

## Curriculum Vitae di Michele Michelotto

Sono nato a Castelmassa (RO) il 7 dicembre 1963. Mi sono laureato in Fisica presso l'Università degli Studi di Padova nel 1989 discutendo una tesi su calcolo distribuito per analisi di dati di Spettroscopia Gamma.

Ho lavorato presso l'INFN come borsista nell'esperimento LEP al CERN sviluppando il software per la gestione dell'analisi offline dei dati dell'esperimento e la produzione di eventi Montecarlo

Dal febbraio 1996 al Febbraio 1998 ho avuto un contratto di fellow al CERN per la progettazione e analisi del software di DAQ per l'esperimento Atlas a LHC

Dal marzo 1998 sono stato assunto come tecnologo presso il servizio calcolo e reti della Sezione di Padova come responsabile del servizio. Dal 1998 sono stato rappresentante di Padova nella Commissione Calcolo.

Ho partecipato ad alcuni progetti di Grid Computing e in particolare sono stato coordinatore del WP4 di INFN e ho partecipato al WP4 del progetto European Data Grid.

Nel 2001 ho partecipato alla progettazione del Data Center congiunto tra la Sezione di Padova e il Dipartimento di Fisica. Il nuovo Data Center veniva usato come centro Tier A per la prima ricostruzione degli eventi prodotti dal detector Babar a SLAC (USA). In seguito, il Centro di calcolo viene usato da diversi esperimenti basati a Padova e fa parte del Tier2 Padova-Legnaro per gli esperimenti LHC CMS e ALICE

Dal 2005 al 2009 ho collaborato ad un WG del GARR per la sicurezza della posta elettronica sviluppando un sistema per la protezione da SPAM e e-mail con allegati pericolosi per la sicurezza informatica

Dal 2006 al 2016 ho avuto un incarico presso Università di Ferrara come professore a contratto per il corso di Reti di Telecomunicazioni, seguendo una decina di studenti nel lavoro di tesi.

Dal 2006 partecipo ad un WP di HEPiX per la definizione di un benchmark per misurare la potenza di calcolo chiamato HEP-SPEC 2006 (HS06) adottato da WLCG (Worldwide LHC Computing Grid) e in generale dalla comunità della Fisica delle Alte Energie. Dal 2016 circa il WG si sta occupando di sviluppare un nuovo benchmark basato su workload prodotti dagli esperimenti in container. Dal 2005 faccio parte del board di HEPiX

Sono coautore di oltre un centinaio di articoli nella Fisica delle Alte Energie e di una ventina di articoli di Computing e Information Technology

Padova, 21 dicembre 2022

PERSONAL INFORMATION **Alessandra Doria****WORK EXPERIENCE and RESPONSABILITIES**02/12/2015–Present **2<sup>nd</sup> level technologist at I.N.F.N. Sezione di Napoli**

Since 2022, representative of Tier2 sites in INFN “Commissione Calcolo e Reti”

Participation in the preparation of the IBiSCo project, as Scientific responsible of the workpackages “Enhancement of HTC/HPC computing” and “Enhancement of Storage systems”.

Deployment and management of the Ibisco data center at INFN Napoli.

Participation in the ReCaS project, deployment and management of the ReCaS data center at INFN Napoli.

Management of the at INFN Napoli Tier2 data center for ATLAS experiment at CERN.

Co-coordinator of the ATLAS Tier2 Italian Federation, in charge of the coordination of the local computing activities with the ATLAS central operations.

02/09/1996–02/12/2015 **Technologist at I.N.F.N. Sezione di Napoli**

Collaboration with the ATLAS experiment at CERN as operational responsible for the ATLAS Tier2 site located in Napoli.

Participation in the design of the Tier2 infrastructure and responsible for the deployment and management of the local computing and storage resources.

Participation in the Worldwide LHC Computing Grid activities and representative of the Italian Tier2 centres in the WLCG Operation Coordination group.

01/09/1994–01/09/1996 **I.N.F.N. Fellowship in Computing for High Energy Physics**

Development of the Data Acquisition System for the KLOE experiment of the e+e- collider DAFNE at INFN National Laboratories of Frascati

01/05/1993–30/04/1994 **I.N.F.N. Sezione di Napoli Associate ( Fellowship by Hewlett-Packard Italy)**

Development on HP workstation of the event visualization program for L3 experiment at e+e- collider LEP at CERN .

