

CONTACT INFORMATION

Basic Sciences Unit
TED University
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PERSONAL INFORMATION

Born in Çanakkale/Turkey, 1987, Citizen of Turkey

CURRENT AFFILIATION

Assistant Professor of Physics, TED University

RESEARCH INTERESTS

Accretion onto compact objects,
dynamical evolution and radiative properties of accretion disks,
transitional millisecond pulsars,
accreting X-ray binaries,
pulsar magnetosphere.

EDUCATION

Sabancı University, İstanbul, Turkey

Ph.D., Physics, June 2016

- Thesis Topic: *Investigation of isolated neutron stars with the fallback disk model*
- Supervisor: Ünal Ertan

İzmir Institute of Technology, İzmir, Turkey

B.S., Physics Department, June 2010

RESEARCH EXPERIENCE

- Postdoctoral Researcher - Strasbourg Observatory Jan. 2020 - Jan. 2021
- Postdoctoral Researcher - University of Southampton Feb. 2019 - December 2019
- Postdoctoral Researcher - Sabancı University Mar. 2017 - Jan. 2019
- Postdoctoral Researcher - Sabancı University Jul. - Sep. (2016)
- PhD. Research Assistant 2013 - 2016
Physical Properties and Evolutionary Connections of Young Neutron Star Systems, TUBITAK Project
Supervised by Ünal Ertan

- PhD. Research Assistant 2010 - 2013
 “*Investigation of the Evolution of Young Neutron Star Systems by Fallback Disks*”, TUBITAK Project
 Supervised by Ünal Ertan
- Undergraduate Research Project 2008 - 2010
 Supported by TUBITAK
 “*General Relativity and Palatini Formulation*”
 Supervised by Durmuş Ali Demir

REFEREED
 JOURNAL
 PUBLICATIONS

1. **Benli, O.**, J. Petri & D. Mitra ”Constraining millisecond pulsar geometry using time-aligned radio and gamma-ray pulse profile”, 2021, *Astronomy & Astrophysics*, 647, A101
2. **Benli, O.** “On the peculiar torque reversals and the X-ray luminosity history of the accretion-powered X-ray pulsar 4U 1626–67” 2020, *MNRAS*, 495, 3531
3. **Benli, O.** & Ertan, Ü. “Central Compact Objects: some of them could be spinning up?” 2018, *MNRAS*, 478, 4890
4. **Benli, O.** & Ertan, Ü. “Rotational and X-ray luminosity evolution of high-B radio pulsars” 2018, *New Astronomy*, 61, 78-83
5. **Benli, O.** & Ertan, Ü. “On the evolution of high-B radio pulsars with measured braking indices” 2017, *MNRAS*, 471, 2553
6. **Benli, O.** & Ertan, Ü. “Long-term evolution of anomalous X-ray pulsars and soft gamma repeaters” 2016, *MNRAS*, 457, 4114
7. **Benli, O.**, Çalışkan, Ş. & Ertan, Ü. “Long-term evolution, X-ray outburst and optical/infrared emission of SGR 0501+4516” 2015, *MNRAS*, 447, 2282
8. Ertan, Ü., Çalışkan, Ş., **Benli, O.** & Alpar, M. A. “Long-term evolution of dim isolated neutron stars” 2014, *MNRAS*, 444, 1559
9. **Benli, O.**, Çalışkan, Ş., Ertan, Ü., et al. “X-Ray Enhancement and Long-term Evolution of Swift J1822.3-1606” 2013, *ApJ*, 778, 119

JOURNALS
 REFEREED

The Astrophysical Journal (ApJ), Monthly Notices of the Royal Astronomical Society (MNRAS)

AWARDS &
 GRANTS

- BIDEB 2219 Postdoctoral Fellowship 2018
- Teaching Assistant Incentive Award, Sabancı University 2013
- Project Scholarship offered by Sabancı University 2010 - 2016
- TEV (Turkish Educational Foundation) Scholarship for undergraduate study 2005 - 2010

ACTIVE
MEMBERSHIPS

Turkish Astronomical Society (TAD)
International Astronomical Union (IAU)
European Astronomical Society (EAS)

COURSES
OFFERED

- PHYS101: General Physics I, TED University
 - 2023-2024 Spring (2 Sections)
 - 2023-2024 Fall
 - 2022-2023 Spring
- PHYS105: Mechanics & Electricity, TED University
 - 2022-2023 Spring
 - 2022-2023 Fall (2 Sections)
 - 2021-2022 Spring (3 Sections)
- LIBE120: Foundations and Frontiers of Science, TED University
 - 2023-2024 Spring (2 Sections)
 - 2023-2024 Fall (5 Sections)

TEACHING
ASSISTANT

- Astrophysical Disks Summer School August 2017
Feza Gürsey Institute, Istanbul, Turkey
- Academic Support Program (ADP) 2015 Fall - 2016 Spring
Peer study with students
Sabancı University
- Science of Nature II - “ *Module I: Climate change, Module II: Can we ever comprehend the human brain?*” Fall 2014
(I contributed also to the organization of the lecture content)
Instructors: Gözde Ünal, Gözde İnce
Sabancı University
- Science of Nature I - “ *Classical mechanics, statistical mechanics, electricity & magnetism and quantum mechanics*” 2010–2014
Instructors: M. A. Alpar, Ü. Ertan, E. Kalemci, E. Gogus, Y. Kaneko
Sabancı University
- Hakkı Ögelman Summer School (twice) 2011, 2012
“ Physics for Astronomers”
Instructor: M. Ali Alpar
The Science Academy, Istanbul

PROFESSIONAL
ACTIVITIES

Conferences

- “*SPINS-UK 2019, UCL*”, UK
(Contributed Talk) May 2019
- “*Jodrell Bank Centre for Astrophysics
The University of Manchester*”, UK
(Invited Talk) April 2019
- “*42nd Cospar Scientific Assembly - E1.10: Structure, Evolution
and Dynamics of Neutron Stars*”, Pasadena, CA, USA
(Contributed Talk) July 2018
- “*19th National Astronomy Conference*”, Ankara, Turkey Feb 2015
- “*Physics of Neutron Stars*” commemorating the 100th birthday of
Yakov Borisovich Zel’dovich, St. Petersburg, Russia
(Poster Presentation) July 2014
- “*Explosive Transients: Lighthouses of the Universe*”,
Santorini, Greece
(Poster Presentation) Sep 2013
- “*International Summer School and Conference on High Energy
Physics: Standard Model and Beyond (ISSCSMB-09)*”,
Muğla, Turkey 27 Aug - 04 Sep. 2009
- “*5th National Student Conference of Turkish Physical Society
(UFOK-5), METU Ankara/Turkey,*” June 2009
- “*3rd National Student Conference of Turkish Physical Society
(UFOK-3), ESOGU Eskisehir/Turkey,*” May 2007

Summer Schools

- “*Python Programming for Astronomers*”
Feza Gürsey Institute, Istanbul, Turkey Aug 2014
- “*International Research Advanced School in Physics -PHYSICS
OF STARS*”, ITAP, Marmaris, Turkey July 2011
- “*Summer School on Differential Geometry & Its Applications
in Theoretical Physics*”, Feza Gürsey Institute,
Istanbul, Turkey Aug 2009

COMPUTER
SKILLS

Unix-like operating systems (GNU/Linux),
Fortran, Python, C++, gnuplot and LaTeX

LANGUAGE
SKILLS

Turkish: Native language
English: Fluent (Exam: ÜDS2010, Grade: 92.25)
French: Basic