

# DESPOINA FARAKOU

PhD. student

## PERSONAL DETAILS

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*First Name* Despoina  
*Surname* Farakou  
*Birth* April 09, 1997  
*Nationality* Greek  
*Mail* farakou@fzu.cz

## EDUCATION

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### Ph.D. studies.

2022-

*Faculty of Mathematics and Physics, Charles University, Prague.  
CEICO, Institute of Physics of the Czech Academy of Sciences.*

*-PhD thesis : Cosmological Effects of Dark Matter.*

*Currently working on Effective Field Theory of Large Scales Structures and CMB physics.  
Advisor: Constantinos Skordis.*

### Postgraduate studies.

2020-2022

*National Technical University of Athens.*

*School of Applied Mathematical and Physical Science, Department of Physics.*

*Interdepartmental Program of Postgraduate studies in Physics and Technological Applications.*

*-Master Courses : Quantum Field Theory 1&2, Quantum Mechanics 1&2, Electromagnetism, Statistical Physics, Mathematical Methods of Physics and General Relativity .*

*-Master Thesis : Running Vacuum in String Inspired Cosmologies and Matter-Antimatter Asymmetry in the Universe, (Baryogenesis through Leptogenesis).*

*Advisor: Nikolaos Mavromatos.*

*-Graduate Grade : 9.83/10.00*

### Integrated Master's Degree in Physics.

2015-2020

*National Technical University of Athens.*

*School of Applied Mathematical and Physical Science, Department of Physics.*

*Major in Theoretical and Computational Physics & Nuclear Physics and Elementary Particles.*

*-Related Courses : Theoretical Physics, Elementary Particles 1 & 2, Nuclear Physics 1 & 2 and General Relativity & Cosmology.*

*-Diploma Thesis : Dark Matter Bound States.*

*Advisor: Christoforos Kouvaris.*

*-Graduate Grade : 8.00/10.00*

## SCHOOLS AND CONFERENCES

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### Perspectives on Large Scale Structure, Czech Republic.

2023

*This workshop was focussed on how to accurately model the formation of large scale structure in the Universe and how to use the next-generation of cosmological surveys to increase our understanding of dark matter, dark energy and gravity.*

### Theoretical Aspects of Astroparticle Physics, Cosmology and Gravitation, Italy

2023

*Galileo Galilei Institute for Theoretical Physics, Arcetri, Florence.*

*Lecture courses on particle Dark Matter, Cosmic tensions, Neutrino Physics, and Gravitational waves.*

### GRAVITY@Prague, Czech Republic.

2022

*This school featured a set of advanced lecture courses around the theme of gravity.*

### 11th IDPASC School, Czech Republic.

2022

*The International Doctorate Network in Particle Physics, Astrophysics and Cosmology (IDPASC) is an interdisciplinary network whose aim is to train a new generation of high-level experts in the fields of Particle Physics, Astrophysics and Cosmology.*

SynCRETism 2022, Greece.

2022

*The meeting aimed to bring together particle physicists, cosmologists, and astrophysicists, to fuse different approaches on dark matter.*

## SKILLS

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*Languages*      Greek (mother tongue), English (fluently)  
French (barely), Czech (barely)

*Computer Skills*      Python, C, C++, JAVA, FORTRAN  
Mathematica, Matlab  
LaTeX