PERSONAL INFO Emanuele Scifoni

Primo Ricercatore, TIFPA - INFN Trento Institute for Fundamental Physics and Applications, Istituto Nazionale di Fisica Nucleare - Professore a Contratto Dipartimento di Fisica Universita' di Trento

2002– 2005	***PhD in Scienze Chimiche*** (Molecular Quantum Physics), Universita' di Genova, Italia
2004	***Visiting Research Fellow*** al Max Planck Institute for non Linear Dynamics, Goettingen, Germania
2005 – 2006	***Assegnista di Ricerca*** all' Istituto Nazionale di Fisica della Materia (INFM), Roma
2006 – 2007	***Marie Curie Experienced Researcher*** (ER) fellowship al Grenoble Astrophysics Lab (LAOG), University J. Fourier, Grenoble, Francia
2007 – 2010	***FIAS Junior Research Fellow*** al Frankfurt Institute for Advanced Studies, Goethe University, Germania
2010 – 2015	***Senior post-doc*** al GSI – Helmholtz Center for Heavy Ion Research, Darmstadt, Germania
2016 – 2019	***Primo Ricercatore TD*** a TIFPA-INFN, Trento Institute for Fundamental Physics and Applications, Istituto Nazionale di Fisica Nucleare, Italia
2016 – 2017	***Professore a Contratto*** Dipartmento di Fisica, University of Trento, Titolare del corso "Radiation Biophysics"
2017	***Abilitazione Scientifica Nazionale*** *a Professore Associato in Fisica Applicata*
2018	***Abilitazione Scientifica Nazionale*** *a Professore Ordinario in Fisica Applicata*
2019 – presente	***Primo Ricercatore TI*** a TIFPA-INFN, Trento Institute for Fundamental Physics and Applications, Istituto Nazionale di Fisica Nucleare, Italia
2019- presente	***Membro del Collegio di dottorato*** *e professore del corso PhD "Radiation Chemistry"*
2021- presente	***Coordinatore Locale di per la Commissione Scientifica Nazionale 5 (CSN5)***
2022-presente	***Professore a Contratto*** Dipartmento di Fisica, University of Trento, Titolare del corso "Radiation: Detection and Applications"

Emanuele Scifoni si è laureato in chimica a Roma e ha conseguito il Dottorato di Ricerca in scienze chimiche all'Universita' di Genova con una tesi di chimica fisica quantistica. Dopo una formazione e prima parte della carriera scientifica principalmente basata su fisica molecolare e astrochimica, principalmente con metodi teorici e computazionali, dal 2007, spostandosi al (Frankfurt Institute for Advanced Studies, Goethe University), ha focalizzato i suoi interessi nei modelli biofisici per la radiazione, in particolare su fasci di ioni per l'Adroterapia. Ha sviluppato e esteso ulteriormente questa ricerca, spostandosi al Biophysics Department del GSI (Helmholtz Center for Heavy Ions research) in Darmstadt, dove ha portato avanti anche un'intensa attività su simulazioni di ion track structure, dosimetria, modeling e verifiche sperimentali con irraggiamenti di ioni a energie terapeutiche e ha preso parte fondamentale agli sviluppi più avanzati di importanti codici per la struttura di traccia (TRAX) e per il treatment planning di particelle (TRiP98). Infine, e' arrivato a Trento nel Maggio 2016 come Primo Ricercatore al TIFPA-INFN, Trento Institute for Fundamental Physics and Applications, e Contract Professor alla Universita' di Trento.
Le sue piu' recenti attivita' di ricerca si concentrano su modelli biofisici e treatment planning biologico per protoni e altre particelle cariche e sulla comprensione meccanicistica della FLASH radiotherapy, sulla quale ha già pubblicato diversi lavori di riferimento per il settore.

