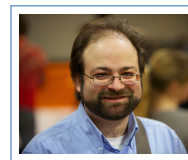


Antonios Manousakis

Curriculum Vitæ as of September 2018

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Personal Data

Date of Birth: December 28, 1982
Birthplace: Athens, Greece

Citizenship: Greek
Status: Single

Research Interests

- Multi- λ Observations (X- and γ - ray, Optical, near-IR), imaging, timing, spectral analysis; Accretion onto Compact Objects (neutron star or black hole); Accretion Structures (wind, wake, disk, torus); X-ray emission; Hydrodynamics (HD), Magneto Hydrodynamics (MHD), General Relativistic Magneto Hydrodynamics (GRMHD); Stellar Winds, Massive Stars; High Mass X-ray Binaries; Quasi Periodic Oscillations (QPO)

Education

2011 **Ph.D. in Astronomy & Astrophysics**, *University of Geneva*, Geneva, Switzerland.
09.2007-12.2011

title *Accretion in High Mass X-ray Binaries*

Advisor: Dr. Roland Walter

Juries: Prof. Thierry J.-L. Courvoisier, Prof. Georges Meynet, and Prof. Jörn Wilms

Defense December 21st, 2011

2006 **B.Sc. in Physics**, *University of Crete*, Heraklion, Greece.
10.2000 - 11.2006

title *Identification of optical counterparts to HMXBs through Photometry and Spectroscopy*

Advisor: Dr. Pablo Reig and Prof. Nikolaos D. Kylafis

Defense September 25th, 2006

Research Experience

Dept. of Applied Physics & Astronomy, University of Sharjah, Sharjah, UAE

2018
Visiting Assistant Professor, 9.2018-now.

Dept. of Physics, University of Crete, Heraklion, Greece

2017
2018
Visiting Researcher, 2.2018-07.2018.

Sultan Qaboos University, Muscat, Oman

2017
2018
Visiting Faculty, 1.2017-01.2018.

N. Copernicus Astronomical Center, Warsaw, Poland

2016
Affiliated Researcher, 11.2016-now.

2012
2016
Postdoctoral Fellow, 10.2012-10.2016.

ISDC Data Center for Astrophysics, Geneva, Switzerland

Research Assistant, 9.2007-9.2012.

Teaching/Mentoring Experience

2018

University of Sharjah, *College of Sciences*, Sharjah, UAE.

Course 1430106 *Remedial Physics*

2017

Sultan Qaboos University, *College of Sciences*, Muscat, Oman.

2018

Course PHYS2101/2107 *General Physics I* (incl. lectures, laboratory experiments and tutorials)

Mentoring Providing expertise on subjects of X-ray data reduction and analysis to MSc student Salama Alhinaaia

Workshop Introduction to Python for Physics graduate students

2014

2016

N. Copernicus Astronomical Center, *student formation*.

- Lecturer in *Introcuton to Python in Astronomy*
- Supervisor of graduate student journal club activities

2015

N. Copernicus Astronomical Center, *summer student programme*, Warsaw, Poland.

project: *Hard X-ray data analysis with INTEGRAL*, Alexandros Filothodoros (Ph.D. candidate)

project: *X-ray wind tomography of IGR J18027* – 2016, Izabella Konstanciak (MSc student)

Experience & Skills

Observations

X/ γ -rays XMM-Newton, INTEGRAL, RXTE, *Swift*, NuStar

Analysis Timing: Fourier and Lomb-Scargle techniques; Spectral, and imaging

Optical Photometry & Spectroscopy

Data Analysis Packages XMM-SAS, INTEGRAL-OSA, HEASOFT/FTOOLS, (py)XSPEC, ISIS, (py)IRAF, STARLINK, ESO-MIDAS

Computer

Languages (expert) Fortran 77/90/95, python, (t)csh

Languages C/C++, bash, R

Visualization matplotlib, supermongo, gnuplot, xmgrace, visit, ncview, paraview, EnSight

General purpose L^AT_EX, HMTL, CSS, MS office, SageMath, Mathematica

Hydrodynamics VH1, FLASH, Cosmos++, PLUTO

Operating systems Linux (various distributions), Mac OS X; user and administrator experience.

