

Giovanni Malfattore

Curriculum Vitae

DIFA & INFN Bologna, BO, Italia

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Informazioni personali

Born 17 Marzo 1991 a Spilimbergo (PN)

Cittadinanza Italiana

Istruzione

- 2018-2021 **Laurea magistrale in Fisica - Curriculum nucleare e sub-nucleare**, Università degli Studi di Trieste, Trieste, Italy
Giudizio: 110/110
Relatore: Dr. Ramona Lea
Correlatore: Prof. Paolo Camerini
Titolo: *Search for P_s^\pm pentaquarks produced in ultra-relativistic collisions with ALICE at LHC*
- 2011-2018 **Laurea in Fisica**, Università degli Studi di Trieste, Trieste, Italy
Giudizio: 100/110
Relatore: Prof. Rinaldo Rui
Correlatore: Dr. Ramona Lea
Titolo: *Studio della produzione del mesone $K^*(892)^\pm$ in collisioni pp a $\sqrt{s} = 7$ TeV*
- 2005-2010 **Diploma di maturità scientifica**, Liceo Scientifico Statale "N.Copernico", Udine, Italy
Piano Nazionale Informatico (P.N.I.) - Curriculum sperimentale
Giudizio: 86/100

Ricerca

- 2021-present **Ph.D. in Fisica**, Alma Mater Studiorum - Università di Bologna, Bologna, Italy
Relatore: Prof. Francesca Bellini
Correlatore: Dr. Nicolò Jacazio
Titolo: *Measurement of (anti)helium production with ALICE at the LHC for indirect dark matter searches in cosmic rays*
- 07-2023 - **Visiting Doctoral Researcher**, CERN - European Organization of Nuclear Research, 09-2023 Geneva, Switzerland

Associazioni di ricerca

- 2020-present **Associated membership | Esperimento ALICE , CERN - European Organization of Nuclear Research, Geneva, Switzerland**

La mia ricerca primaria si svolge all'interno del Physics Analysis Group "Nuclei, Spectra and Exotica" della collaborazione ALICE.

Sono anche responsabile del controllo qualità dell'identificazione di particelle (PID) di tutti i dati raccolti dal rivelatore ALICE, come parte integrante del mio Service Task presso la Collaborazione.

Inoltre, sono membro del gruppo ALICE-TOF di Bologna, e come tale parte dei miei compiti consistono nella manutenzione e il controllo qualità del rivelatore TOF.

Nei periodi di presa dati di LHC, inoltre, svolgo il ruolo di ECS shifter e di membro esperto per il rivelatore ALICE-TOF.

- 2020-present **Membership, INFN - Istituto Nazionale di Fisica Nucleare, Italy**

Conferenze

- 09-2022 **SIF2022, 108^o Congresso nazionale della Società Italiana di Fisica, Milano, Italia**
Contributed talk: *Identification and prospects for light (anti)nuclei measurements with the upgraded ALICE detector at the LHC Run 3*
- 11-2022 **LHCC, CERN - European Organization of Nuclear Research, Ginevra, Svizzera**
Poster: (Con Francesca Ercolessi) *The ALICE TOF system in continuous readout: Commissioning - Online data quality monitoring - PID performance*
- 06-2023 **HADRON2023, 20th International Conference on Hadron Spectroscopy and Structure, Genova, Italia**
Contributed talk: *Constraining the formation mechanism of light (anti)nuclei at the LHC and Application for cosmic ray physics*
- 09-2023 **QM2023, Quark Matter 2023 - XXXth International Conference on Ultra-relativistic Nucleus-Nucleus Collisions, Houston, TX, USA**
Poster: *Measurements of (anti)nuclei in pp collision at $\sqrt{s} = 13$ TeV*

Pubblicazioni

Measurements of the Cherenkov effect in direct detection of charged particles with SiPMs, F. Carnesecchi, B. Sabiu, S. Strazzi, G. Vignola, N. Agrawal, A. Alici, P. Antonioli, S. Arcelli, F. Bellini, D. Cavazza, L. Cifarelli, M. Colocci, S. Durando, F. Ercolessi, D. Fldchieri, A. Ficarella, C. Fraticelli, M. Garbini, M. Giacalone, A. Gola, D. Hatzifotiadou, N. Jacazio, A. Margotti, G. Malfattore, R. Nania, F. Noferini, G. Paternoster, O. Pinazza, R. Preghenella, R. Rath, R. Ricci, L. Rignanese, N. Rubini, E. Scapparone, G. Scioli, A. Zichichi
Eur.Phys.J.Plus 138, 788 (2023)

Understanding the direct detection of charged particles with SiPMs, F. Carnesecchi, G. Vignola, N. Agrawal, A. Alici, P. Antonioli, S. Arcelli, F. Bellini, D. Cavazza, L. Cifarelli, M. Colocci, S. Durando, F. Ercolessi, A. Ficarella, C. Fraticelli, M. Garbini, M. Giacalone, A. Gola, D. Hatzifotiadou, N. Jacazio, A. Margotti, G. Malfattore, R. Nania, F. Noferini, G. Paternoster, O. Pinazza, R. Preghenella, R. Rath, R. Ricci, L. Rignanese, N. Rubini, B. Sabiu, E. Scapparone, G. Scioli, S. Strazzi, S. Tripathy, A. Zichichi
Eur.Phys.J.Plus 138 (2023) 4, 337

Direct detection of charged particles with SiPMs, Carnesecchi, F.; Agrawal, N.; Alici, A.; Arcelli, S.; Bellini, F.; Cifarelli, L.; Colocci, M.; Ercole, F.; Garbini, M.; Giacalone, M.; Jacazio, N.; Malfattore, G.; Noferini, F.; Pinazza, O.; Preghenella, R.; Rignanese, L.; Rubini, N.; Scioli, G.; Strazzi, S.; Zichichi, A
JINST 17 (2022) 06, P06007