E' attualmente PI per il Progetto "Call" INFN project Call "MoVe IT"- Modeling and verification for Ion Beam Treatment Planning – (che coordina circa 40 ricercatori) finanziato inizialmente per 3 anni e poi esteso per altri 2 fino al 2021, e ha contribuito a molti progetti e grant di successo europei ed internazionali nel campo dell'adroterapia, come EU COST proposal "nano-IBCT" – nanoscale insights in ion beam cancer therapy – 2010-2014 e il Marie Curie ITN

"ARGENT" – Advanced radiotherapy generated by exploiting nanoprocesses and technologies – 2014-2018, per il quale è stato Workpackage Leader. E' inoltre attualmente workpackage leader per la Call INFN NEPTune, Cosupervisore per il Marie Curie Individual fellowship Nanoenhancement e Responsabile Locale per il progetto Horizon2020 STRONG. Da 2022 e' Responsabile Locale e WP leader per la Call "FRIDA" su FLASH radiotherapy.

Ha presentato oltre 40 contributi orali a congressi e scuole internazionali e ha una lunga esperienza didattica maturata con lezioni a diversi corsi universitari, come assistente a "La Sapienza" (Roma) e alla Darmstadt University of Technology (TUD) e titolare alla Universita' di Trento, e nell'organizzazione di International Training Courses per PhD students. Ha co-supervisionato 5 PhD e 8 Master students, fra Germania e Italia ed è membro del Collegio di Dottorato dell'Università di Trento.

Ha pubblicato oltre **90** articoli in riviste peer reviewed, (**h**-index **26**, **2500** citazioni (*)), incluse diverse reviews su invito, e articoli in collaborazione con tutti i maggiori centri di adroterapia del mondo come HIT, NIRS, MedAustron e CNAO. E' referee abituale per molti giornali che spaziano dalla fisica medica alla fisica nucleare e molecolare ed è stato revisore in qualita' di esperto internazionale di numerosi progetti di ricerca e dottorati internazionali. E' Associated Editor di Frontiers in Physics, Guest Editor per Nanomaterials e European Physical Journal D, e Editorial Board Member per Frontiers is Oncology, sezione Radiation Therapy e Frontiers in Physics. Ha recentemente ottenuto l'Abilitazione Nazionale per il settore Fisica Applicata (FIS07) sia come Professore di I fascia (ordinario) che di II fascia (associato). Dal 2021 e' coordinatore locale per la Commissione Scientifica Nazionale 5 dell'INFN.

(*) Full Publication Record a: https://www.researchgate.net/profile/Emanuele_Scifoni http://orcid.org/0000-0003-1851-5152

Ester Ricci

Contact

Education

2016 -2020
Università degli studi di Trento, PhD in Physics,
Thesis: The passage from microstrip to pixel silicon detector for tracking particles in space
Supervisor: Prof. Roberto Iuppa

2014-2016
Università degli studi di Roma “Tor Vergata”, MD in Physics,
Thesis: Search for double beta decay of ^{106}Cd. Monte Carlo simulation and cosmogenic activation of the $CdWO_4$
Supervisors: Prof. Rita Bernabei, Dr. Fedor Danevich

2009-2014
Università degli studi di Firenze, BD in Physics and Astrophysics,
Thesis: Study of a NaI(Tl) scintillator by means of Compton coincidence measurements.
Supervisor: Dr. Gabriele Pasquali

Employment

June 2020-Ongoing
Postdoc researcher (RTDa)
Università degli studi di Trento, dipartimento di Fisica

Schools

October 22-27, 2017
V International Geant4 school
Laboratori Nazionali del Sud, Catania, Italy

October 16-18, 2017
SQUAD 2017, School on advanced quantum detectors
Fonazione Bruno Kessler, Trento, Italy

June 12-16, 2017
International School of Space Science, course on Cosmic Ray Physics in space
GSSI, L'Aquila, Italy

Research Experience

My current research activity focuses on the construction and test of the first MAPS-based tracker for space applications. The tracker will be installed on the HEPD-02 detector, a payload of CSES-02 satellite. I characterised the response of the detector with measurements at test beams. I developed Monte Carlo simulations and finite element calculations to interpolate experimental results.

2016-Ongoing
LIMADOU collaboration

- Characterisation of HEPD-01 tracker response
- HEPD-01 tracker Quick Look software development and mantainance
- Search for particle burst inside HEPD-01 data
- Characterisation of ALPIDE detector to low energy nuclei: GEANT4 and TCAD simulations
- Space compliance tests on HEPD-02 tracker prototypes
- HEPD-02 new tracker performance simulation
- HEPD-02 tracker assembly and characterisation of the detector
- HEPD-02 data quality manager

2017-Ongoing
ATLAS collaboration

- Qualification task: Studies on improvement of alignment in the calibration loop.
- Preparation of setup for ITk Upgrade modules qualification

2019-Ongoing
ARCADIA collaboration

- Monitoring of the design compliance to space application requirements
- DAQ development
- Tests of the new detector

March-April 2016
DAMA collaboration
Stage: Simple Monte Carlo studies of the response of a HPGe detector

Coordination and responsibilites

January 2024 – Ongoing
Data quality manager of HEPD-02 detector

March 2024 – Ongoing
Responsible of qualification for tests of ATLAS ITk 3D pixels

June 2020-December 2023
In charge of test and calibration workpackage of HEPD-02 detector

December 2018-January 2019
Coordination of beam test activities
Trento Proton Therapy Center, Trento
Characterisation of ALPIDE response to low energy protons

June 2018
Coordination of beam test activities
Laboratori Nazionali del sud, Catania
Characterisation of ALPIDE response to low energy nuclei

November 2016-Ongoing
Coordination of clean room activities of Astroparticle Physics group
TIFPA, Trento

Teaching

September 2023 – Ongoing
Laboratorio di fisica II
Università degli studi di Trento, course of BD in Engineering (Electronics, Informatics, Communications)

February 2022-Ongoing
Laboratorio di fisica I
Università degli studi di Trento, course of BD in Physics

February 2021-June 2023
Experimental techniques for Nuclear and subnuclear physics
Università degli studi di Trento, course of MD in Physics

February – September 2017
Tutoring
Università degli studi di Trento, “Laboratorio di fisica I” course of BD in Physics

February – June 2016
Tutoring
Università degli studi di Roma “Tor Vergata”, “Fisica generale II” course of BD in Chemistry

Outreach

2017- Ongoing
Local coordinator
International Masterclass – Hands on particle physics
Università degli studi di Trento and INFN-TIFPA local coordinator

May 2021
Speaker for online event
Pint of science Italy
Online event

February 2021
Speaker and moderator for online event
International day of women and girls in science
Physics department of Università degli studi di Trento
February – March 2017
Organisation of conference
"Da dove nasce una scoperta"
Università degli studi di Trento

February – March 2017
Teaching activity for high school students
CLIL project
Liceo Scientifico L. Da Vinci, Trento (Italy)

Early track record

- 10 contributions at international conferences
- 476 papers published on international journals since 2018
- Total citations: 1378
- Hirsch (H) index: 61

Data from Scopus, accessed in March, 2024

Selected publications

E. Ricci et al. "Updates on long-term alignment monitoring and diagnostics for ATLAS ID misalignments." *Nuovo Cim.* 42 (2019): 202.
My contribution: monitoring of time evolution of ATLAS Inner Tracker endcap misalignment

E. Ricci et al. "ALPIDE for space applications: Power consumption." *Nuovo Cim.* 42 (2019): 42.
My contribution: Main author

E. Ricci, et al. "Scientific Goals and In-orbit Performance of the High-energy Particle Detector on Board the CSES." *The Astrophysical Journal Supplement Series* 243.1 (2019): 16.
My contribution: Tracker calibration

E. Ricci, et al. "The HEPD particle detector of the CSES satellite mission for investigating seismo-associated perturbations of the Van Allen belts." *Science China Technological Sciences* 61.5 (2018): 643-652.
My contribution: Tracker calibration

E. Ricci et al. "iMPACT: An innovative tracker and calorimeter for proton computed tomography." *IEEE Transactions on Radiation and Plasma Medical Sciences* 2.4 (2018): 345-352.
My contribution: Analysis of data collected with the ALPIDE detector

Conference organisation

September 6-8, 2021
11th Young researcher meeting
Online

Conferences

September 13-21, 2021
107º Congresso nazionale SIF
Online
Talk: The HEPD-02 detector onboard the CSES-02 satellite.

October 14-17, 2019
IPRD19
Siena, Italy
Talk: Low energy nuclei detection with ALPIDE detector

February 25-27, 2019
“Trento” Workshop on Advanced Silicon Radiation Detectors
Fondazione Bruno Kessler, Trento, Italy
Talk: Parametrisation of the response of ALPIDE Monolithic Active Pixel Sensors to low energy nuclei

September 17-21, 2018
104º Congresso nazionale SIF
Università della Calabria, Arcavacata di Rende, Italy
Talk: Monolithic Active Pixel Sensors for tracking of low energy nuclei: ALPIDE test beam.

July 14-21, 2018
COSPAR2018
Pasadena (CA), USA
Talk: Ideas and solutions for a next generation High Energy Particle Detector for CSES mission
Talk: A novel approach for tracking particles in space

April 4-6, 2018
IFAE
Università di Milano “Bicocca”,Milano, Italy
Poster: Updates on long-term alignment monitoring and diagnostics for ATLAS ID misalignments.
Poster: Un tracciatore per particelle cariche nello spazio basato sul sensore ALPIDE.

February 28, 2018
133rd LHCC Meeting
CERN, Geneva, Switzerland
Poster: Updates on long-term alignment monitoring and diagnostics for ATLAS ID misalignments.

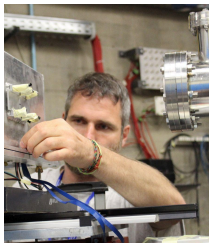
February 19-21, 2018
“Trento” Workshop on Advanced Silicon Radiation Detectors
Max Planck institute fur Physik, Munich, Deutschland
Talk: Monolithic Active Pixel Sensors for space applications: the case of ALPIDE.

September 11-15, 2017
103º Congresso nazionale SIF
Università degli studi di Trento, Trento, Italy

Talk: Strategy for the Limadou HEPD event reconstruction.

PERSONAL INFORMATION

Francesco Nozzoli



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Enterprise	University	EPR
☐ Management Level	☐ Full professor	☐ Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
☐ Mid-Management Level	☐ Associate Professor	X Level III Researcher and Technologist
☐ Employee / worker level	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

(2017 - current)

Researcher

INFN-TIFPA (Trento)

- INFN & CERN team leader of the AMS-Trento group
- Team Leader of the PHeSCAMI (PRIN) project
- Team Leader of the NUSES-LEM (Low Energy Module) project
- Responsible of the LYSO crystal characterization for HEPD-02
- INFN-TIFPA coordinator Poemma Balloon Radio project (SBP2)
- INFN-TIFPA coordinator for ASI Space Weather Working Group (2018-2021)
- Titular for the course “Experimental Techniques in Nuclear and Subnuclear Physics” (Laurea Magistrale in Physics) University of Trento (2020-current)
- INFN-TIFPA “third mission” coordinator
- INFN-TIFPA researcher representative

Business or sector: Research (SSD FIS/04)

(2015 - 2017)

Researcher TD

INFN-Roma Tor Vergata

- Data analysis of the AMS-02 at ASI-SSDC (ASI Scientific Data Centre)
- Responsible of the antiproton/proton ratio measurement for the AMS-Italy group
- Responsible of the muon decay measurement for the EEE collaboration
- Responsible for the “Solar Wind Map" analysis for China-Italy Moon Mapping project

Business or sector: Research (SSD FIS/04)

(2011 - 2014)

Researcher TD

INFN-Perugia

- Data analysis of the AMS-02 at ASI-SSDC (ASI Scientific Data Centre)
- Development of the anticoincidence counter new reconstruction software for AMS-02
- Development of AMS silicon tracker alignment and positron fraction measurement

Business or sector: Research (SSD FIS/04)

(2009 - 2011) **Contract Professor/Lecturer**

Università degli Studi di Roma “Tor Vergata”

- Titular for the course: “Metodologie Sperimentali per la ricerca di processi rari”. (Laurea Magistrale in Physics).
- Data analysis of the DAMA experiments at the Gran Sasso National Laboratory of INFN

Business or sector: Research (SSD FIS/04)

(2005 - 2009) **Post-doc grant**

Università degli Studi di Roma “Tor Vergata”

- Data analysis of the DAMA experiments at the Gran Sasso National Laboratory of INFN

Business or sector: Research (SSD FIS/04)

EDUCATION AND TRAINING

2001 - 2004 PhD in Physics (INFN grant) *EQF 8*

Università degli studi di Roma “Tor Vergata”

- Thesis: “Investigazione sulla Materia Oscura dell’Universo ai Laboratori Nazionali del Gran Sasso: da DAMA/NaI a DAMA/LIBRA” advisor: Prof. R.Bernabei (Dissertation 08/03/2005)

1997 - 2001 Master degree in Physics (INFN grant) *EQF 7*

Università degli studi di Roma “Tor Vergata”

- Thesis: “Ricerca di assioni solari presso i Laboratori Nazionali del Gran Sasso” advisor: Prof. R.Bernabei (Dissertation 15/05/2001) Rank: 110 cum Laude

WORK ACTIVITIES

Main projects

INFN-TIFPA staff-researcher since 2017, my expertise is detector development and cosmic ray data analysis. I have been involved in astro-particle physics for 20 years contributing both to underground experiments, surface detector arrays and space experiments.
Here a selection of some key activities/results I am/was particularly involved in:
2021-current NUSES: simulation, construction and test of the Low Energy Module.
2018-current ADHD/PHeSCAMI: detector construction, simulation and beam test, measured Helium scintillation components at 200 bar (PRIN-2022 funds)
2017-current LIMADOU: detector beam test, construction of a set-up (and test) to select LYSO scintillators and test of the MAPS tracker for HEPD-02 detector.
2019-current ALADInO: sensitivity to anti-nuclei and optimization for Be isotopes.
2012-current AMS-02 physics analysis: positron fraction, antiproton ratio, high energy electron flux, isotopic composition (3He/4He, deuterium and beryllium) and development of some multivariate regression particle identification tools.
2011-2014 AMS-02 detector: dynamic tracker alignment, anticoincidence detector reconstruction software.
2015-current EEE: Upgoing particle identification, vertex reconstruction software and muon based buildings tomography. Study of muon flux periodicity.
2015-2018 Moon Mapping: measured the flux and composition of the Solar Wind on the Moon analysing data collected by Chang'e-1 top-hat spectrometer.
2001-2011 LNGS hardware activity: construction and data analysis of different underground experiments based on scintillators, for measurements of rare processes related to dark matter, double beta decay and nuclear physics.
Dark matter data analysis: I proposed and analysed new particle hypotheses as: axion-like and light Dark Matter, electron interacting Dark Matter, bound states of Dark Matter, TeV Dark Matter in the dark disk.

Tutoring activities

2019-current Member of the UniTN Doctoral School in Physics.
2019-current member of academic council of International Doctorate Network in Particle Physics, Astrophysics and Cosmology (IDPASC) (https://idpasc.lip.pt)
2022-current Advisor of Master and PhD thesis: R. Nicolaidis: "Development of a cubesat flux meter for sub-MeV cosmic particles" UniTN.
2020 Co-advisor of Master thesis: C. Cernetti: "Measurement of Beryllium isotopic composition in Cosmic Rays with the AMS-02 experiment on the International Space Station" UniTN (https://doi.org/10.1103/PhysRevD.103.L101101)
2019 Co-advisor of thesis: S. Perciballi; "HEPD LYSO Crystal Calibration", (ICRC2021 https://pos.sissa.it/395/583) UniTN
2022 INFN-TIFPA Advisor for the internship: "Caratterizzazione dei cristalli scintillanti in LYSO per HEPD-02"
2021 INFN-TIFPA Advisor for the internship: "Ricerca della cattura elettronica di 176Lu". (https://www.iphysnet.com/wp/yrm/events/11yrm/posters/)
2020 INFN-TIFPA Advisor for the internship: "Studio di fattibilità di ricerca di Materia Oscura mediante interazione diretta in acceleratore di particelle".
2020 INFN-TIFPA Advisor for the internship :"Misura del vento solare misurato dal satellite lunare Chang'e-1" (article: https://doi.org/10.3390/universe7050157)
2020 INFN-TIFPA Advisor for the internship: "Sviluppo di un prototipo di rivelatore per Anti-Deuterio"
2020 INFN-TIFPA Advisor for the internship: "Misura dell'effetto E-W con l'array di telescopi a muoni EEE"

Awards

2008 "Orso Mario Corbino" prize - SIF (Società Italiana di Fisica).
2002 "Tito Maiani" prize - Accademia Nazionale dei Lincei, Rome.
1999 "Enrico Persico" fellowship - Accademia Nazionale dei Lincei, Rome.

Editorial activity

2021 co-editor for the special issue “Dark Matter and Cosmic Rays”(MDPI-J)
2020-current member of the Editorial board for MDPI/Particles journal
2022 Reviewer for 4 articles (Frontiers, applsci, EJP, Universe)
2021 External Reviewer for 2 articles of VQR 2015-2019
2021 Reviewer for 12 articles (PRL, EPJ, EPJP, JINST, Frontiers, and others)
2020 Reviewer for 16 articles (Eur. Phys. J. P and other Journals)
2019 Reviewer for 9 articles (Eur. Phys. J. P and other Journals)
2018 Reviewer for 4 articles (Phys. Rev. D and other Journals)

Recent presentations

[1] 08/11/2023 Coordinating Panel for Adv. Detectors (CPAD2023) SLAC (USA)
“Light yield non-proportionality of LYSO(Ce) scintillators to x/γ rays and measurement of the Birks-Onsager quenching parameters.”
[2] 31/08/2023 XVIII Topics in Astropart. and Und. Phys. (TAUP2023) Vienna
“A novel approach for the direct detection of light Dark Matter using 2β decay experiments”
[3] 20/06/2023 Advances in Space AstroParticle Physics (ASAPP2023) Perugia
“Anti-Deuteron identification in Space with Helium calorimeter”
[4] 16/02/2023 2nd Electronic Conference on Universe (ECU2023) (online)
Parallel talk: “Dark Matter Stimulated Double Beta Decay”
[5] 25/10/2022 5th Eur. Nucl. Phys. Conf. (EUNPC2022) Santiago de Compostela
“Search for Electron Capture of 176Lu with a LYSO scintillator”
[6] 07/07/2022 ASI workshop “L’Impegno Italiano nel Settore dei CubeSat” Roma
“LEM: a Low-Energy particle Monitor to probe ionospheric perturbations”
[7] 02/03/2022 MIAPP workshop “Antinuclei in the Universe?” Munich (DE)
“Anti-Deuteron identification in Space with Helium calorimeter”
[8] 12/07/2021 37th International Cosmic Ray Conference
“A Data-Driven approach for the measurement of ^{10}Be/^{9}Be flux ratio in Cosmic Rays with magnetic spectrometers”
[9] 12/07/2021 37th International Cosmic Ray Conference
“An Helium calorimeter for Anti-Deuteron identification in cosmic rays”
[10] 14/09/2021 Global Conference on Physics (Physics-2021) (online)
“Moon Mapping Project Results on Solar Wind Ion Flux and Composition”
[11] 01/09/2021 17th Int. Conf. on Topics in Astroparticle and Underground Physics
“Perspectives for anti deuteron search in cosmic rays with an helium calorimeter”
[12] 25/05/2021 5th Technology and Instrumentation in Particle Physics conference (TIPP2021). “An Helium calorimeter for Anti-Deuteron identification in cosmic rays”
[13] 22/02/2021 1st Int. Ele. Conf. Universe “Beryllium radioactive isotopes as a probe to measure residence time of Cosmic Rays in the Galaxy and halo thickness”
[14] 26/11/2019 “PHYSICS and ASTROPHYSICS of COSMIC RAYS” School, St. Michel l’Observatoire, (FR) “Detection of high-energy particles from the Universe: basic concepts, methods and challenges”
[15] 14/10/2019 “Light Anti-Nuclei as a Probe for New Physics” Lorentz Center, Leiden (NL) “Perspectives for Anti-Deuteron identification in cosmic rays with an Helium based detector”.
[16] 28/03/2019 “2nd Cosmic-ray Antideuteron Workshop” UCLA, California
“Status of the Anti Deuteron Helium Detector (ADHD) project”.
[17] 05/09/2018 7th Roma Int. Conf. on Astroparticle Phys. RICAP 2018,
“Properties of Elementary Particle Fluxes in Primary Cosmic Rays Measured with the Alpha Magnetic Spectrometer on the International Space Station”.
[18] 08/09/2016 “25th European Cosmic Ray Symposium” (ECRS 2016)
“Precision measurement of antiproton to proton ratio with the alpha magnetic spectrometer on the international space station”

Grants

28/09/2023-current: PRIN2022 2022LLCPMH “PHeSCAMI”: 333.8k€
“Pressurized Helium Scintillating Calorimeter for AntiMatter Identification”
12/06/2018-11/06/2021: Grant INFN 19593: 20k€
“Studio di fattibilità di un rivelatore di antideuterio a base di elio gassoso”,
ADHD (Anti Deuteron Helium Detector). https://www.tifpa.infn.it/projects/adhd/

ADDITIONAL INFORMATION

Publications

Number of publications in peer-review journals >150
Total number of citations 13k
H index 46

A selection of 5 recent publication:

[1] “Evidence of an upper ionospheric electric field perturbation correlated with a gamma ray burst ”. M. Piersanti et al. (Limadou coll.) Nature Comm. 14 (2023) 7013.
[2] “Characterizing Low-Energy Charged Particles in the Magnetosphere with the LEM CubeSat Spectrometer Project: Detector Concept and Hardware Characterisation”
R. Nicolaidis, F. Nozzoli, G. Pepponi, P. Bellutti et al. Universe 9 (2023) 331.
[3] “Search for electron capture in ^{176}Lu with a lutetium yttrium oxyorthosilicate scintillator”.
L.E. Ghezzer, F. Nozzoli, R. Nicolaidis, et al. Phys. Rev. C 107 (2023) 045504.
[4] “Investigation of light dark matter with 2β decay experiments”.
F. Nozzoli and F. Follega. Eur. Phys. J. C 83 (2023) 641.
[5] “A Data Driven Approach for the Measurement of ^{10}Be/^{9}Be in Cosmic Rays with Magnetic Spectrometers”. F. Nozzoli, C. Cernetti. Phys. Rev. D 103 (2021) L101101

Top 5 cited publications:

[1] “First results from DAMA/LIBRA and the combined results with DAMA/NaI”
R. Bernabei et al. (DAMA collaboration) Eur.Phys.J.C 56 (2008) 333 (1.4k citations)
[2] “First Result from the Alpha Magnetic Spectrometer on the International Space Station: Precision Measurement of the Positron Fraction in Primary Cosmic Rays of 0.5–350 GeV”
M. Aguilar et al. (AMS collaboration) Phys.Rev.Lett. 110 (2013) 141102 (1.3k citations)
[3] “New results from DAMA/LIBRA”
R. Bernabei et al. (DAMA collaboration) Eur.Phys.J.C 67 (2010) 39 (1.2k citations)
[4] “Precision Measurement of the Proton Flux in Primary Cosmic Rays from Rigidity 1 GV to 1.8 TV with the Alpha Magnetic Spectrometer on the International Space Station”
M. Aguilar et al. (AMS collaboration) Phys.Rev.Lett. 114 (2015) 171103 (918 citations)
[5] “High Statistics Measurement of the Positron Fraction in Primary Cosmic Rays of 0.5–500 GeV with the Alpha Magnetic Spectrometer on the International Space Station”
L. Accardo et al. (AMS collaboration) Phys.Rev.Lett. 113 (2014) 121101 (666 citations)

Trento 13/03/2024