PERSONAL INFORMATION

Michele Punturo

WORK EXPERIENCE

2019- **Science director (*Dirigente di ricerca*) at the Istituto Nazionale di Fisica Nucleare (INFN) – Sezione di Perugia**

Coordinating the Einsten Telescope project in Italy, national coordinator of the ET-INFN collaboration and co-chairing the Einstein Telescope international steering committee. P.I. of the Einstein Telescope proposal to the 2021 update of the ESFRI roadmap.

2012-2018 **Senior researcher (*Primo Ricercatore*) at INFN. – Sezione di Perugia**

Since more than 10 years I inspired and created a sector of the Gravitational Wave (GW) research devoted to the future (3G) detectors; currently I'm a Co-Chairman of the new born GWIC (Gravitational Wave International Committee) subcommittee devoted to the world-wide coordination of the 3rd generation GW projects.

International coordinator of the European project GraWIToN, supported by European Commission in the FP7-Marie Curie Actions framework. GraWIToN (2014-2018) is an International Training Network aiming to the training of 14 PhD in Europe in the Science and Technologies related to the Gravitational Wave detectors (General Relativity, Astrophysics, Opics, Signal Processing, ...). In this role I organised scientific, technical and management schools in Europe.

International coordinator of the European project ELiTES, supported by European Commission in the FP7-IRSES framework. ELiTES is a international exchange project between Europe and Japan, in the gravitational wave (GW) research field, involving Italian, French, Dutch, British, German and Japanese Universities and institutions; it started the 1st of March, 2012 with a duration of 5 years. The meetings of ELiTES are hosted by the European Delegation in Japan (Tokyo).

Since October 2015 Coordinator of all the computing activities in the Virgo experiment; in this role I have the responsibility to plan and organise the computing resources and infrastructures of the Virgo collaboration.

Member of the INFN Astroparticle national committee (CSN2), representing the Perugia INFN unit. In this context I'm acting as referee for the computing requests of all the experiments belonging to CSN2..

Member of the INFN committee for post-doc positions at the INFN unit in Perugia

INFN Perugia Representative within the National Training committee (2011-2015)

Member of the Gravitational Wave International Committee (GWIC) since 2008.

Referee on large research proposals (IRAP) for the Foundation for Polish Science (2017)

Referee for European COST proposals (2016)

Referee for research proposal for the Hungarian Academy of Science (2016)

Referee on research proposals for the Australian Research Council (2016)

Referee on research proposals for the British Science and Technology Facilities Council (2015)

Evaluator of the quality of the research for the Czech Academy of Science (2015, 2020)

Referee for the Italian University and Research Ministry in the "Futuro in Ricerca 2013" programme.

2006-2011 **Senior Researcher (Primo Tecnologo) at the INFN-Perugia**

International scientific coordinator of the Einstein Telescope (ET) project, supported by the European Commission under FP7-Capacities. ET is a design study of a 3rd generation gravitational wave observatory. The ET design study involved 5 nations (Italy, France, Germany, The Netherlands and UK) and now involves scientists coming also from Poland, Hungary and Russia.

Chairman of the 2nd ASPERA Technology Forum on Mirror and Lasers in Astroparticle Physics Infrastructures (Ott.2011), a workshop organized to facilitate the interaction between European laser and optics industries and Research Institutes involved in astroparticle research.

Consultant of the European Gravitational Observatory for the international relationships; in this role I organized a joint meeting between EGO and the Japanese Institute for the Cosmic Ray research (ICRR), supported by the Italian Embassy in Tokyo, and a joint meeting between EGO and IndIGO (Indian Initiative in Gravitational Wave Observation, Pune, India), supported by the Italian Embassy in New Delhi.

Guest Editor of a "General Relativity and Gravitation" journal special issue devoted to ET.

Member of the Gravitational Wave International Committee (GWIC) since 2008.

Detector coordinator (until 2008) of the Virgo experiment.

