

Shahrzad Mirsoltani

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EDUCATION

During my formative years, I had the privilege of receiving education at the Institute for the Intellectual Development of Children and Young Adults. This experience exposed me to a diverse array of classes that significantly shaped my intellectual growth. My burgeoning interest in astronomy and space sciences was sparked during this time. Subsequently, I pursued further studies in these fields at the Zaferanieh Educational Observatory, a renowned institution in Iran for astronomy education. Participating in various courses at a young age enabled me to grasp the fundamentals of these sciences even before turning 18. In high school, I selected physics and mathematics as my major subjects, laying the groundwork for my academic journey. This foundation propelled me to pursue higher education in physics at a university in Tehran. Concurrently, I embarked on a role as an Astronomy Educator for Children, enriching my understanding of the subject through practical teaching experiences and additional coursework.

Main Projects

Kargahe Setare Project:

The Kargahe Setare Project, launched in 2017, promotes astronomy and space sciences among Iranian youth worldwide. Using digital tools, our initiative engages children from remote Iranian villages to major global cities. We offer diverse educational essays, online workshops, podcasts, and videos, bridging the gap between academia and young learners. The project grew significantly during the pandemic, reaching over 10,000 children globally. Today, hundreds of students from 50+ countries actively participate in our online classes. In 2022 and 2023, our project received acclaim at the European Space Agency and the University of Toronto. Despite our achievements, we remain dedicated to inspiring young minds globally and enhancing our understanding of the cosmos.

Representation of the Sky in the Land of Iran:

The "Representation of the Sky in the Land of Iran" project intertwines astronomy, art, and history through Iran's ancient heritage. Inspired by my childhood interest in archaeology and art, I initiated this project six years ago to explore how Iranian manuscripts, pottery, coins, and other artifacts depict the heavens. In collaboration with the University of Tehran and Dr. Amir Mohammad Gamini at the Institute for the History of Science, I've expanded the project. My research involves cataloging celestial depictions in museums worldwide, aiming to enrich astronomy education and highlight Iran's indigenous astronomical knowledge. This project aims to revolutionize astronomy education for Iranian youth by leveraging our cultural heritage. Our database will serve as a valuable resource for future researchers in this field. Presentations at Kagoshima University in 2023 and the International Council of Museums (ICOM) of Iran in 2024 have generated significant interest from museum professionals, researchers, and educators.

EXPERIENCES

Jul 2024	Published an essay in Nojum magazine on exoplanets for kids. This marked the first time in its 33-year history that Nojum magazine featured pages dedicated to children. (No. 292)
Mar 2024	Succeeded in showcasing hundreds of Iranian children's paintings in the Kargahe Setare project with the support of Pouria Nazemi and Iranian-American astronaut Jasmine Moghbeli aboard the International Space Station.
May 2023	Conducted a comprehensive lecture on strategies for astronomy education and outreach for graduate physics students at Alzahra University, Tehran, Iran
Aug 2022	Hosted an online interview with Dr. Karan Molaverdikhani, a member of the James Webb Space Telescope, Kargahe Setare
May 2022	Hosted an online interview with Ms. Maryam Safahani, member of the Children's Book Council of Iran, on the pedagogy of astronomy books for children, Kargahe Setare
Nov 2021	Interviewed by the Islamic Republic of Broadcasting on science book recommendations as a Children's astronomy expert for the ' Charkh' program, IRIB TV4.
Nov 2021	Hosted an online interview with Dr . Sima Ghasemi and Dr . Mansour Vessali, Faculty members of Shahid Rajaee University, on the pedagogy of scientific concepts in children's and youth's books, Children's Book Council of Iran.
May 2021	Online interview with the Iranian Space Agency as a Children's astronomy expert on the role of women in space.
May 2021	Hosted an online interview with Dr. Erfan Khosravi on how to connect astronomy and paleontology for kids, Kargahe Setare.
May 2021	Hosted an online interview with Dr. Irene Shivaee, a member of the James Webb Space Telescope research team, discussing the life of an astrophysicist for kids, Kargahe Setare.
May 2021	Online interview with the Iranian Association for Popularization of Science as a Children's astronomy expert on the history of promoting astronomy for kids in Iran.
May 2021	Hosted an Online interview with The Iranian Encyclopedia for Young People's Astronomy Team on the methods of writing astronomy articles for youth, Kargahe Setare
May 2021	Online interview with the Iranian Space Agency as a children's astronomy expert on how to start promoting astronomy for kids.
May 2021	Online interview with the Astronomical Society of Iran as a Children's astronomy expert on new methods of teaching astronomy in elementary schools.
May 2021	Online interview with Nojum magazine as a Children's astronomy expert on experiences teaching astronomy to kids
Mar 2021	Interview with the Islamic Republic of Broadcasting on my career and life experiences as a talented individual and children's astronomy expert in the Ibekr program, IRIB TV4
Mar 2021	Interview with the Islamic Republic of Broadcasting as a children's astronomy expert on teaching science to children, in the 'Science is Better' radio program.