Approved Proposals

- As Principal Investigator (PI):
 - XMM-Newton ~ 100 ksec (07450602)
 - ESO/VLT, in total ~ 35 hours (ID 095.D-0392 and 093.D-0665)
 - PLGRID, ~ 5 million CPU hours on PROMETHEUS supercomputer
- As Co-I: Several accepted proposals. Among them:
 - XMM-Newton ~ 130 ksec (07446001)
 - ISSI workshop on *A Comprehensive View of Stellar Winds in Massive X-ray Binaries*
 - Polish NCN (equivalent to NSF) proposal on *Variable accretion flows*

Participation to International X-ray Missions

- Member ATHENA X-ray Observatory (ESA L2 **selected** mission) science working groups: *The Physics of Accretion* (SWG2.5) and *Advanced Analysis tools* (MWG5.5)
- Member eXTP (CAS, China, candidate mission) enhanced X-ray Timing and Polarimetry science working groups: *Strong Field Gravity* (WG2), *Strong Magnetism* (WG3) & *Observatory Science* (WG4)
- Member AMEGO: All-sky Medium Energy Gamma-ray Observatory

- Member XIPE (ESA M4 candidate mission; declined) X-ray Imaging Polarimeter Explorerma: *Accreting X-ray Pulsars* (SWG2.3) and *X-ray Binaries (XRB) & Quasi-Periodic Oscillations - QPO* (SWG5.5)
- Member LOFT (ESA M3/M4 candidate; declined) Observatory Science Working Group

Organization, Services to the Community, and Fellowships

- LOC *Supernova Remnants: An Odyssey in Space after Stellar death vol. 2*, Chania, Greece (6/2019)
- LOC *Supernova Remnants: An Odyssey in Space after Stellar death*, Chania, Greece (6/2016)
- Reviewer *ARIS High-Performance Computing* (HPC) of the GRNET (since 2016)
- LOC *Copernicus & Hevelius Relativistic Astrophysics Meeting*, Krakow, Poland (12/2014)
- Referee *Astronomy & Astrophysics (A&A)* and *Monthly Notices of the Royal Astronomical Society* (MNRAS)
- Member *Internatinal Astronomical Union (IAU)*, *Swiss Society of Astronomy and Astrophysics (SSAA)*, *European Astronomical Society (EAS)*, *Hellenic Astronomical Society (Hel.A.S.)*
- Member *Einstein Toolkit* (ET) computational tools to advance and support research in relativistic astrophysics
- Fellowship *Swiss National Science Fund* (SNF/FNS, equivalent to NSF) support for the Ph.D. studeis (2007-2011)

Science Visits (selected)

- New York University in Abu Dhabi (NYUAD), United Arab Emirates (dur.: 2 days, ??/2018)
- N. Copernicus Astronomical Center, Poland (dur.: 10 days, 08/2017)
- The International Space Science Institute in Bern, Switzerland (dur.: 1 week, 2016/2017)
- Paris Observatory in Meudon, France (duration: 1 week, 2015)
- ISDC, University of Geneva, Switzerland (duration: 3 months, 2014)
- University of Potsdam, Germany (dur.: 1 week, 2013)
- FLASH Center at the University of Chicago, USA (dur.: 2 weeks, 2013)
- Dept. of Physics & Astronomy, Northwestern University, USA (dur.: 1 day, 2013)
- Dept. of Physics & Astronomy, N.C. State University, USA (dur.: 2 weeks, 2013)
- ISDC, University of Geneva, Switzerland (dur.: 10 days, 2013/2014)

Selected Talks

- Invited ISSI workshop on stellar winds of massive stars, Switzerland (2/2016 & 2/2017)
- Contribution 28th Texas Symposium on Rel. Astrophysics, Geneva, Switzerland (12/2015)
- Invited 8th Aegean Summer School on Gravitational Waves, Greece (7/2015)
- Invited The Copernicus and Hevelius Rel. Astrophysics meeting, Poland (12/2014)
- Contribution EWASS 2014, Geneva, Switzerland (7/2014)
- Invited Institute of Astronomy, Univ. of Potsdam, Germany (11/2013)
- Invited Dept. of Physics & Astronomy, N.C. State Univ., USA (5/2013)
- Invited Dept. of Physics & Astronomy, Northwestern Univ., USA (5/2013)

Public outreach

- Press release (on ESA website) on Neutron star masses from hydrodynamical effects in obscured sgHMXB. (see e.g., <http://sci.esa.int/jump.cfm?oid=51050>)
- Participation to the biannual public outreach programme of the Canton of Geneva, Switzerland *the night of science* (nuit de la Science) in 2009 and 2011

References

Available upon request at references@arbitrary.eu