**EDUCATION and TRAINING**01/09/1994–01/09/1996 **I.N.F.N. Fellowship in Computing for High Energy Physics**

Participation to CERN School of Computing, Sopron (HU)

01/05/1993–30/04/1994 **Fellowship by Hewlett-Packard Italy**

Participation to HP courses about graphical and visual programming.  
 Participation to HP courses about Unix systems

16/07/1992 **Degree in Physics**  
 With full marks and honour at University "Federico II" of Naples

1984 **Scientific High School Diploma**

**PERSONAL SKILLS**

Mother tongue(s) Italian

| Other language(s) | UNDERSTANDING |         | SPEAKING           |                   | WRITING |
|-------------------|---------------|---------|--------------------|-------------------|---------|
|                   | Listening     | Reading | Spoken interaction | Spoken production |         |
| English           | C1            | C1      | C1                 | C1                | C1      |
| French            | B2            | B2      | B1                 | B1                | A2      |

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user  
[Common European Framework of Reference for Languages](#)

Organisational / managerial skills Expert in management of computing resources and infrastructures  
 Good experience in coordination of technical activities and human resources

Job-related skills System administration, deep knowledge of Linux operating system.  
 Good skill in programming C/C++, Java, Python, shell scripting.  
 Good knowledge of the most common software monitoring and management tools.

**ADDITIONAL INFORMATION**

- Selected Publications
- 1) A. Doria, et al , Distributed caching system for multi-site DPM storage, EPJ Web Conf. 214 04056 (2019)
  - 2) A. Doria et al, A prototype Infrastructure for Cloud-based distributed services in High Availability over WAN, Journal of Physics: Conference Series 664 (2015) 022032
  - 3) A. Doria et al, Computing Activities in High Energy Physics: Atlas Tier 2 at INFN–Napoli, High Performance Scientific Computing Using Distributed Infrastructures pp. 165-178 (2017)
  - 4) The ATLAS Collaboration, Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC; Phys.Lett.B 716 p.1-29 (2012)
  - 5) M. Aaboud et al., Performance of the ATLAS Trigger System in 2015, Eur.Phys.J.C 77 (2017) 5, 317

Napoli 05/01/2023

PERSONAL INFORMATION **Sandra Parlati**

## WORK EXPERIENCE

- 2022-Present Responsible of the LNGS HPC4DR computing infrastructure as part of the ICSC Italian Research Center on High Performance Computing, Big Data and Quantum Computing financed with 319MEuro by the Italian Ministero dell'Università e della Ricerca (MUR) in the framework of the PNRR National Recovery and Resilience Plan.  
Responsible of the personnel and activities financed by the ICSC project at LNGS site.
- 2022-Present Coordinator of the OR3 "Data and digital infrastructures" of the LNGS-Future Project financed with 20MEuro by the Italian Ministero dell'Università e della Ricerca (MUR) in the framework of the PNRR National Recovery and Resilience Plan.  
Responsible of the personnel and activities financed by the OR3 of the LNGS-Future project.
- 2019-Present Contact person of the OR1 "Optical Fiber infrastructure" for the PON FARO2030 Project financed with 18.4MEuro by the Italian Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR)  
Responsible of the personnel and activities financed by the OR1-fibra of the PON FARO2030 project.
- 1/06/2005 – Present **Head of the Computing and Network Service**  
Gran Sasso National Laboratories - LNGS  
The Italian National Institute for Nuclear Physics (INFN)  
L'Aquila (Italy)
- Computing and Network infrastructures: design, implementation and management; Scientific computing and support to LNGS experiment's communities; HTP and HPC; cybersecurity and personal data protection; general IT services and LNGS user support; staff selection and recruitment; procurement procedures for Hardware and software; teaching and training activities as well as outreach activities.
- 01/2020 – Present **Senior technologist**  
Gran Sasso National Laboratories - LNGS  
The Italian National Institute for Nuclear Physics (INFN)  
L'Aquila (Italy)
- [www.lngs.infn.it](http://www.lngs.infn.it)  
Technological Research on field of Computing and Network Infrastructures, Scientific computing, HTC and HPC, IT services.
- 12/2001 – 12/2019 **Technologist** - permanent position  
IT Division - Gran Sasso National Laboratories  
The Italian National Institute for Nuclear Physics (INFN)  
L'Aquila (Italy)  
[www.lngs.infn.it](http://www.lngs.infn.it)  
Technological Research on field of Computing and Network Infrastructures, Scientific computing, HTC and IT services.
- 03/1997 – 12/2001 Technologist - term contract  
IT Division - Gran Sasso National Laboratories - INFN  
L'Aquila (Italy)  
Technological Research on field of Scientific computing, HTC, IT services.

