

Ali Akbar Kavei

Date of Birth: January 2, 1993

Home Page: aakavei.ir

E-mail: aliakbar.kavei@email.ucr.edu

EDUCATION

2022 – Present	University of California, Riverside, U.S. Ph.D. in Physics and Astronomy Advisor: Professor Brian Siana
2018 – 2021	University of Tehran, Tehran, Iran M.Sc. in Physics - Astrophysics
2012 – 2017	Sharif University of Technology, Tehran, Iran B.Sc. in Physics (Minor)
2011 – 2017	Sharif University of Technology, Tehran, Iran B.Sc. in Mechanical Engineering

RESEARCH INTERESTS

Astrophysics of Galaxies
Cosmology

RESEARCH EXPERIENCE

Oct. 2019 – Feb. 2021	Institute of Research in Fundamental Sciences (IPM), Tehran, Iran M.Sc. thesis, “ Telluric correction for absorption lines in the visible range ” Present a tool to correct for telluric absorption lines based on synthetic modeling of the Earth’s atmospheric transmission for the National Observatory of Iran.
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INTERNSHIP

Jul. 2016 – Jun. 2017	Javad Movafaghian Research Center of Intelligent Neuro-Rehabilitation Technologies, Tehran, Iran B.Sc. senior project, “ Analysis of Abductory torque of knee joint in patients with Genu Varum ” Correlation analysis of extra abduction torque and axial deformity at the knee joint in patients with Genu Varum by testing and data analyzing with Vicon Nexus software in the Gait analysis laboratory.
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HONORS, AWARDS, AND SCHOLARSHIPS

2022	Dean’s Distinguished Fellowship Award , University of California, Riverside, U.S.
2015	Team Leader of Iran in the 9th International Olympiad on Astronomy and Astrophysics (IOAA), Magelang, Central Java, Indonesia (Iran became 1st among 41 participating countries)
2011	Gold medalist at the 5th International Olympiad on Astronomy and Astrophysics (IOAA), Katowice, Poland (see results)
2010	Gold medalist at the 6th National Astronomy and Astrophysics Olympiad, Tehran, Iran
2010	Fellowship of National Elites Foundation of Iran , Awarded Full scholarship
2006	1st Rank in the field of Colored Pencils, 24th round of Art & Cultural Competitions, Tehran, Iran

TEACHING & WORK EXPERIENCE

Jul. 2023 – Present	Research Assistant, Department of Physics and Astronomy, University of California, Riverside, U.S.
Jan. 2022 – Jun. 2023	Teacher Assistant, Department of Physics and Astronomy, University of California, Riverside, U.S.
Apr. 2019 – May 2019	Teaching a short course in Astronomical Data Analysis, University of Tehran, Tehran, Iran
2012 – 2017	Member of the student committee of National Astronomy and Astrophysics Olympiad at Young Scholars Club (YSC), Tehran, Iran
2011 – 2021	Teaching Data Analysis, Observation skills, working with various observational tools, and Celestial Mechanics for National Astronomy and Astrophysics Olympiad for high school students at several top high schools in Iran

SELECTED COURSES

Ph.D.	Radiative Processes in Astrophysics (A+) Statistical Astronomy (A) Classical Mechanics (A) Electromagnetic Theory (A-) Fundamentals of Astrophysics (A-)	Thermodynamics and Statistical Mechanics (A+) Techniques of Observational Astrophysics (A) Dynamics and Evolution of Galaxies (A) Cosmology and Structure Formation (A-) Astrophysics of the Interstellar Medium (A-)
M.Sc.	Cosmology I (18.8/20) Advanced Classical Mechanics (19/20) Advanced Quantum Mechanics II (19/20)	Gravitation I (17/20) Electrodynamics I (19.5/20)
B.Sc. in Physics	Introductory Astronomy (20/20) Analytical Mechanics I (20/20)	Analytical Mechanics II (20/20)
B.Sc. in Mechanics	Interfacial Fluid Mechanics (18.7/20) Fluid Mechanics I (17.7/20) Heat Transfer I (17.3/20) Measurement and control systems (19/20)	Fluid Mechanics II (17.5/20) Thermodynamics I (18/20) Strength of Materials I (18.7/20) Statics (20/20)

CONFERENCES

Jan. 2020	Executive committee of National Conference on Gravity and Cosmology, University of Tehran, Tehran, Iran
Dec. 2019	The Physics Society of Iran Annual Meeting, University of Tehran, Tehran, Iran

COMPUTER SKILLS

Programming Languages	Python
Mathematical Analysis	MATLAB
Operating Systems	Mac, Windows, Linux
Astronomical Softwares	SAOImageDS9, Starry Night, CCDOPS
Engineering Software	SolidWorks, Vicon Nexus
Office Suite	Microsoft Office (Word, Excel, PowerPoint)
Other	L ^A T _E X

LANGUAGES

Persian (native) English (advanced) Arabic (beginner)

EXTRA-CURRICULAR ACTIVITIES

Painting	Oil Color, Designing, Colored Pencil
Swimming	Basic Certificate of 2nd grade Life Saving
Racing	License for racing in the class of Rotax Kart