Hala Alqubelat!

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Date of birth: 24th/Nov/1997

Research Interests

I am broadly interested in using synoptic surveys to study young stellar objects(YSOs). Most of my college work focused on studying star-forming regions (SFRs) in different molecular clouds and the spatial distribution of different classes of YSOs using various catalogues such as: The optical survey Gaia DR2/DR3, Infrared surveys such as: Spitzer, 2MASS, WISE and AllWISE, synoptic surveys such as: ZTF. Besides using infrared surveys to classify YSOs by color indices, I am also interested in analyzing the light curves of YSOs to understand the physics that stands behind their variability. Currently, I am working on publishing my research regarding the variability of T-Tauri stars and I am enrolled in CS50 course held by Harvard university.

Education

Speciality degree of Astronomy(Bachelor and Master combined) Sep. 2016 - June 2022
Ural Federal university, Ekaterinburg, Sverdlovsk oblast, Russia
Average unweighted GPA: 4.02/5

Course requirement projects

Mentored by Researcher Vadim Krushinsky at the Astrochemistry laboratory/ Ural Federal University and Dr. Anton Seleznev (Department of astronomy, geodesy and environmental monitoring/ Ural Federal Univeristy)

Planetary nebulae: determining the temperature of a white dwarf, electron density, and the relationship between the ratio of the radiation intensity in lines with absorption as a summer practice at Kourovka astronomical observatory July 2017

Distance determination to star-forming regions in Orion Molecular cloud using GAIA DR2 data May 2018

Distance determination to young stellar objects (YSOs) in IC 348, NGC 1333, and L 1450 in the Perseus Molecular cloud using GAIA DR2 data June 2019

Astrophysical practice at Kourovka astronomical observatory (Solar and stellar observations)/ July 2019

Analysis and classification of variable young stellar objects in the open cluster IC 1805 using infrared surveys and ZTF data June 2021

Variable YSOs in the photometric survey ZTF Sep. 2021

Thesis Theme: Searching for young stars in synoptic surveys June 2022

Relevant Coursework

Physics: Classical Mechanics
Astronomy: Star Clusters

Skills

- Programming languages: Python(Matplotlib, NumPy, SciPy, Pandas, AstroPy), C/C++
- Software: Microsoft office, LaTeX, visualisation tool for processing astronomical data (SAOImageDS9, Aladin)
- Languages: Arabic(Native), English (Fluent), Russian(Fluent), Spanish(Intermediate)

Job experience

- *Astronomy tutor* *Aug.2021-July 2022*

Extracurricular Activities

- I like to learn new languages. At the Spanish language club, I have met many Spanish native speakers with whom I developed my Spanish skills.
- Organized performances at the festival of nations' friendship at the Ural Federal University Spring 2018
- Virtual unconference ScIC 'Science is cool' conducted by PocketLab- training for science teachers Oct. 2020
- Writing in the Sciences-Stanford Univeristy July 2021
- ZTF Summer School conducted by Caltech under the theme 'variable stars' Aug. 2021
- Workshop by the Institute of Cosmos Sciences (ICCUB) under the theme ' Star Clusters: The Gaia Revolution' Oct. 2021
- A participant in the seminars of astrophysics conducted by Sternberg astronomical institute, Moscow State University June. 2022- til now

Referees

- Vadim Krushinsky – acting director of Kourovka astronomical observatory, researcher of Laboratory for Astrochemistry, Ural Federal University. Vadim.Krushinsky@urfu.ru, krussh@gmail.com
- Anton Vasunin – lead researcher of Laboratory for Astrochemistry, Ural Federal University. anton@urfu.ru, anton.vasyunin@gmail.com,