europass Curriculum vitae

## INFORMAZIONI PERSONALI


# Allegro Martina

ISTITUTO NAZIONALE DI FISICA NUCLEARE - Viale Berti Pichat 6/2, 40127 Bologna (Italia)


## ESPERIENZA PROFESSIONALE

**Set. 86–Lug. 87** — Terminalista
EL.DA. Service, Padova
- terminalista e addetta Data Entry

**Ago. 87–Mar. 88** — Ragioniera
Studio Rag. Busa, Padova
- contabilità generale di aziende clienti
- adempimenti IVA
- rapporti con Istituti bancari

**Apr. 88–Mag. 90** — Responsabile di filiale
Eurodata Srl, Bologna
- addetta alla gestione amministrativa
- addetta alla gestione e coordinamento Ced per conto terzi

**Set. 90–Lug. 94** — Collaboratore di amministrazione
INFN - CNAF, Bologna
- gestione del personale
- segreteria di direzione
- supporto alle attività amministrative

**Ago. 94–Gen. 15** — Collaboratore di amministrazione
INFN - Sezione di Bologna
- gestione amministrativa : ordini, fatture, pagamenti, inventario
- gestione fondo economale

**Feb. 15–alla data attuale** — Responsabile del Servizio di Amministrazione delle due Strutture INFN
INFN - Sezione di Bologna e CNAF, Bologna
- responsabile amministrativo
- gestione finanziaria della Sezione di Bologna e del CNAF
- organizzazione delle attività amministrative e gestionali della Sezione di Bologna e del CNAF
- responsabile di un team di 7 persone ed interazione con circa 350 persone tra dipendenti ed associati
- gestione & rendicontazione progetti europei H2020

## ISTRUZIONE E FORMAZIONE

Lug. 86 **Diploma di Ragioniere e Perito Commerciale**
Istituto Tecnico Commerciale Leon Battista Alberti, Abano Terme (PD)

Apr. 06 **Patente europea d'uso del computer ECDL**
AICA - Associazione Italiana per l'Informatica e il Calcolo Automatico

## ULTERIORI INFORMAZIONI

Trattamento dei dati personali: Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali.

Bologna, 30/04/2019 Firma:

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# Daniele Cesini

## WORK EXPERIENCE

**01/11/2020 – CURRENT** – Bologna, Italy

### Data Center Coordinator

INFN - Italian Institute for Nucler Physics

Coordinator of the INFN-CNAF Datacenter. Providing resources to about 40 scientific collaborations and experiemnts. It is a World Wide LHC Computing Grid (WLCG) Tier1. It hosts 50000 computing cores, 60PB of disk spaces and 100 PB of tape storage.

**01/06/2014 – 31/10/2021** – Bologna, Italy

### User Support Team Coordiantor

INFN - Italian Institute for Nucler Physics

User Support Team Coordinator at the CNAF datacenter of the Italian Institute for Nuclear Physics. The group acts as link between the INFN user communities accessing the computing facilities at CNAF and the Operations team. It helps in debugging user problems and supports the creation of computing models.

**01/11/2017 – 30/04/2020** – Bologna, Italy

### ICT project manager

INFN - Italian Institute for Nucler Physics

Project coordinator of the H2020 eXtreme-DataCloud project (XDC - http://www.extreme-datacloud.eu/) dealing with the development of data management services for extremely large datasets in heterogeneous and distributed e-infrastructures

**01/01/2015 – 31/12/2019** – Bologna, Italy

### ICT project manager

INFN - Italian Institute for Nucler Physics

COSA (Computing-On-SoC-Architecture) project coordinator. An INFN internal technology tracking project to evaluate the computing performances of low-power architectures taken from the embedded and mobile world for scientific applications. Moreover it benchmarked computational accelerators for the same applications.

**01/09/2020 – CURRENT** – Bologna, Italy

### ICT Project Coordinator

INFN - Italian Institute for Nucler Physics

Coordinator of the INFN team participating to the IoTwins project (https://www.iotwins.eu) an H2020 initiative deling with the development of a computing architecture and infrastructure to create Digital Twins for SMEs, huge industrial facilities and datacenters.

**01/01/2021 – CURRENT** – Bologna, Italy

### ICT Project Coordinator

INFN - Italian Institute for Nucler Physics

Coordinator of the INFN team participating to the H2020 StairwAI project which has the aim of promoting and facilitating the usage of Artificial Intelligence in European SMEs through the creation of ICT services based on the AI4EU system. Moreover it organizes competitive calls for the usage of the project services by the industries.

