

PERSONAL INFORMATION

Ivan De Mitri

Full Professor – Experimental Astroparticle Physics (SC 02/A1 - SSD FIS/01)


 Gran Sasso Science Institute (GSSI) – Via Iacobucci 2, L'Aquila, Italy

 <https://www.gssi.it/people/professors/lectures-physics/item/1204-de-mitri-ivan>

High Energy Cosmic Rays, Gamma-ray Astronomy, Neutrino (astro)physics, Dark Matter searches, Particle Detectors, Statistics and Data Analysis, Medical Imaging, Interdisciplinary applications, Outreach.

SCIENTIFIC INTERESTS

I am currently leading the GSSI group for the experimental study of the cosmic radiation through several projects including AUGER, DAMPE, HERD and NUSES. I have published more than 400 papers on peer reviewed scientific journals (h-index 73, Scopus, November 2024) and presented the corresponding results to about 50 national and international conferences, with many invited talks, and several seminars.

SHORT PROFILE

Full professor of Experimental Physics of Fundamental Interactions at GSSI, my scientific activity focused since the beginning on Astroparticle and Neutrino Physics. I graduated in Physics at University of Lecce in 1993 and got my PhD in 1997 at University of L'Aquila, working within the MACRO collaboration, one of the first generation experiments at Laboratori Nazionali del Gran Sasso (LNGS) studying high energy cosmic rays, atmospheric neutrino oscillations and searching for GUT magnetic monopoles. I then earned an INFN post-doc fellowship at LNGS within the ICARUS experiment, working on the setup for LAr purity monitoring and the detector simulation for atmospheric and long baseline neutrino studies. In 1999 I moved to the University of Salento as assistant (and then associate) professor and joined the study of gamma-ray astronomy and cosmic ray physics with the ARGO-YBJ experiment in Tibet. As member of the INFN National Committee for Technological and Interdisciplinary Research (Commissione V), I led the INFN Lecce group of the Magic-5 experiment developing Computer Aided Detection systems in medical image analysis. Since 2005 I am a member of the AUGER collaboration, the largest ground based EAS detector for the study of the cosmic ray flux at the highest energies. I led the INFN Lecce group in the DAMPE experiment, studying galactic cosmic rays and searching for indirect dark matter signatures with a satellite on orbit since December 2015. Since 2011 to 2018 I have been member of the INFN National Scientific Committee for Astroparticle and Neutrino Physics (Commissione II), as coordinator for the activities of the Lecce group.

Since February 2018 I am at GSSI, where I teach Experimental Methods for High Energy Astroparticle Physics. From 2018 to 2023 I have been the Chair of the GSSI PhD program in Astroparticle Physics and elected as member of the GSSI Academic Senate. Since 2022 I'm also member of the PhD board of the National Doctorate in Space Science and Technology and since 2023 member of the PhD board on Innovative technologies for space missions and radiation detections at GSSI.

Starting from 1999, I have taught Experimental Methods for Nuclear and Subnuclear Physics, Classical Mechanics and Electrodynamics to undergraduate students and Astroparticle Physics to PhD students. I supervised more than 25 undergraduate/PhD students and post-docs, and since 2005 I have been member of PhD boards at University of Salento, then at GSSI. I am currently leading the GSSI group for the experimental study of the cosmic radiation through several projects including AUGER, DAMPE, HERD and NUSES.

WORK EXPERIENCE

From Feb 2018

Full Professor – Experimental Astroparticle Physics (SC 02/A1 - SSD FIS/01)

Gran Sasso Science Institute (GSSI), L'Aquila, Italy - www.gssi.it

- Head of the group for the Experimental study of cosmic radiation
- Chair of the Astroparticle Physics PhD board (till 2023)
- Member of the Academic Senate (till 2023)
- President of the GSSI Nucleo di Valutazione (from 2023)
- Coordinator of the INFN GSSI activities (from 2023)

- From 2014 to 2018 Associate Professor – Experimental Astroparticle Physics (SC 02/A1 - SSD FIS/01)**
Università del Salento, Dipartimento di Matematica e Fisica
- Head of the group of the DAMPE experiment
 - Head of the INFN-Lecce Astroparticle Physics group
 - Member of the Astroparticle Physics National Committee of the Istituto Nazionale di Fisica Nucleare (INFN)
- From 1999 to 2014 Assistant Professor – Experimental Astroparticle Physics (SSD FIS/04)**
Università del Salento, Dipartimento di Matematica e Fisica
- Head of the Head of the INFN-Lecce Astroparticle Physics group
 - Head of the Head of the INFN-Lecce Technology and Interdisciplinary group
 - Member of the Astroparticle Physics National Committee of the Istituto Nazionale di Fisica Nucleare (INFN)
 - Member of the Technology National Committee of the Istituto Nazionale di Fisica Nucleare (INFN)
- From 1997 to 1999 INFN Post-doc Fellowship**
Laboratori Nazionali del Gran Sasso
- Member of the MACRO and ICARUS experiments

MAIN PROFESSIONAL SERVICES

- From 2023 President of the GSSI Nucleo di Valutazione (Evaluation Committee)
- From 2023 Coordinator of the INFN activities at GSSI
- From 2023 Member of the GSSI PhD board in Innovative technologies for space missions and radiation detection
- From 2022 Member of the PhD board of the National Doctorate in Space Science and Technology
- 2018-2023 Member of the Academic Senate, Gran Sasso Science Institute
- 2018-2023 Chair of the PhD program in Astroparticle Physics, Gran Sasso Science Institute
- From 2018 Member of the PhD board in Astroparticle Physics, Gran Sasso Science Institute
- From 2014 Member of the Academic Council of the International Doctorate Network on Particle physics, Astrophysics and Cosmology (IDPASC)
- From 2014 Member of the Scientific Advisory Committee of the International Doctorate Network on Particle physics, Astrophysics and Cosmology (IDPASC)
- 2014-2018 Observer in the INFN National Scientific Committee I, from the Committee II
- 2011-2018 Member of the INFN National Scientific Committee II
- 2005-2018 Member of the Collegio dei Docenti, Dottorato in Fisica, Università del Salento
- 2008-2012 Member of the Giunta di Dipartimento di Fisica, Università del Salento
- 2007-2012 Member of the Commissione Tesi, CdL Fisica, Università del Salento
- 2007-2008 Observer in the INFN National Scientific Committee II, from the Committee V
- 2002-2008 Member of the INFN National Scientific Committee V
- 1999-2003 Member of the Commissione Tutorato, CdL Fisica, Università del Salento

EXPERIMENTS – MAIN SERVICES IN SCIENTIFIC COLLABORATIONS

- From 2021 NUSES Co-Principal Investigator
- From 2021 NUSES Member of the Technical board
- From 2021 NUSES Member of the Institution Leader Board
- From 2016 HERD (Galactic CR and DM in space), International Joint Working Group Member
- From 2015 HERD (Galactic CR and DM in space), Group Leader
- From 2015 HERD (Galactic CR and DM in space), Collaborator
- From 2015 DAMPE (Galactic CR and DM in space), International Board Member

- From 2015 DAMPE (Galactic CR and DM in space), Group Leader
- From 2014 DAMPE (Galactic CR and DM in space), Collaborator
- 2009-2014 AUGER (UHECR, ground-based), Task Leader
- From 2005 AUGER (UHECR, ground-based), Collaborator
- 2003-2010 MAGIC-5 (Medical Imaging), Steering Committee Member
- 2003-2010 MAGIC-5 (Medical Imaging), Group Leader
- 2003-2010 MAGIC-5 (Medical Imaging), Collaborator
- 2012-2022 ARGO-YBJ (CR and γ -astronomy, ground-based), Editorial Board Member
- 1999-2022 ARGO-YBJ (CR and γ -astronomy, ground-based), Collaborator
- 1999-2001 ICANOE (Atmospheric and Long Baseline ν underground), Collaborator
- 1997-1999 ICARUS (p decay and ν underground), Collaborator
- 1994-2003 MACRO (CR and ν undergr.), Resp. for the Lateral Streamer Monopole Trigger
- 1993-2002 MACRO (CR and ν underground), Rare Particle Working Group Member
- 1992-2002 MACRO (CR and ν underground), Collaborator