Pubblicazioni come membro della collaborazione ALICE

$\Sigma(1385)^{\pm}$ resonance production in Pb–Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV, Acharya, S. et al. (ALICE Collaboration)
Eur.Phys.J.C 83 (2023) 5, 351

Anisotropic flow and flow fluctuations of identified hadrons in Pb–Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV, Acharya, S. et al. (ALICE Collaboration)
JHEP 05 (2023) 243

Azimuthal correlations of heavy-flavor hadron decay electrons with charged particles in pp and p–Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV, Acharya, S. et al. (ALICE Collaboration)
Eur.Phys.J.C 83, 741 (2023)

Constraining the $\bar{K}N$ coupled channel dynamics using femtoscopic correlations at the LHC, Acharya, S. et al. (ALICE Collaboration)
Eur.Phys.J.C 83 (2023) 4, 340

Enhanced Deuteron Coalescence Probability in Jets, Acharya, S. et al. (ALICE Collaboration)
Phys. Rev. Lett. 131, 042301

First measurement of $\Lambda c+$ production down to $pT=0$ in pp and p–Pb collisions at $s_{NN}=5.02$ TeV, Acharya, S. et al. (ALICE Collaboration)
Phys.Rev.C 107 (2023) 6, 064901

Inclusive photon production at forward rapidities in pp and p–Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV, Acharya, S. et al. (ALICE Collaboration)
Eur. Phys. J. C 83, 661 (2023)

J/ψ production at midrapidity in p–Pb collisions at $\sqrt{s_{NN}} = 8.16$ TeV, Acharya, S. et al. (ALICE Collaboration)
J. High Energ. Phys. 2023, 137 (2023)

Jet-like correlations with respect to K_S^0 and Λ ($\bar{\Lambda}$) in pp and Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV, Acharya, S. et al. (ALICE Collaboration)
Eur.Phys.J.C 83 (2023) 6, 497

Light (anti)nuclei production in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV, Acharya, S. et al. (ALICE Collaboration)
Phys.Rev.C 107 (2023) 6, 064904

Measurement of the angle between jet axes in pp collisions at $\sqrt{s} = 5.02$ TeV, Acharya, S. et al. (ALICE Collaboration)
J. High Energ. Phys. 2023, 201 (2023)

Measurement of the Lifetime and Λ Separation Energy of ${}^3\Lambda H$, Acharya, S. et al. (ALICE Collaboration)
Phys. Rev. Lett. 131, 102302

Neutron emission in ultraperipheral Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV,
Acharya, S. et al. (*ALICE Collaboration*)
Phys.Rev.C 107 (2023) 6, 064902

Observation of flow angle and flow magnitude fluctuations in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV at the CERN Large Hadron Collider, Acharya, S. et al. (*ALICE Collaboration*)
Phys.Rev.C 107 (2023) 5, L051901

Performance of the ALICE Electromagnetic Calorimeter, Acharya, S. et al. (*ALICE Collaboration*)
JINST 18 P08007

Production of K_S^0 , $\Lambda(\bar{\Lambda})$, Σ^\pm and Ω^\pm in jets and in the underlying event in pp and p-Pb collisions, Acharya, S. et al. (*ALICE Collaboration*)
J. High Energ. Phys. 2023, 136 (2023)

Symmetry plane correlations in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV, Acharya, S. et al. (*ALICE Collaboration*)
Eur.Phys.J.C 83 (2023) 7, 576

Towards the understanding of the genuine three-body interaction for p-p-p and p-p- Λ , Acharya, S. et al. (*ALICE Collaboration*)
Eur.Phys.J.A 59 (2023) 7, 145

Two-particle transverse momentum correlations in pp and p-Pb collisions at LHC energies, Acharya, S. et al. (*ALICE Collaboration*)
Phys.Rev.C 107 (2023) 5, 054617

Production of pions, kaons, and protons as a function of the relative transverse activity classifier in pp collisions at $\sqrt{s} = 13$ TeV, Acharya, S. et al. (*ALICE Collaboration*)
JHEP 06 (2023) 027

Measurement of the angle between jet axes in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV, Acharya, S. et al. (*ALICE Collaboration*)
CERN-EP-2023-046

Investigation of K+K- interactions via femtoscopy in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV at the CERN Large Hadron Collider, Acharya, S. et al. (*ALICE Collaboration*)
Phys.Rev.C 107 (2023) 5, 054904

Scuole

- 07-2022 **ISSP EMFCSC, 58th Course of the International School of Subnuclear Physics,** Erice, Italia
Poster: *Antinuclei from the laboratory to the Cosmos: getting ready for the LHC Run 3*
- 08-2023 **CERN-Fermilab HCP, 18th joint CERN-Fermilab Hadron Collider Physics Summer School,** Ginevra, Svizzera

Competenze personali

Competenze informatiche

O.S. Microsoft Windows, Linux, MacOS

Applicativi scientifici ROOT, AliPhysics, O2Physics

Editor di testo Office packages, L^AT_EX

Linguaggi C, C++, Fortran, shell scripting

Data LabVIEW

Acquisition

Altro Adobe Photoshop, GitHub, GitLab

Lingue

Self-assessment European level CEFR (C2: livello massimo)

		Comprensione		Parlato		Scrittura
		Ascolto	Lettura	Interazione	Produzione	

Italiano Madrelingua

C2

C2

C2

C2

Inglese Avanzato

B2

C1

C1

B2

B2

Altre competenze

Patente di guida B

Ulteriori informazioni

Borse di studio

2018-2021 Borsa ARDISS FVG