2000-2006 **Researcher (Tecnologo) at the INFN-Perugia**

Detector coordinator of the international experiment Virgo, managing and steering all the upgrade activities of the detector. In this role I coordinated the "in situ" activities of the Virgo scientific collaboration, composed by about 150 physicists and engineers, coming from France, Italy and The Netherlands.

Coordinator of the networking (N5) activities of the ILIAS project, an integration activity supported by the European Commission under FP6-Capacities.

Promoter of a project named QuCORP, addressed to the direct measurement of the radiation pressure in optical devices (GW detectors and MEMS), supported by INFN 5th national committee.

Principal applicant and Chairperson of an international Exploratory Workshop supported in 2005 by the European Science Foundation (ESF) and titled "Toward a 3rd generation European Gravitational Wave Observatory".
Referee for the Vigoni programme for the exchange programme between Italian and German universities.
Referee for the American Project eLIGO
Referee for the NSF for the LIGO R&D projects.
Representative for INFN-Perugia in the National Computation and Networking committee.
Consultant of the company SESO (Société Européenne de Systèmes Optiques) in a Technology Transfer activity
Consultant of the company SILO (Società Italiana Lavorazioni Ottiche) in a Technology Transfer activity

Business or sector GW research, International projects

1994-1999 **Researcher (temporary position) at the INFN-Perugia**

Responsible of the design and assembling of the Virgo optics suspension system.

Business or sector GW research

1990-1993 **PhD at the Perugia University**

Research activity at the CERN experiments UA2, NA31 and NA48. Design of mechanical, electronic and software components.

Business or sector High Energy Particle Physics

EDUCATION AND TRAINING

1990-1993 **PhD in Physics**

"Study of a rare decay of the Meson Ks: Ks→2γ"

- Data Analysis, Simulation, Fortran, C programming

1990 **Degree ("Laurea") in Physics (110/110 e lode)**

"Development of a detector for a future High Energy particle accelerator"

- Data Analysis, Simulation, Fortran, C programming

PERSONAL SKILLS

Mother tongue(s): Italian

Other language(s):

ENGLISH	FRENCH (SCHOLASTIC)	

Communication skills: Good communication skill acquired in my role of coordinator (of several projects) and thanks to the many conference presentations performed. In the last years I presented several public speeches on the GW detection

Organisational / managerial skills: Excellent coordination and management skill, developed in all my career.
- leadership (I had the duty to manage teams of ten or hundred elements)

Job-related skills: Capability to solve problems and negotiate solutions. Modeling.

Computer skills: Computer programming (C, Fortran, Matlab, HTML)

ADDITIONAL INFORMATION

Publications
- Author of more than 317 publications in scientific journals and of contributions in two books.

Projects: Advanced Virgo, Einstein Telescope, GraWIToN, ELiTES

Conferences: More than 60 presentations at national and international conferences and workshops

Memberships:
Member of the Gravitational Wave International Committee (GWIC)
Co-Chairman of the 3G subcommittee of the GWIC
Member of the Virgo Steering Committee (VSC-wide)
Coordinator for the INFN Perugia unit in the INFN Astro-particle Scientific Committee (CSN2)
Observer of the CSN2 in the INFN Computing and Network Committee (CCR)
Member of the INFN CNAF-Tier1 referee committee

Prizes: Breakthrough prize 2016 for the detection of GW

Abilitazione scientifica nazionale (2012) 02/A1 "Fisica Sperimentale delle Interazioni Fondamentali", Ia Fascia.