**01/04/2006 – CURRENT** – Bologna, Italy

### IT Researcher

INFN - Italian Institute for Nucler Physics

Within the Italian National Grid Initiative (NGI) connected to the European Grid Infrastructure (EGI) worked in distributed and Grid Computing in the context of European FP7 and H20020 projects: the EGEE series, EGI-InSPIRE, ExaNest, HNSCICloud

System administrator of the HPC clusters at INFN-CNAF.

Administrator of the storage systems of the CNAF datacenter in particular the GPFS filesystem, the data transfer services and the frontends exposed to the users

**01/04/2018 – CURRENT** – Bologna, Italy

### Adjunct Professor

University of Bologna

Professor at the Master Degree on Bioinformatics - course on Big Data Processing Infrastructures.

**01/06/2002 – 30/09/2003** – Modena, Italy

### Collaborator

University of Modena and Reggio Emilia

Research entitled: *"Simulations of the atmospheric circulation through limited area numerical models: study of strong wing cases*". It involved the configuration, usage and output data analysis of the mesoscale NCEP-ETA model run on parallel machines to study the Antarctic catabatic winds and the Bora wind on the Adriatic Sea region.

Activity on the subject: "Processing Antarctic data to prepare the initial and boundary conditions of a atmospheric numerical mesoscale model run on the Hells Gate region at Baia Terranova".

**01/04/2004 – 31/03/2006** – Bologna, Italy

### Collaborator

INFN - Italian Institute for Nucler Physics

Member of the Central Operations Team which coordinated the INFNGrid Infrastructure.

Supporter of production and pre-production sites, administrator and supporter of core Grid services.

Coordinator of the testbeds and of the testing activities for various gLite middleware products, in particular those related to the job management and to the authentication of the users

## EDUCATION AND TRAINING

**01/09/1995 – 14/12/2001** – Bologna, Italy

### Degree in Physics

University of Bologna

**Field(s) of study**

- Subnuclear Physics

110/110 | Trigger simulation for the selection of muon events in the CMS experiment at the LHC

## LANGUAGE SKILLS

**MOTHER TONGUE(S):** Italian

**OTHER LANGUAGE(S):**

**English**

| Listening | Reading | Spoken production | Spoken interaction | Writing |
|---|---|---|---|---|
| C1 | C2 | C1 | C1 | C2 |

## DIGITAL SKILLS

Cloud Computing / Cloud platform: AWS, GCP etc. / Unix - Linux (Optimal Knowledge) / Programmin (C++ and Python) / bash / fortran / Microsoft office / High Performance Computing / Grid computing / Distributed Computing

sottoscritto elettronicamente

Firmato da
Daniele Cesini
IT
in data
12-10-2022

# Nicoletta Mauri
# Curriculum Vitæ et Studiorum

## Education

| | |
|---|---|
| *2011* | Ph.D. in Physics, University of Bologna<br>(Dottorato di Ricerca in Fisica, XXIII ciclo)<br>Final grade: Excellent |
| *2006* | Laurea in Physics, University of Bologna<br>Final grade: 110/110 magna cum laude |

## Research Contracts and Fellowships

| | |
|---|---|
| *Sep 2022–to date* | Professoressa Associata<br>Department of Physics and Astronomy, University of Bologna, Italy |
| *Sep 2019–Sep 2022* | Ricercatrice a tempo determinato, tipo b)<br>Department of Physics and Astronomy, University of Bologna, Italy |
| *Mar 2017–Sep 2019* | Ricercatrice a tempo determinato, tipo a)<br>Department of Physics and Astronomy, University of Bologna, Italy |
| *Oct 2015–Mar 2017* | Assegno di ricerca INFN, INFN Bologna, Italy |
| *Apr 2015–Sep 2015* | INFN Contract (ex art. 2222), INFN Bologna, Italy |
| *Mar 2013–Feb 2015* | Assegno di ricerca Unibo<br>Department of Physics and Astronomy, University of Bologna, Italy |
| *Sep 2010–Aug 2012* | Assegno di ricerca INFN<br>Laboratori Nazionali di Frascati, Frascati (Roma), Italy |
| *Nov 2009–Apr 2010* | LHEP Research Fellow (Assistentin III) and Ph.D. Internship<br>Albert Einstein Center for Fundamental Physics<br>Laboratory for High Energy Physics, University of Bern, Switzerland |
| *Jan 2008–Dec 2010* | Ph.D. Course in Physics<br>Department of Physics, University of Bologna, Italy |
| *Nov 2007–Oct 2009* | INFN Research Fellow, INFN Bologna, Italy |
| *Apr 2007–Oct 2007* | Unibo Research Fellow<br>Department of Physics, University of Bologna, Italy |