- 11/1995 – 01/1996 Computer Officer  
University of Lecce (Italy) and Gran Sasso National Laboratories – INFN  
Data management for the MACRO experiment
- 02/1995 – 07/1995 Term Contract in Research Project  
University of Pisa (Italy) and INFN Pisa  
Measurement of the characteristics of the PMT used in th CHOOZ experiment
- 09/1992 – 12/1994 Computer Officer  
California Institute of Technology and INFN  
Management of the DAQ and analysis cluster of the MACRO experiment; data management

EDUCATION AND TRAINING

- 5/1996- 03/1997 Research Fellowship  
CNR Istituto di Cosmogeofisica – Turin (Italy)  
Development of the event display of the ICARUS experiment.
- 09/1991- 09/1992 Research Fellowship  
INFN and Digital Equipment Corporation  
Study of the Ethernet and FDDI local area networks
- 06/1991 – 09/1991 Summer student  
Gran Sasso National Laboratories (INFN)  
Data management and reduction for the MACRO experiment
- 03/1991 **Graduation in Physics with full marks (110/110)**  
University of Turin - Turin (Italy)

PERSONAL SKILLS

|                   |               |         |                    |                   |         |
|-------------------|---------------|---------|--------------------|-------------------|---------|
| Mother tongue(s)  | Italian       |         |                    |                   |         |
| Other language(s) | UNDERSTANDING |         | SPEAKING           |                   | WRITING |
|                   | Listening     | Reading | Spoken interaction | Spoken production |         |
| English           | B1            | B2      | B1                 | B2                | B2      |
| French            | A2            | B1      | A2                 | A2                | A2      |

**Communication skills** Excellent communication skills built in a variety of professional and non-professional contexts, including:

- coordination of large working teams
- contacts with students and teachers for organization of courses and schools
- Outreach skills gained in various presentations for educational purposes in schools and in the occasion of public events and other third mission activities

**Organisational / managerial skills** Outstanding skills for organizing team work (refined in almost 17 years spent in the management of team of up to 10 people)  
Excellent organizational skills with long-term experience in activity planning, personnel training, as well as in maintenance, upgrading and acquisition of technical equipment and infrastructures.  
Capability to solve problems and negotiate solutions.

**Computer skills** OS: VMS, Unix/Linux, Windows, MacOS  
Programming languages: C/C++, Fortran, Perl

Digital skills

| SELF-ASSESSMENT        |                 |                  |                 |                 |
|------------------------|-----------------|------------------|-----------------|-----------------|
| Information processing | Communication   | Content creation | Safety          | Problem solving |
| Proficient user        | Proficient user | Independent user | Proficient user | Proficient user |

COMMISSION OF TRUST

- Since 2001 Representative of the Gran Sasso National Laboratories and INFN L'Aquila inside the "INFN National Computing and Network Commission" Italy
- Since 2005 Sole Project Manager for all procurement procedures for IT Hardware and software Laboratori del Gran Sasso INFN
- Since 2007 Member and President of several Panel for the selection of Personnel at Laboratori del Gran Sasso and other INFN sites – Italy
- Since 2013 Referee of the "R&D Projects" of the "INFN National Computing and Network Commission" Italy
- Since 2016 "LHCOne site contact" for LNGS in the context of the worldwide LHCOne network
- 2017 Reviewer of the IEEE Nuclear Science Symposium" for the section "Computing and Software and Software Reliability".
- Since 2019 "Local representative in matter of Personal Data Protection" of Gran Sasso National Laboratory - INFN
- Since 2007 Member and President of several Tender Committee for INFN – Italy
- Since 2022 member of the Scientific Committee of the HPC4DR ("High Performance Computing for Disaster Resilience") Consortium
- Since 2022, sole manager of the procurement Procedure for INFN national projects (ICSC)
- Since 2020, LNGS representative inside the INFN National Assembly of the Researchers and Technologists.

Publications

Author and co-author of more than 60 scientific papers

▪ **Scopus h-index:** 32, Paper:66, citations:10599; **Inspire h-index:** 37, Paper:71, citations: 11203

▪ Recent publications:

◦ Accurate GPS-based timestamp facility for Gran Sasso National Laboratory  
DOI: [10.1088/1748-0221/14/04/P04001](https://doi.org/10.1088/1748-0221/14/04/P04001)

◦ U-LITE, a Private Cloud Approach for Particle Physics Computing  
DOI: 10.4018/IJACAC.2019010101

◦ INFN towards Cloud Computing  
DOI: [10.1109/NCCA.2014.13](https://doi.org/10.1109/NCCA.2014.13)

Personal data

I hereby authorize the use of my personal data in accordance to the GDPR 679/16 - "European regulation on the protection of personal data".