Oct 2020	Published a science fiction story on space sciences titled 'A Museum in Space'.
Oct 2020	Writer and performer of the children's section in the Educational Astronomy show 'Marzhaye Bikarane Faza' during World Space Week at the Iranian Space Agency.
Aug 2020	Online interview with Iran National Science and Technology Museum exploring whether teaching astronomy to children offers educational or economic opportunities.
Apr 2020	Online interview with Nojum magazine as a children's astronomy expert on the use of astronomical mobile phone applications during the COVID-19 pandemic
Apr 2020	Hosted an online interview with Siavash Saffarianpour on the relationship between astronomy for children and the media, Kargahe Setare
Apr 2020	Hosted an online interview with Dr. Pejman Norouzi on teaching astronomy to children in Iran, Kargahe Setare
Apr 2020	Hosted an online interview with Sepideh Sharbaf on experiences of teaching astronomy to children, Kargahe Setare
Apr 2020-Present	Writer and performer of children's section in the Educational Astronomy Podcast 'Space Station,' directed by Siavash Saffarianpour.
Mar 2020	Online interview with the Voice of Cosmos Astronomy Group as a children's astronomy expert on fostering children's interest in astronomy during the COVID-19 pandemic.
Dec 2019-Present	Researcher on 'Representation of the Sky in the Land of Iran,' a project based on astronomy and Iranian ancient heritage at the Institute of the History of Science, University of Tehran.
Jun 2019-Oct 2019	Writer and performer of the children's section in the Educational Astronomy show, 'Milky Way'.
Jul 2018	Published a report on visiting CERN (The European Organization for Nuclear Research) in an article in Nojum Monthly Magazine (No. 269)
Apr 2017	Director of the children's section in the educational scientific show 'Telescope' on Aparat.
Jun 2015	Published an essay on children's astronomy in Aseman-Nama Magazine (No. 1)
Sep 2010	Collaborated with the citizen science project of Kepler mission in NASA (Zaferanieh Educational Observatory.)

TEACHING EXPERIENCE

Astronomy Teacher (Teaching various courses of astronomy to children and youths)

May 2021	Kharazmi University, Tehran, Iran
Apr 2020	Kharazmi University, Tehran, Iran
Jun 2019-Sep 2020	Zaferanieh Educational Observatory, Tehran, Iran
Sep 2018-Jan 2021	HannanSchools, Tehran, Iran

Jun 2018-Present	Kargahe Setare, international online classes
Jun 2018-Present	Nojourn Magazine Centre, Tehran, Iran
Jun 2018-Present	Robokids Complex, Tehran, Iran
Sep 2014-May 2016	Kooshesh High School, Tehran, Iran
Jun 2013-May 2020	Nightsky Institute, Tehran, Iran