Europass Curriculum Vitae

Personal information

Surname(s) / First name(s)	**Cutini, Sara**
Nationality(-ies)	Italy

Occupational field

Researcher in High Energy Astrophysics and Space Science

Work experience

2018– Now	INFN Researcher (T.I.) Level III on astrophysical data analysis at INFN Sec. Perugia
Occupation or position held	Astrophysical researcher
Main activities and responsibilities	Astrophysical Researcher exploiting Fermi Gamma-ray Space Telescope gamma-ray data in the context of multi-messenger era.
Name and address of employer	INFN
Type of business or sector	Astrophysics and space observation
2015– 2018	INFN Researcher (T.D.) on Fermi-LAT Data analysis at ASI Science Data Center C/O ASI
Occupation or position held	Archive Scientist/Astrophysical researcher
Main activities and responsibilities	Astrophysical Researcher exploiting Fermi Gamma-ray Space Telescope gamma-ray data, coordinator of extragalactic science groups inside the Fermi-LAT collaboration
Name and address of employer	INFN
Type of business or sector	Astrophysics and space observation
2010–2015	INAF Researcher (Young Scientist) on Fermi-LAT Data analysis at ASI Science Data Center C/O ESA ESRIN.
Occupation or position held	Archive Scientist/Astrophysical researcher
Main activities and responsibilities	Astrophysical Researcher exploiting Fermi Gamma-ray Space Telescope, Swift Gamma-ray burst mission satellites and AGILE (Astro-rivelatore Gamma a immagine leggero) data. Analysis software developer for astronomical data. Help desk activity on data analysis and scientific tools to the scientific community.
Name and address of employer	INAF/ASI
Type of business or sector	Astrophysics and space observation
2008–2010	CIFS Collaborator on Fermi-LAT Data analysis at ASI Science Data Center C/O ESA ESRIN.
Occupation or position held	Archive Scientist/Astrophysical researcher
Main activities and responsibilities	Astrophysical Researcher exploiting Fermi-LAT gamma-ray data. Analysis software developer for astronomical data. Help desk activity on the Fermi-LAT data analysis for the scientific community.
Name and address of employer	INAF/ASI

Type of business or sector	Astrophysics and space observation
2005−2008	INAF Collaborator as Archive Scientist and researcher on Fermi-LAT and AGILE-GRID Data analysis at ASI Science Data Center C/O ESA ESRIN.
Occupation or position held	Archive Scientist/Astrophysical researcher
Main activities and responsibilities	Astrophysical Researcher exploiting Fermi Gamma-ray Space Telescope, Swift Gamma-ray burst mission satellites and AGILE (Astro-rivelatore Gamma a immagine leggero) data. Analysis software developer for astronomical data. Help desk activity on data analysis and scientific tools to the scientific community.
Name and address of employer	INAF/ASI
Type of business or sector	Astrophysics and space observation
2004	Summer Student DOE/INFN Exchange at SLAC, Menlo Park, California, US.
Occupation or position held	Summer Student in physics
Main activities and responsibilities	Calibration and test of the first tower of GLAST (Gamma Large Area Space Telescope) using simulated data and cosmic muons
Name and address of employer	SLAC
Type of business or sector	Instrument Integration and Calibration

Education and training

January 2009	Discussion of P.h.D. thesis on Physics at University of Perugia
Title of qualification awarded	P.h.D. in physics
Principal subjects/Occupational skills covered	Data exploitation and data analysis of The Fermi Gamma-ray Space Telescope, formerly GLAST and Swift Gamma-ray burst mission satellites. Investigation on the nature and the properties of Gamma-ray burst using X-ray and Gamma-ray data in different time scales.
Name and type of organization providing education and training	University of Perugia, Italy
Level in national or international classification	ISCED 6
September 2007	National School of Astrophysics, San Servolo, Venice, Italy: “Fundamental physics using Gamma-ray bursts The atmospheres of the terrestrial planets”
July 2006	P.h.D School, Perugia, Italy: "Gamma-astrophysics and Multi-frequency: data analysis and astroparticles studies"
October 2005	Discussion of graduation thesis on Physics at University of Perugia
Title of qualification awarded	Graduate in physics
Principal subjects skills covered	Calibration and study of the response function of the first tower of GLAST using cosmic muons and simulated data. Study of the misalignment of the layers of the tower with muons.
Name and type of organization providing education and training	University of Perugia, Italy
Level in national or international classification	ISCED 5A
February 2005	P.h.D School, Turin, Italy: "XV school of particles detectors
August 2004	XXXIII SLAC Summer School, SLAC, California, US: "Greatest Puzzles of Nature”
July 1999	School degree
Title of qualification awarded	High School Diploma
Name and type of organization providing education and training	Liceo Scientifico Galeazzo Alessi, Perugia, Italy

