

Apostolos Sotirios Karaferias

Email: askaraferias@gmail.com

Citizenship: Greece

website: karaferias.com

Date of birth: August 8 1997

Research interests Theoretical/Computational Astrophysics, High Energy Astrophysics

Education

Secondary Education

General Lyceum of Eretria

Eretria, GR

General Lyceum Degree, GPA: 19.5/20 (Excellent)

University entrance examination: Pan-Hellenic (Panelladikes) Examinations, Grade: 19.02

Higher (Tertiary) Education

National & Kapodistrian University of Athens

Athens, GR

BSc in Physics, GPA: 8.59 (Excellent)

BSc Thesis Project: **Study of torque models during super-Eddington outbursts in BeXRB pulsars**, Supervisor: Prof. Maria Petropoulou, Co-supervisor: Dr Georgios Vasilopoulos, Grade: 10/10

Awards and Prizes

25th Annual Panhellenic Student Physics Competition - 16th place
Union of Greek Physicists 2015

24th Annual Panhellenic Student Physics Competition - 18th place
Union of Greek Physicists 2015

'The Great Moment for Education' Award and Prize - For excellence in the 2015
Panhellenic Exams

Eurobank 2015

Award for excellence in the 'Thales' competition
Greek Mathematical Society 2013

Award for excellence in the 'Thales' competition
Greek Mathematical Society 2012

Award for excellence in the 'Playing and Mathematics' competition
Greek Mathematical Society 2010

Award for excellence in the 'Young Euclid' competition
Greek Mathematical Society 2008

Publications

A Bayesian approach for torque modelling of BeXRB pulsars with application to super-Eddington accretors (based on my BSc thesis project)
Karaferias, Vasilopoulos, Petropoulou, Jenke, Wilson-Hodge, Malacaria
Monthly Notices of the Royal Astronomical Society, 520, 281 (2022)

An X-ray view of the 2021 outburst of SXP 15.6: constraints on the binary orbit and magnetic field of the Neutron Star

Vasilopoulos, Jaisawal, Maitra, Haberl, Maggi, **Karaferias**

Astronomy & Astrophysics, 664, A194 (2022)

My contribution: Wrote code for modeling of spin evolution based on orbital modulation and spin-up due to mass accretion.

Other relevant experience **Spectral analysis and the cyclotron line of 1A 0535+262** (2021 Winter semester)
Research project and short paper, part of the 'Astrophysics Laboratory' course, Grade 10/10.

Successful Scientific Proposals **Enhancements and operation of an accreting pulsar program using GBM data (NASA/Fermi)**
Fermi Guest Investigator Program, Cycle 15
Received as Co.I. ; P.I.: Jenke, P. A.

Talks and Presentations **A Bayesian approach for torque modelling of super-Eddington accreting magnetized Neutron Stars**
COSPAR 2022 Athens, GR, 16-24 July 2022

Volunteering **COSPAR 2022 Athens, GR, 16-24 July 2022**
Member of team of volunteers

Skills **Programming**
Advanced: python 3
Familiar with: C ; Matlab ; Fortran ; Lua

Operating Systems
Linux ; Windows

Text Processing
L^AT_EX ; MS Word

Languages

- Greek (native)
- English (fluent),
Qualification: IELTS (Academic),
Date: 17/OCT/2023,
Grades:
 - Listening: 9.0
 - Reading 9.0
 - Writing 7.5
 - Speaking 7.5
 - Overall Band Score 8.5
 - CEFR Level: C2

Other interests

Digital art ; Tabletop RPGs ; Programming.