WORK EXPERIENCE

Apr 2024-Present	European Space Agency (ESA), ESAC, Madrid, Spain Astronomy Educator and Collaborator of CESAR Team
Jan 2021-Present	Children's Book Council of Iran, Tehran, Iran - Member of the specialized Science Group of the Children's Book Council - Educator in a teacher training program focused on using children's astronomy as a tool to enhance other children's knowledge and abilities
Oct 2020-Oct 2021	Iranian Space Agency, Tehran, Iran Teacher of online global Space science and technology workshops and webinars for children during World Space Week and during the COVID-19 pandemic organized by the Iranian Space Agency. Topics included: - Influences of Satellites in space on human lives on earth - History of space ages - Function of rockets - Space Missions and their technology - Life in the space station - Space mining - Future of humans and space missions in space
Jun 2020-Present	Space Scoop Project (UNAWA) Leiden University, Netherlands Member of the Space Scoop Project as a translator for the children's astronomy project conducted by UNAWA
Jun 2020-Present	Iranian Encyclopedia For Young People, Children's Book Council of Iran, Tehran, Iran - Member of the Astronomy Group of experts for the Iranian Encyclopedia for Young People and Children's Book Council of Iran - Writer of Astronomy topics for the Iranian Encyclopedia For Young People
Mar 2020-Present	Nojum Magazine, Tehran, Iran Writer for Nojum Magazine, contributing articles for both adults and children

Teacher of online global astronomy workshops and webinars for children during the COVID-19 pandemic, covering topics such as:

- Solar System
- Observational Astronomy
- Galaxies and Universe
- Stars and Stellar Evolution
- History of Astronomy
- Exoplanets
- Extraterrestrial Life

Dec 2018

Ahwaz Astronomy Center, Ahwaz, Iran

Writer and Performer of a traditional Iranian drama (Naqqali) on the history of astronomy

Dec 2018

Tehran Astronomy Club, Tehran, Iran

Writer and Performer of a traditional Iranian drama (Naqqali) on the history of Astronomy

Aug 2017-Present

Kargahe Setare, online-based Kids Astronomy Project

- Founder and Performer
- Teacher and Content Creator
- Education and Outreach Specialist

Led an online-based astronomy promotion project for children, focusing on education and outreach activities.

Jun 2013-May 2020

Nightsky Institute, Tehran, Iran

Content Creator (Produced educational and scientific content for the Nojumestan children's astronomy project, primarily online-based)

Apr 2009 -Apr 2018

Zaferanieh Educational Observatory, Tehran, Iran

International Astronomy Day program

- Astronomy Promoter
- Assisted in conducting the event
- In charge of the scientific section for the children's astronomy booth
- Delivered lectures on astronomy for adults
- Writer and performer of a traditional Iranian drama (Naqqali) on the history of Astronomy

ATTENDED SEMINARS

Jul 2024

Participated in AEACI 2024 Workshop in Tenerife, Canary Islands, Spain

Jul 2024

Speaker at COSPAR 2024 Conference, 45th Scientific Assembly, Busan, South Korea

Jul 2024

Invited Speaker to ICOM Iran (International Council of Museums), Tehran, Iran

Apr 2024

Participant and presenter on the 13th.Astronomy Conference, European Space Agency, Madrid, Spain

Nov 2023	Scientific Organizing Committee for the 5 TH Shaw-IAU Workshop on Astronomy for Education, IAU
Sep 2023	Participant and presenter at ESA-GTTP 2023, European Space Agency, Madrid, Spain
Aug 2023	Speaker at Global Hands-On Universe Conference, University of Kagoshima, Japan
Jul 2023	Participated virtually in AEACI 2024 Workshop in Tenerife, Canary Islands, Spain
May 2023	Speaker at the 2023 AstroEdu Conference, University of Toronto, Canada
Nov 2022	Participant in the 4 th Shaw-IAU Workshop on Astronomy for Education, IAU
Oct 2022	Collaborator and speaker at ESA-GTTP 2022, European Space Agency, ESAC, Madrid, Spain
Aug 2022	Participated in the Global Hands-On Universe Conference 2022, Virtually, worldwide
Oct 2021	Speaker in Specialized panel on the role of women in space-based businesses, Iran Space Research Center, Tehran, Iran
Jul-Sep 2021	Visualizations of the Heavens Database Summer Workshops, