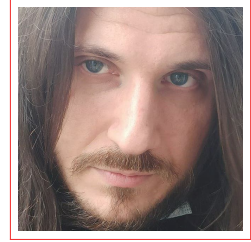


Giovanni Malfattore

Curriculum Vitae

DIFA & INFN Bologna, BO, Italy
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LinkedIn: giovannimalfattore



Personal information

Born 17th March, 1991 at Spilimbergo (Italy)
Citizenship Italian

Education

- 2018-2021 **Master's degree in Nuclear and Subnuclear Physics**, *Università degli Studi di Trieste*, Trieste, Italy.
Mark: 110/110
Supervisor: Dr. Ramona Lea
Assistant supervisor: Prof. Paolo Camerini
Title: *Search for P_s^\pm pentaquarks produced in ultra-relativistic collisions with ALICE at LHC*
- 2011-2018 **Bachelor's degree in Physics**, *Università degli Studi di Trieste*, Trieste, Italy.
Mark: 100/110
Supervisor: Prof. Rinaldo Rui
Assistant supervisor: Dr. Ramona Lea
Title: *Studio della produzione del mesone $K^*(892)^\pm$ in collisioni pp a $\sqrt{s} = 7$ TeV*
- 2005-2010 **Scientific High School Diploma**, *Liceo Scientifico Statale "N.Copernico"*, Udine, Italy.
National Plan of Computer studies (P.N.I.) experimental curriculum
Mark: 86/100

Research

- 2021-present **Ph.D. in Physics**, *Alma Mater Studiorum - Università di Bologna*, Bologna, Italy.
Supervisor: Prof. Francesca Bellini
Assistant supervisor: Dr. Nicolò Jacazio
Title: *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*, Geneva, Switzerland.
09-2023

Memberships

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

My primary research is in ALICE "Nuclei, Spectra and Exotica" Physics Analysis Group. I am also responsible for the particle identification quality control on all the collected data as part of my ALICE Service Task. In addition, I am member of the ALICE-TOF group based in Bologna, so part of my expertise is maintenance of the TOF sub-detector. During LHC data taking periods, I also serve as a ECS shifter and as ALICE-TOF expert.

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

Conferences

- 09-2022 **SIF2022**, 108^o Congresso nazionale della Società Italiana di Fisica, Milano, Italy.
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, Geneva, Switzerland.
Poster: (With 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, Italy.
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*

Schools

- 07-2022 **ISSP EMFCSC**, 58th Course of the International School of Subnuclear Physics, Erice, Italy.
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, Geneva, Switzerland.

Publications

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. Ficorella, 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. Ficorella, 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.; Ercolessi, 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

Publications as member of the ALICE collaboration

$\Sigma(1385)^\pm$ 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 femtosopic 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 Λ_c^+ production down to $p_T=0$ in pp and p–Pb collisions at $\sqrt{s_{NN}}=5.02$ 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 ${}^3_\Lambda\text{H}$, 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 $\sqrt{s_{NN}} = 2.76\text{TeV}$, 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 $\sqrt{s} = 13\text{ TeV}$, Acharya, S. et al. (ALICE Collaboration).

JHEP 06 (2023) 027

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

CERN-EP-2023-046

Personal skills

Computer skills

O.S.	Microsoft Windows, Linux, MacOS	Languages	C, C++, Fortran, shell scripting
Scientific tools	ROOT, AliPhysics, O2Physics	Data Acquisition	LabVIEW
Text editors	Office packages, L ^A T _E X	Others	Adobe Photoshop, GitHub, GitLab

Languages

Self-assessment European level CEFR (C2 maximum evaluation)

		Comprehension		Speaking		Writing
		Listening	Reading	Interaction	Production	
Italian	Mother Tongue	C2	C2	C2	C2	C2
English	Advanced	B2	C1	C1	B2	B2

Other skills

Driving licence B

Additional information

Scholarships

2018-2021 ARDISS FVG Scholarship