 40 50053 Empoli (FI)</p> <p>IT sector - High Performance Computing</p> <p>CMCC Super Computing Center c/o "Centro euro-Mediterraneo per i Cambiamenti Climatici" located at "Campus Ecotekne - Università del Salento"</p>
<ul style="list-style-type: none"> • Main activities and responsibilities 	<ul style="list-style-type: none"> • Administration of SCC HPC infrastructure • Tuning of IBM HPC systems performance • IBM HPC systems availability management • IBM HPC systems troubleshooting • Monitoring the status and level of efficiency of technological systems present at CMCC Super Computing Center • Daily system management and Help-Desk activities from the primary site of CMCC • Availability to work also at night and in holiday periods in order to ensure, in case of malfunctions and under the terms provided by tender, fast maintenance interventions.
<ul style="list-style-type: none"> • Professional skills 	<ul style="list-style-type: none"> • Backup/HSM Services Management: <ul style="list-style-type: none"> ○ Installation, configuration, tuning ed update of IBM Tivoli Storage Manager software (on clients and servers) ○ Backup/HSM daily check activities ○ TSM clients management ○ Archiving System Monitoring (TSM server, TSM Client, Tape Library, ecc) using IBM and open-source tools ○ Troubleshooting BA/HSM problems ○ Restore requests (received via HelpDesk) management ○ Online and Nearline Storage Resources Management ○ Offsite and Onsite tapes management • IBM HPC systems Management at CMCC peripheral poles (INGV-Bologna and Capua-CIRA) through remote administration tools and such event, with on-site interventions: <ul style="list-style-type: none"> ○ Software Installation and configuration (IBM AIX OS, GPFS, POE, LSF, CSM, LoadLeveler, PESSL) ○ HPC systems performance maintaining ○ HPC systems availability maintaining ○ HW and SW Troubleshooting • Interaction with VARGroup and IBM in order to discuss about hw/sw problems planning interventions by outside specialists
<ul style="list-style-type: none"> • Vocational skills acquired 	<ul style="list-style-type: none"> • Installation and management of: <ul style="list-style-type: none"> ○ IBM DS4000 e DS3000 storage systems (+ IBM EXP810 expansions) ○ Server IBM System P: p520, p570 ○ Server IBM System X: x3550, x3650 • Installation and configuration of a CSM cluster using Infiniband interconnection • Installation, configuration, tuning and update/upgrade of: <ul style="list-style-type: none"> ○ HMC v.7.3 ○ IBM AIX v.5.3 OS (+ XLC, XLF compilers) ○ CSM v.1.7

- GPFS Parallel file system v.3.2.1
 - LSF v.7
 - IBM PESSL
 - IBM LoadLeveler
 - POE v.4.3.2
 - IBM Storage Manager
- Installation, configuration and management of VMware ESXi hypervisors on IBM x3650M servers
 - Installation, configuration and management of a large number of virtual machines created for the need of CMCC SCC activities and services
- Additional activities
 - Bash scripts implementation in order to automate check and monitoring operations
 - Websites layout design for the needs of the CMCC SCC

• Period (from - to)	Dal 16/07/2007 al 30/09/2008
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• Name of employer	Università del Salento – Dipartimento di Ingegneria dell’Innovazione
• Company or work sector	IT sector - High Performance Computing
• Main activities and responsibilities	"INTERREG IIIA Project / Greece - Italy, 2000-2006 Axis 2 Entrepreneurship - Cooperation in the field of research, development and technology transfer" "INTERSTORE Project: Decentralized data sharing applied to biomedical images processing" Administration of a cluster linux/unix (HP XC6000)
• Additional activities	Realization of an automatic configuration tool for server GrelC-DAS 2.4.1 (http://grelc.unile.it) formalized and released nationwide by INFNGRID. Support activities (installation and maintenance) about server VOMS, BDII, UI, RB for FARM EGEE Cabling, installation and configuration of an HP mini-cluster Bash Scripting Programming

• Period (from - to)	From 09/04/2006 to 12/04/2006
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• Name of employer	Università degli Studi di Lecce – Dipartimento di Ingegneria dell’Innovazione
• Company or work sector	IT sector - High Performance Computing
• Main activities and responsibilities	Development and implementation of a Linux tool for monitoring the HPC laboratory computing systems

• Period (from - to)	From 02/07/2006 to 05/07/2006
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• Name of employer	Università degli Studi di Lecce – Dipartimento di Ingegneria dell’Innovazione
• Company or work sector	IT sector - Energy and Environment Research Center
• Main activities and responsibilities	Implementation of a code for the homogeneous combination in Kiva 3V

• Period (from - to)	From 09/26/2005 to 12/12/2005
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• Name of employer	Università degli Studi di Lecce – Consorzio Nettuno
• Company or work sector	IT sector
• Role	IT Lab Manager - Webmaster
• Main activities and responsibilities	Creating and Managing www.nettuno.unile.it website Students Database creation and management Support to students activities (via email, phone, etc.) Managing multimedia lab Assistance computer equipment Media library management activities

• Period (from - to)	From 06/30/2004 to 06/30/2005
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• Name of employer	Università degli Studi di Lecce – Consorzio Nettuno
• Company or work sector	IT sector

- Role IT Lab Manager - Webmaster
- Main activities and responsibilities
 - Creating and Managing www.nettuno.unile.it website
 - Students Database creation and management
 - Support to students activities (via email, phone, etc.)
 - Managing multimedia lab
 - Assistance computer equipment
 - Media library management

• Period (from - to)	Before 06/30/2004
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• Name of employer	Kronos Informatica
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• Company or work sector	IT sector
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• Main activities and responsibilities	Agent of trade
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COMPUTER SKILLS

<ul style="list-style-type: none"> • Operating Systems 	<p>Installation, configuration, maintenance and securing of following os: Linux-Unix Mac OS X Microsoft Windows 95,98,Me,2000, XP and later</p>
<ul style="list-style-type: none"> • HPC Software and management tools 	<ol style="list-style-type: none"> 1. LSF 2. IBM GPFS 3. IBM CSM 4. IBM HMC 5. xCAT
<ul style="list-style-type: none"> • Backup Software 	<ol style="list-style-type: none"> 1. IBM Tivoli Storage Manager 2. IBM Tivoli Space Management 3. Bacula Backup
<ul style="list-style-type: none"> • Virtualization Software 	<ol style="list-style-type: none"> 1. VMware ESXi 2. Oracle VM Server 3. Oracle VM Manager
<ul style="list-style-type: none"> • Database 	<ol style="list-style-type: none"> 1. Installation, configuration and maintenance of Oracle DB
<ul style="list-style-type: none"> • Monitoring tools 	<p>Installation, configuration and maintenance of:</p> <ol style="list-style-type: none"> 1. Cacti 2. Nagios 3. Syslog-NG 4. VMware vCenter Server
<ul style="list-style-type: none"> • Other Software 	<ol style="list-style-type: none"> 1. Microsoft Office + Visio 2. Adobe Photoshop and Corel Draw 3. Macromedia Suite 4. Most popular Internet Browser and Mail Client 5. Software for Vectorial Images Editing 6. Software for Video Editing (Adobe Premiere Pro) 7. Software for Audio Editing (Cooledit Pro) 8. And other useful software...
<ul style="list-style-type: none"> • Computer equipment 	<p>Peripherals and Hardware usually used in an HPC environments (Server, Switch, Storage, Tape Library, ecc...)</p> <p>Peripherals and Hardware usually used in an office environment (Printer, Scanner, and so on)</p>
<ul style="list-style-type: none"> • Programming Languages 	<ol style="list-style-type: none"> 1. C/C++ 2. Html 3. ASP 4. PHP e MySQL 5. Javascript Elements 6. Bash Scripting
<ul style="list-style-type: none"> • Notes 	<p><i>Propensity and willingness to learn, in a short time, new software and programming languages if deemed useful or necessary for the work proposed.</i></p> <p><i>Ability to interpret and modify the source code relating to high-level programming languages have not yet been analyzed.</i></p>
<ul style="list-style-type: none"> • Certificates 	<p>Diploma "Corso Europeo di Informatica (european computer course) – Modulo di Formazione ALFA 1/L (Euroformazione) " issued by the Ministry of Defence – C.A.R. Marina Militare Taranto on May 14, 1999 (Vote 100/100)</p> <p>Certificate of "Web Design Course" issued on May 9, 2005 by the University of Lecce</p>

PERSONAL SKILLS

*acquired in the course of life and career
but not necessarily covered by formal
certificates and diplomas.*

TECHNICAL SKILLS

*concerning computers, equipment,
machinery, etc..*

From October 2011 to date, I collaborate with the CMCC with the title of Senior Research Associate within the SCO Division (Scientific Computing and Operations) - HSM Group

As a member of the HSM (HPC Systems Management) group, I deal with the management of the computing and storage infrastructures at the Supercomputing Center of CMCC with particular reference to the services of storage, backup, space management (BA/HSM system).

I provide support to the management and development of monitoring systems, strengthening and upgrading the system of calculation of the CMCC. I provide support to HPC systems users (helpdesk service, problem solving, etc.) and I am actively engaged in the development/revision of a software infrastructure needed to monitoring BA/HSM services, online and nearline storage resources and backed-up and archived data.

From 2009 to date, in addition to the above activities, I take care of installation, configuration, maintenance and management of virtual infrastructures (in VMware and Oracle environment) designed to meet the many requirements related to the various CMCC projects (OrientGate, Tessa, Eu-Brazil, Marsop4, IS-ENES, etc.).

In order to ensure an adequate level of security, service availability and data availability (data contained within some important virtual machines), I take care of the following aspects:

- virtual machine status monitoring;
- virtual machines resources consumption (RAM, CPU, storage, and so on);
- virtual machines pure-clonining;
- virtual machines content protection through cycles of incremental backup;
- disk backup system monitoring;
- information security;
- extension of the virtual machines storage sections;
- virtual machines network settings changing and optimizations;
- virtual machines restore;
- virtual machines network troubleshooting.

I am responsible of the disk based backup services that are preserving the CMCC main services data (web service and mail service).

Moreover, using some dedicated tools, I'm monitoring the resources usage (and status) of a large number of virtual servers in place at the SCC.

From 2015 to date, I am actively involved in the implementation of the virtual infrastructure dedicated to the CMCC Private Cloud. I am also involved in the implementation, configuration and maintenance of an Oracle Database Instance in a virtual environment on behalf of the JRC (<https://ec.europa.eu/jrc/>)

OTHER SKILLS

Monitoring and management of local area networks (LAN)

**EXTRAPROFESSIONAL
ACTIVITIES**

hardware and software support for computer equipment

Assembling of IBM compatible PCs

Website Design and Development for small / medium businesses

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B1	B1	B1	B1
French	B1	B1	B1	B1	B1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

- Publications
- Presentations
- Projects
- Conferences
- Seminars
- Honours and awards
- Memberships
- References
- Research Papers

"Monitoring Tools for HPC Data Centers: State of the Art":
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2332049

"Statistics on HPC Resources Usage at CMCC":
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2332046

Mauro Tridici