## Scientific Achievements and Responsibility Roles

My scientific activity has been focused on High Energy Physics, mainly on Neutrino physics and HE cosmic rays. I've been responsible for Monte Carlo simulations and data analyses. I developed software codes in C++ and Fortran programming languages and performed data analysis in the ROOT framework. I contributed to the construction and data taking of both electronic and nuclear emulsion detectors and to the development of a novel tracking system based on scintillators and SiPM. Involved also in Observational Cosmology, I contributed to the study of cosmic microwave background and large scale structures. I've carried out my research activities mainly in the OPERA, NESSiE, Planck, Euclid and DUNE Collaborations.

- **Author** of 91 papers published on peer reviewed journals and 24 conference proceedings h-index = 37, total number of citations > 7500 (Scopus)
- Contributions at international and national conferences: **15 oral presentations**, out of which **7 invited talks**, and 2 posters
- Invited seminars (2) and lectures (3) at Italian, Swiss and Brazilian institutions
- **Peer Reviewer** for the following international journals:
  - *Advances in High Energy Physics; Astroparticle Physics; Nuclear Instruments and Methods in Physics Research, A; Journal of Cosmology and Astroparticle Physics*
- **Teaching responsibilities**: module of the course "Laboratory of Electromagnetism and Optics", First Cycle Degree in Physics (2017-to date); module of the course "Mathematics, Statistics and Physics", First Cycle Degree in Aquaculture and Fish Production Hygiene (2022); teaching tutor for courses of Electromagnetism for 5 academic years (2012–2017)
- Supervisor of 2 Ph.D., 2 Master and 1 Laurea thesis;
  Co-Supervisor of 3 Ph.D. and 1 Master thesis
- **Institutional responsibilities**:
  - Member of the examination committee for a Post-Doc grant, University of Bologna (2019)
  - Member of the INFN examination committee for Post-Doc grants (2020–2022)
  - Expert Member in the examination board for a PhD grant - University of Bologna (2020), External Referee for a Ph.D. thesis at University of Perugia (2022)
  - Co-coordinator of the Cloud Chamber Exhibition at the European Researchers' Night (2018–to date)

- Main **responsibility roles**:

  - 2018-to date: Local P.I. of the Bologna Research Unit - PRIN MIUR 2017, 2017KC8WMB project
    Development of a UV imaging system in liquid argon detectors for neutrino, particle, and medical physics applications. PRIN 2017 call, approved in February 2019, allocated budget of 200kEuro (over a total MIUR contribution of 812 kEuro)

  - 2006-to date: member of the OPERA Collaboration, with responsibilites in Monte Carlo production for cosmic rays (2008-to date), Reconstruction Package development (2007-to date), Cosmic Ray Working group analyses (2 papers as Corresponding Author and several conferences), emulsion scanning and analysis (2009-2015)

  - 2008-2013: Run Coordinator and Expert Shifter for the OPERA Electronic Detector data taking at LNGS
    Responsible for the whole hybrid detector data taking during several weeks in each Physics Run, from CNGS beam extraction monitoring to sub-detector and magnet operations, slow controls, raw data reconstruction

  - 2010-2012: Responsible for the OPERA laboratory at INFN-LNF
    Responsible for the LNF Scanning station equipped with two European Scanning systems, in charge of measuring and analyzing part of the emulsion units extracted from the OPERA target (2 staff people and 2 technicians)

  - 2007-to date: Author of the official Reconstruction Package for atmospheric muons in the OPERA software chain
    Code development and maintenance in the official software chain

  - 2012-to date: Corresponding author and internal referee for publications of the OPERA Collaboration

  - 2015-to date: member of Planck and Euclid Consortium, responsible for running High Performance Computing jobs for cosmological parameter estimation at CINECA and CNAF farms, supervisor of a PhD, a Master and a Laurea thesis

  - 2017-to date: member of the DUNE Collaboration, responsible for Monte Carlo simulations of Near Detector options and of a VUV-imaging system in liquid Argon; Conceptual design development of the SAND detector and of the Liquid Argon target inside it (GRAIN), supervisor of a PhD and a Master thesis

  - 2020-to date: National Representative at the International Organizing Committee (IOC) of the International Physicists' Tournament (https://iptnet.info/organizing-committees/)

Bologna, 10 Ottobre 2022 Nicoletta Mauri