[Template to be used only for the admission request to the selection procedure of a PhD programme on the dedicated online platform PICA]

Curriculum Vitae Europass

Personal information

Name(s) / Surname(s)

Address(esd)

Telephone(s)

Fax

E-mail

Skype

Zoom Personal ID

LINKEDIN:

Citizenship

Date of birth

Sex

Profile

Doctor in Physics, curriculum Subnuclear and Astroparticle Physics. Now seeking for a PhD research position.

Work experience

05/2019 – 03/2020 -- **Member of the LIGO-Virgo "Gamma-Ray Bursts" data analysis group, for master thesis research.**

Dates

2010 -- to date. While my university course was still going on, I started giving private lessons to middle and high school students. After I got my bachelor's degree, I decided to continue also during the specialization.

Occupation or position held

Main activities and responsibilities

29/04/2019-03/05/2019 -- **Data Analysis with the framework ROOT to Laboratori Nazionali del Sud (LNS) di Catania, Italy**.
Fellow researcher for I.N.F.N (Istituto Nazionale di Fisica Nucleare) at L.N.S to experience data analysis with the framework ROOT. I wrote a macro for the Vinogradov function to updates the role of the crosstalk and afterpulsing probability distributions associated to the output of Silicon Photomultipliers (SiPM). Supervisor: Luciano Pandola.

2013-2019 – Actively partecipating in Science Divulgation events, organized by Città della Scienza in collaboration with Federico II University of Naples, Futuro Remoto and PONYS (Physics and Optics Naples Young Scientists).
Espositore alle seguenti iniziative: Passione Fisica. Termogiocando! Storie di Rivoluzioni, Scienza e Tecnologia. Da Leonardo Da Vinci ad oggi. Un viaggio tra scienza e fantascienza.

Name and address of employer

Type of business or sector

Workshops

18-21 April 2020 -- APS (American Physics Society) Physics Virtual Meeting

5-8/06/2018 -- VST in the era of the large sky surveys. Astronomical Observatory of Capodimonte, Naples, Italy.

24-26/01/2017-- Workshop on Dark Matter and Dark Energy to University Federico II of Naples, Italy

26-29/09/2016AGN12: XII National Congress on Active Galactics Nuclei to University Federico II of Naples, Italy

Education and training

Dates

20/03/2020 -- Master Degree in Physics, curriculum Sub-nuclear and Astroparticle Physics, University Federico II of Naples.
Thesis Title: A Targeted search for Gravitational waves signals in coincidence with short Gamma Ray Bursts for the LIGO-Virgo Interferometers Network.
Supervisors: Prof. Francesco Pannarale, Prof. Tristano Di Girolamo.
Final grades: 109/110
http://www.infn.it/thesis/thesis_dettaglio.php?tid=14620

https://wiki.ligo.org/Bursts/O3PyGRBTraining

https://wiki.ligo.org/Bursts/O3PyGRBOfflineAnalysis

My thesis research was carried out within the LIGO-Virgo Collaboration and propose a targeted and coherent search for gravitational wave signals associated with short duration gamma-ray bursts. As an active member of the LVC "Gamma-Ray Bursts" working-group, I have analyzed the off-line interferometers output data in temporal and spatial coincidence with 3 short GRBs (GRB190510430, GRB190606080 and GRB190817953) detected by Fermi satellite during the first part of the third observing run (O3a) of Advanced LIGO and Advanced Virgo (1 April 2019 15:00 UTC — 1 October 2019 15:00 UTC). I used the analysis pipeline PyGRB officially used by the LVC data analysis group. PyGRB is a coherent matched filter within the PyCBC open-source software, used to analyze data from multiple detectors, able to perform various signal-based veto cuts to determine whether a compact binary coalescence signal is present in the given data. The output is a webpage containing the plots that can be used to understand the results of the analysis. My work will make possible the upcoming LIGO-Virgo Collaboration's O3a publications.

Title of qualification awarded

20/05/2015 -- Bachelor Degree in Physics, University Federico II of Naples.
Thesis Title: Study of the emission of fragments in the reaction 58Ni+48Ca to 25 AMeV. Supervisors: Prof. Mariano Vigilante, Dr.ssa Laura Francalanza.
Final grades: 95/110
http://www.infn.it/thesis/thesis_dettaglio.php?tid=10489

07/2009 High school leaving qualification in scientific studies to "L.S.S. Filippo Brunelleschi", Afragola (NA)
Final grades: 94/100.

Main subjects / occupational skills covered

Organisation providing education and training

Level in EQF or national classification

Personal skills

Good skills to carry out professional activities that require knowledge of physical methodologies and analysis activities.

2018 -- Acquisition of the 24 CFU at University Federico II of Naples, for access to the competition for non-qualified teachers.

Mother tongue(s)

Specify mother tongue(s)

Italian

Foreign language(s)

Self-assessment	Understanding		Speaking		Writing
European level (*)	Listening	Reading	Spoken interaction	Spoken production	
Language English	B2	C1	B2	B2	C1
Language French	A2	A2	A2	A2	A2

(*) Common European Framework of Reference for Languages

Communication skills

I sharpened my decision-making, communication and organization skills while participating as a volunteer in science divulgation events. I started in high school and continued during universities studies.

The projects carried out during my studies and the not yet numerous professional experiences have prepared me for teamwork, work for goals and being able to handle different situations and different environments within a multi-cultural context.

Organisational / managerial skills

Job-related skills

Other skills	Digital Skills - Operating systems: Mac OS-X Unix/Linux, Windows. - Programming: C++, basic Python, ROOT. -Softwares: LATEX, Microsoft (Office, Word, Excel, PowerPoint). -LIGO softwares: PyGRB, cluster HPC computing resources. -Smart Working apps: Microsoft Teams, Skype, Zoom, TeamSpeak, Slack, Google Meet.
Driving licence	**B**
Additional information	Enter any additional information relevant to your application (eg. Publications, memberships, references)
Attachments	List attached documents