Level in national or international classification: ISCED 3A

Skills and competences

Mother tongue(s): **Italian**

Other language(s): English

Self-assessment *European level*(*)	Understanding		Speaking		Writing
Language	Listening	Reading	Spoken interaction	Spoken production	
Other language(s)	C1	C2	C1	C1	C2

Spanish

Self-assessment *European level*(*)	Understanding		Speaking		Writing
Language	Listening	Reading	Spoken interaction	Spoken production	
	A1	A2	A1	A1	A2

(*) *Common European Framework of Reference (CEF) level*

Social skills and competences: Strong ability to work in an international environment with colleagues from different cultures and nationalities. Participation in wine-tasting events as a professional sommelier.

Organisational skills and competences: Ability to follow Project Management, Risk Management and Change Management methodologies.
Experience in organization of international astrophysical symposium, workshop meeting and scientific events.

Technical skills and competences: Data analysis in Astrophysics and astronomical data, particularly in Gamma-Ray observations; Simulation analysis; Instrument calibration and testing; machine learning Tecninque applied on astrophysical data.

Computer skills and competences: Object oriented programming languages. Script programming. Python and several specific packages.
Specific software for astrophysical data reduction: TopCat, browse, FTOOLS, XANADU software. Science tools of relative missions: package for the data analysis and reduction Swift (BAT - XRT), package for the data analysis and reduction AGILE GRID package for the data analysis and reduction GLAST (LAT - GBM).
Linux, Mac OS-X UNIX, Microsoft Windows.
Graphic editors and support software for data visualization and analysis: LaTeX, Microsoft Office Suite, gimp, qdp e grace pyhton-matplot and ROOT

Teaching competences: MIUR-ASN Qualification FIS/01. Teaching exercises lessons on introduction at the general physics.

Editorial competences: Peer referee for International Journals

Driving licence(s): B1

Publications and proposals

Pubblication: Author of 217 referred publications on International Journals (Astrophysical Journal, Astronomy & Astrophysics, Science and Nature), Author of 189 not-referred publications (Astronomers Telegrams, GCN Circulars, conference proceeding and technical notes). Hirsch index is equal to 83.

Approved proposal as Principal investigator

2019-2021	Fermi-LAT Electromagnetic Follow-up of Gravitational Waves (Bando per progetti congiunti di ricerca di Grande Rilevanza tra Italia e Stati Uniti - Ministro degli Affari Esteri e della Cooperazione internazionale). PGR000806 - Approved with a grant of 104k euros per year
2017	XMM Observation to reveil the nature of unknown 2FHL sources (Approved)
2016	Radio Observation of morphology of the jets with EVN of S5 1803+78 (Approved)
2016	Fermi-GI Proposal: VERITAS Observation of PG 1553+113 dureing the predicted maximum (Approved)
2012	Radio Observation with MEDICINA of 2FGL 1544.5-1126 UHB Blazar Candidate (Approved)

Awards

2015	Member of Top Italian Scientist
2011	Bruno Rossi Prize to Fermi-LAT Team: for enabling, through the development of the Large Area Telescope, new insights into neutron stars, supernova remnants, cosmic rays, binary systems, active galactic nuclei, and gamma-ray bursts
2010	Group Achivement awarded by NASA to Fermi Science Team: For the successful launch and early opertion of the Fermi mission and discover of new high energy gamma ray sources.
2004	Certificate of appreciation released by NASA: Presented to Sara Cutini in recognition of your outstanding contribution and dedication to the successful development of the Gamma-ray Large Area Telescope (GLAST)

Additional information

2007	Course of Project Management, Project Risk Management, Project Change Management. ESA ESRIN; Frascati, RM, Italy

Personal Interests

Wine and beer tasting: Diploma of Sommelier and certificate of participation in a course of beer tasting. Reading, jogging and last but not least playing with my children.

