



Oguz Han ATAS

Education

2017 — **Doctor of Philosophy**, *Istanbul University*, Astronomy and Space Sciences, *GPA* – 3 11

2014–2017 **Masters of Commerce**, *Istanbul University*, Astronomy and Space Sciences, *GPA*

2010–2014 **Bachelor of Business Studies**, *Istanbul University*, Astronomy and Space Sciences, *GPA* – *2.95*.

Masters Thesis

Title Kinematics of Red Giant Branch Stars

Supervisors Professor Tansel AK

Description This thesis explored the Milky Way structure and how is evolving the Galaxy

Doctoral Thesis

Title Chemical Evolution of the Solar Neighborhood

Supervisors Professor Tansel AK

Description With this thesis, I am planning to improve a chemical evolution model of the Milky Way

Experience

Vocational

Workshop, ISTANBUL UNIVERSITY, DEPARTMENT OF ASTRONOMY, Istanbul. Workshop of Galactic Structure.

Detailed achievements:

- o Information of basic Milky Way structure via some seminar
- Learned how to download a data on internet and reduction using PYTHON
- Learned how to read data using most of PYTHON module (e.g. PyFits, Pandas, ASCII etc.)

Workshop, Erciyes University, Department of Astronomy, Kayseri. Workshop of Open Cluster.

Detailed achievements:

- Learned how to reduction an CCD image using IRAF
- o Finally determined photometric parameters for a star
- 2014 **Conference**, ISTANBUL UNIVERSITY, DEPARTMENT OF PHYSICS, Istanbul. 4th Physics Conference.

Detailed achievements:

- Learned what is the basic Cosmology, Atom and particle Physics, Basic Sciences and Mathematical Physics
- Finally showed what is the contribute on the tecnology
- 2013 **Summer School**, BOGAZICI UNIVERSITY, FEZA GURSEY INSTITUTE, Istanbul. Turkish Astronomical Society Physics of Astronomer

Detailed achievements:

 Law of force, Laws of thermodynamics, Law of gravity are informed like about basic Physics Law

Project Overview

2016–2017 **Scholarship Student**, TUBITAK.

Photometric Analysis of Open Clusters NGC 2818 and NGC 3603

Detailed achievements:

- Observational analyses gave opportunity to determine sensitive structural and astrophysical parameters as well as provide up-to-date information of clusters for literature.
- I achieved detailed analyses of open star clusters and practice on me.

2017–2018 Scholarship Student, BAP - Research Project.

Investigation of age-metallicity relationship with SDSS Data Around the Sun

Detailed achievements:

- In this project, the kinematics and orbital dynamics of the giant stars evolved around the Sun are calculated and the age-metal abundance relationship for the stars around the Sun are investigated.
- o I achieved detailed analyses of the giant stars and practice on me.

2018–2020 **Phd Project**, Council of Higher Education.

100/2000 CoHE Doctoral Scholarship Program

Detailed achivements:

We aim to develop a device for using in the astronomical fields. Also, with this program
will be contributed to some skills about the charge coupled device (CCD) in the photonics
laboratory.

2020–2021 **Scholarship Student**, TUBITAK.

Kinematic Investigation and Mapping of the Solar Neighborhood

Detailed achivements:

• With this project, we analyzed and calculated the kinematic parameters by using very recently observational datas.

2021- Scholarship Student, TUBITAK.

Investigation of the Scenarios of the Formation and Evolution of the Galaxy with Red Clump Stars

Detailed achivements:

- In this project, we are planning to obtain the initial condition parameters indicating the Milky Way formation.
- Also, it will make a high contribution to the studies of the chemical evolution model of the Milky Way.
- This project enabled for me who will support this study as scholarship to learn detailed analyses of the Milky Way stars and practice on me.

Computer skills

Basic IDL, C++, JAVA

Intermediate PYTHON, IRAF, XSPEC, LINUX, Microsoft Windows, Linux Server

Detailed achievements:

- I am able to know how is working many Astronomical (astropy, astroml, pyfits etc.) library on **Python**. And I am reading the data via Python modules and I can calculate statistical parameters (standart deviation, fitting slope, mean value etc.). Also, I am able to use multiprocessing to increase rapidity when calculating the parameters (esp. for big datas).
- I am able to reduction an CCD image with IRAF step by step. Especially, I have some experinces to reduction of photometric and spectroskopic CCD image on IRAF.
- I am informed what is needed basic stuffs while **observation**.
- Currently, I am learning how to make an analysis for a high energy source such as AGN with Xspec software.

Advanced Computer Hardware and Support

Publications

- Ataş, O.; Ak, T., 2019, Galactic metallicity gradient from the Red Giant Stars, Galactic Astronomy Workshop Proceedings Books.
- Kilerci Eser, E.; Goto, T.; Güver, T.; Tuncer, A.; Atas, O., 2020, H.Infrared colours and spectral energy distributions of hard X-ray selected obscured and Compton-thick active galactic nuclei, MNRAS.
- in prep. Döner, S.; Ak, S.; Bilir, S.; Önal Taş, Ö.; Plevne, O.; Bostancı, Z. F.; Yontan, T.; Ataş,
 O.; Ürgüp, H., 2021, The Age-Metallicity Relation in the Solar Neighbourhood from Red Giant Branch Stars of APOGEE, PASA.