



NIKOLAOS SIOULAS

BSc in Physics


PERSONAL INFORMATION



I am a graduate student in Space - Physics at UCLA. I am broadly interested in theoretical and computational astrophysics with a focus on plasma astrophysics. I am currently working on Parker Solar Probe data analysis and PIC simulations.

CONTACT



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Thessaloniki, Greece

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 Nikolaos Sioulas

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LANGUAGES



- **Greek**
Mother tongue
- **English**
Michigan ECPE C2 level
TOEFL iBT 107/120

SOFTWARE SKILLS



Advanced

Python, Matlab, C, Excel, Latex, Windows
Microsoft Office, Linux

Intermediate

Mathematica,

Basic

C++, Fortran, Origin



EDUCATION

High School Studies

2009 - 2015

Lyceum of Rodolivos, Greece

Graduation Grade: 19.8 / 20 · First Class Honours

Nation-wide College Admission tests Grade 18.35/20

Description: Completion of each year with 1st Class Honours and Distinctions for scoring the top grade among the class.

BSc, Physics

2015-10 - 2020-01

Department of Physics, School of Sciences, Aristotle University of Thessaloniki (AUTH). Section of Astrophysics, Astronomy, and Mechanics

GPA : 8.88 /10 (highest 2%)

Thesis: "Superdiffusive stochastic Fermi acceleration in energy and space "

Supervisor: Prof. Loukas Vlahos

PhD, Space Physics

2020-10 -

Department of Earth Planetary and Space Sciences, University of California, Los Angeles (UCLA)

GPA: 3.8/4

Supervisor: Prof. Marco Velli



PUBLICATIONS

- 1) Superdiffusive stochastic Fermi acceleration in energy and space. (MNRAS)
- 2) Stochastic turbulent acceleration in a fractal environment. (APJ letters)
- 3) Particle acceleration and heating in reconnecting and non reconnecting current sheets

TEACHING ASSISTANT



Department of Physics AUTH

Calculus I Prof. P.Papadopoulos 2018
•Problem Set Correction

Calculus II Prof. C.Tsgakas 2017
•Problem Set Correction

Description: Chosen to serve as a teaching assistant in two undergraduate compulsory courses, on the basis of my excellent grades (top 5% of the class) achieved in the corresponding subjects.

SCIENTIFIC INTERESTS



- Space physics
- Solar physics
- Astrophysics

ATHLETICS



- **Swimming**
Swimming Club of Kavala (2000 - 2016)
- **Fitness** (2016 - present)

COMMUNITY WORK - VOLUNTEERING



- Frequent **Blood Donor** at Theagenio Hospital Thessaloniki
- Participation in Path - Voluntary group comprised by students of our department organising scientific and career-oriented seminars (2015 - 2019)
- Assistant, Hellenic Mathematical Society (2015 - 2018)

OTHER SKILLS



- Certified knowledge of First Aid
- Guitar Diploma

INTERESTS



- Composing Music
- Theater, Cinema
- Fishing,camping



RESEARCH EXPERIENCE

Plasma Physics & High Energy Astrophysics

Undergraduate Research Assistant, AUTH

In collaboration with Professor Loukas Vlahos.

2019-01 - Present

- Performed research in space plasma physics.
- Developed strong computational skills.
- Expanded my knowledge of space and solar physics.
- Improved my communication and cooperation skills.



WORKING EXPERIENCE

Waiter Platanos Restaurant,Serres

2009 - 2012

Waiter Chatzidimpas Restaurant,Serres

2015 - 2018

Physics-Mathematics Tutor Self Employed

2016 - 2018

Description:Private mathematics and physics lessons to Junior High School and High School students



TALKS GIVEN

- **Superdiffusive stochastic Fermi acceleration in energy and space.** Astronomy Observatory AUTH
- **Hunting the elusive Higgs Boson.** Applied Informatics Laboratory
- **The IceCube Neutrino Observatory.** Physics Department AUTH



DISTINCTIONS

- Multiple medals in Nation-wide swimming championships
- Awarded as the best male athlete in Macedonia region for 3 consecutive years (2009 - 2012)
- High School Honors: Achieved 1st Class Honors in each and every year of my High School studies (7th - 12th grade)



CONFERENCES ATTENDED

- **14 th Hellenic Astronomical Conference**, Volos, July 2019.
- **3rd Conference of Undergraduate Research in Physics**, April 13-14,2019



WORKSHOPS ATTENDED

- **Workshop for High Energy Physics**,October 7,2015
- **DAAD Winter School for Students:**Neutron Stars in the Era of Gravitational Waves November 30, 2017
- **Student Christmas Workshop 2018:** Institute of the Theoretical Physics, AUTH, 20 December 2018