



Ștefan-Alexandru Ghinescu

DATE OF BIRTH:
16/05/1995


CONTACT

Nationality: Romanian

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WORK EXPERIENCE

2018 – CURRENT – Magurele, Romania

ACS

National Institute for Physics and Nuclear Engineering "Horia-Huluibeii" (IFIN-HH)

- Developing and maintaining the the Digitization software of the HASC subdetector in the NA62 experiment at CERN.
- Maintaining and improving the reconstruction software for the HASC subdetector.
- Development of a model for the electric signal generated by silicon fotomultipliers (SiPM) used in the HASC subdetector.
- Maintaining and improving the Data Quality software dedicated to the HASC subdetector.
- Participation and contributions to various Working Group meetings in the NA62 collaboration.
- Study of the ALP->gg process in the Exotics working group of the NA62 collaboration.
- Study of the Dark Scalar sensistivity of NA62 in the Exotics working group.

2018 – CURRENT – Magurele, Romania

ACS

UNESCO cat. II International Centre for Advanced Training and Research in physics (CIFRA)

- Study of the very rare double beta decay process.
- Development, maintenance and improvement of various algorithms and programs used in the study of beta and double beta decay.

2016 – 2018

Physicist

National Institute for Physics and Nuclear Engineering "Horia-Huluibeii" (IFIN-HH)

- Developing and maintaining the the Digitization software of the HASC subdetector in the NA62 experiment at CERN.
- Maintaining and improving the reconstruction software for the HASC subdetector.
- Development of a model for the electric signal generated by silicon fotomultipliers (SiPM) used in the HASC subdetector.
- Maintaining and improving the Data Quality software dedicated to the HASC subdetector.
- Participation and contributions to various Working Group meetings in the NA62 collaboration.

Măgurele, Romania

2015 – 2016

Tehnician

National Institute for Physics and Nuclear Engineering "Horia-Huluibeii" (IFIN-HH)

- Maintaining and improving the reconstruction software for the HASC subdetector.

- Developing the Data Quality software dedicated to the HASC subdetector.

Măgurele, Romania

EDUCATION AND TRAINING

10/2018 - CURRENT - Măgurele, Romania

Theoretical Physics PhD student

Faculty of Physics, University of Bucharest

2016 - 2018 - Măgurele, Romania

Master of Science

Faculty of physics, University of Bucharest

- Teorie Cuantică de Câmp
- Electrodinamică Cuantică
- Fizica Particulelor Elementare
- Metode Computaționale în mai multe limbaje de programare(C++, Python, Mathematica)

2013 - 2016 - Măgurele, Romania

Bachelor of Science

Faculty of Physics, University of Bucharest

LANGUAGE SKILLS

MOTHER TONGUE(S): Romanian

OTHER LANGUAGE(S):

English

Listening
C1

Reading
C1

**Spoken
production**
C1

**Spoken
interaction**
C1

Writing
C1

DIGITAL SKILLS

Mathematica / C C++ C / Python - advanced level / Latex - advanced level / GEANT 4 - advanced level / ROOT - advanced level / Fortran - Advanced level

PUBLICATIONS

- **Probing Lorentz violation in $2\nu\beta\beta$ using single electron spectra and angular correlations**
2021 <https://journals.aps.org/prd/abstract/10.1103/PhysRevD.103.L031701>
- **Lorentz violation effects in $2\nu\beta\beta$ decay**
2020 <https://iopscience.iop.org/article/10.1088/1361-6471/ab7e8c>
- **Coupled-channels analysis of the α decay in strong electromagnetic fields**
2020 <https://journals.aps.org/prc/abstract/10.1103/PhysRevC.101.044304>
- **Geiger-Nuttall Law for Nuclei in Strong Electromagnetic Fields**
2017 <https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.119.202501>