REVIEWER / MEMBER OF SELECTION COMMITTEES

- Reviewer for the journal: Astroparticle Physics
- Reviewer for the journal: European Journal of Physics
- Reviewer for the journal: Nuclear and Particle Physics Proceedings
- Reviewer for the journal: Nuclear Physics B
- Reviewer for the journal: Advances in High Energy Physics
- Reviewer for the journal: Advances in Space Research
- Reviewer for the journal: Chinese Physics C
- Reviewer for the journal: European Physics Letters
- Reviewer for the journal: Journal of Cosmology and Astroparticle Physics
- Reviewer for the journal: Review of Scientific Instruments
- Reviewer for the journal: Nuovo Cimento C
- Reviewer for the journal: Nuclear Science and Techniques
- Reviewer for the journal: Nuclear Instruments and Methods in Physics Research
- Reviewer for the Swiss National Science Foundation
- Reviewer for the UK Royal Society
- Reviewer for the Natural Sciences and Engineering Research Council of Canada
- 2018 Reviewer for INFN "Fellini" post-doc fellowships
- 2017 ASI referee for the CALET experiment
- 2016 Reviewer ANVUR VQR 2011-2014 –GEV2
- 2013 Reviewer ANVUR VQR 2004-2010 –GEV2
- From 2011- INFN Referee for the CTA experiment
- From 2011- INFN Referee for the FERMI experiment
- 2011-2018 INFN Referee for the JEM-EUSO experiment
- 2011-2013 INFN Referee for the AGILE experiment
- 2003-2011 INFN Referee for about 15 experiments within Scientific Commission V
- From 1999 Member of the selection committee for different positions (PhD students, post-doc, researchers, associate professors, full professors) in many Italian Universities, INFN and ASI

AWARDS

- 2017 Most valued reviewer, Astroparticle Physics, Elsevier
- 2013 Most valued reviewer, Astroparticle Physics, Elsevier
- 2012 Most valued reviewer, Astroparticle Physics, Elsevier

CERTIFICATIONS

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- Jan. 2014 Abilitazione Scientifica Nazionale a Professore di Prima Fascia
settore 02/A1 - Fisica Sperimentale delle Interazioni Fondamentali
- Dec. 2013 Abilitazione Scientifica Nazionale a Professore di Prima Fascia
settore 02/B3 - Fisica Applicata
- Jan. 2014 Abilitazione Scientifica Nazionale a Professore di Seconda Fascia
settore 02/A1 - Fisica Sperimentale delle Interazioni Fondamentali
- Dec. 2013 Abilitazione Scientifica Nazionale a Professore di Seconda Fascia
settore 02/B3 – Fisica Applicata
- Dec. 2014 Abilitazione Scientifica Nazionale a Professore di Seconda Fascia
settore 02/C1 – Astronomia, Astrofisica, Fisica della Terra e dei Pianeti

FELLOWSHIPS SELECTIONS

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- 1997 National INFN post-doc fellowship
- a.y. 1993-'94 PhD fellowship, Università degli Studi dell'Aquila
- a.y. 1993-'94 PhD fellowship, Università degli Studi di Perugia
- a.y. 1993-'94 PhD fellowship, Università degli Studi di Cosenza

EDUCATION AND TRAINING

- From 1993 to 1997 **PhD in Physics**
University of L'Aquila, Italy
 - Trigger system test and monitoring
 - Detector simulation
 - Data analysis
- From 1988 to 1993 **Master in Physics**
Università del Salento, Lecce, Italy
 - Nuclear and particle physics
 - Radiation detectors
 - Trigger design
 - Simulation and data analysis

Personal data According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

L'Aquila, November 20, 2024

Ivan De Mitri

