Mustafa Demirer

Email: mustafa.demirer@sabanciuniv.edu   **ORCID**: 0009-0000-9126-7824

LinkedIn: linkedin.com/in/mdemirer   **Citizenship**: Turkey

Research interests	Gamma-ray bursts, magnetars, computational astrophysics, machine learning

Education

Sabanci University	Istanbul, Turkey
MSc in Physics,	Expected February 2024
Faculty of Engineering and Natural Sciences	

Istanbul Technical University	Istanbul, Turkey
BSc in Electronics and Communication Engineering,	February 2022
Faculty of Electrical and Electronics Engineering	

Honors and scholarships

TÜBİTAK Project Scholarship	
"High Time Resolution Investigations of Magnetar Bursts"	2021 – 2024
(Grant No: 121F266)	

Publications

Time Resolved Spectral Investigations of SGR J1550−5418 Bursts Detected with Fermi/Gamma-ray Burst Monitor

Mustafa Demirer, Ersin Göğüş, Yuki Kaneko, Özge Keskin, and Sinem Şaşmaz.
(in preparation)

An Incisive Look into Magnetar Bursts: High Time Resolution X-ray Spectral Investigations of Bursts from SGR J1935+2154

Özge Keskin, Ersin Göğüş, Yuki Kaneko, Mustafa Demirer, Shotaro Yamasaki, Lin Lin, Oliver J. Roberts, and Chryssa Kouveliotou.
(Accepted by The Astrophysical Journal, expected to be published in Jan. 2024)

Research experience

MSc Thesis Project: Time Resolved Spectral Analysis of Magnetars

Supervisor: Prof. Ersin Göğüş   2022 – Present

Time Resolved Spectral Investigations of SGR J1550−5418 and SGR J1935+2154 Bursts Detected with Fermi/Gamma-ray Burst Monitor

BSc Graduation Project: A Search for Pulses from an Elusive Neutron Star in Supernova Remnant 1987A

Co-supervisors: Prof. Kazım Yavuz Ekşi, Dr. Sinem Şaşmaz   2020 – 2021

Search for pulses of a possible pulsar in SN 1987A remnant by using high-energy astrophysics methods.

Teaching experience

Teaching assistant, Sabanci University   Spring 2022 – Present

NS 101: Science of Nature I

NS 102: Science of Nature II

Assistantship in recitations as a master TA in fundamental science courses for freshmen at Sabanci University.

Industry experience

Yonga Technology Microelectronics R&D	Istanbul, Turkey

Internship   Summer 2021

Design and implementation of a ASIC device for Fast Fourier Transform and some filtering applications.

ITU Railway Systems Control and Automation Lab.   Istanbul, Turkey
Internship   Summer 2019
Writing a program to control the rail system model based on Sakarya Mithatpaşa Train Station using C# programming language.

Programming
Python; Bash-scripting; XSPEC-TCL; Excel (professional working proficiency).
C#; C; MatLab; Verilog (familiar with).

Languages
Turkish (native);
English (professional working proficiency);
French (elementary proficiency);
German (elementary proficiency);

ITU Astronomy Club   Istanbul, Turkey
President of supervisory board   2020 - 2021
Chairman   2018 - 2019