Giuseppe
Greco

DATE OF BIRTH:
24/02/1977

CONTACT

Nationality: Italian

VIa A. Pascoli
06123 Perugia, Italy

giuseppe.greco@pg.infn.it

Skype: skype

europass

WORK EXPERIENCE

01/09/2020 – CURRENT – Perugia, Italy

Tecnologo di terzo livello

Istituto Nazionale di Fisica Nucleare - sezione di Perugia

Multimessenger analysis of LIGO / Virgo data in association with data from astronomical observatories and satellites. Definition of the Einstein Telescope's multimessenger astronomy potential (AHEAD2020.).

01/04/2014 – 15/04/2020

Postdoctoral Researcher in the Astrophysics (Multimessenger)

University of Urbino "Carlo Bo"

- Member of the LIGO and Virgo Collaboration.
- Research activity in the EU ASTERICS project WP DADI.
- Research activity in the EU ESCAPE project WP CEVO.
- Member of GRAWITA (GRAvitational Wave Inaf TeAm) .
- Member of ENGRAVE (Electromagnetic counterparts of .gravitational wave sources at the Very Large Telescope).

Urbino, Italy

01/02/2010 – 31/01/2014

Postdoctoral Researcher in Astrophysics (High Energy)

National Institute of Astrophysics - Bologna Astronomical Observatory - INAF

- Time domain astronomy.
- Development and data analysis of TORTORA telescope (ESO-La Silla).
- Visiting Research at SAO RAS - Special Astrophysical Observatory of the Russian Academy of Science.
- Visiting Research at gOlem working group at the Merate Observatory (Italy).
- Research in chaotic dynamic in the GRB prompt emission.
- P.I. Target of Opportunity at the G. Cassini telescope, Loiano (Italy).

Bologna, Italy

01/01/2006 – 30/04/2009

PhD student - PhD student in Astronomy - Ciclo XXI

University of Bologna Alma Mater Studiorum - Department of Astronomy

Multiwavelength study of GRB emissions and TORTORA Project

Bologna, Italy

20/07/2008 – 20/10/2008

PROGRAMMA MARCO POLO: funded by the Alma Mater Studiorum Bologna University for the training of young researchers abroad

SAO RAS - Special Astrophysical Observatory of the Russian Academy of Science

Search for and investigation of fast optical variability of relativistic object. Supervisor: G. Beskin.

Nizhnij Arkhyz, Russia

01/06/2004 – 31/12/2004

Contratto di Collaborazione Contributivo "Construction and installation of a wide-field telescope with high temporal resolution - TORTORA"

University of Bologna Alma Mater Studiorum - Department of Astronomy

- Development fast photometry strategy in large field of view

Bologna, Italy

01/06/2005 – 31/12/2005

Contratto di Collaborazione Contributivo "construction and installation of a wide-field telescope with high temporal resolution - TORTORA"

University of Bologna Alma Mater Studiorum - Department of Astronomy

- Visiting student at SAO RAS - Special Astrophysical Observatory of the Russian Academy of Science.

Bologna, Italy

EDUCATION AND TRAINING

30/04/2009 – Bologna, Italy

PhD in Astronomy

University of Bologna Alma Mater Studiorum

Faculty of Mathematical, Physical and Natural Sciences - Bologna University - Department of Astronomy

12/03/2004 – Bologna, Italy

Master's degree in Astronomy

University of Bologna Alma Mater Studiorum

Faculty of Mathematical, Physical and Natural Sciences - University of Bologna - Department of Astronomy

31/07/1997 – San Marco in Lamis, Italy

Maturità Scientifica

Liceo Scientifico E. Fermi

PUBLICATIONS

Publications

(Co)author of 147 publications with *h-index* = 43 (data from Scopus)

DIGITAL SKILLS

Microsoft Office: Word, Excel, Access, Power Point, Outlook. | Python for statistic | R Software | Astronomical image processing, python and IRAF | Basic Image editing (GIMP)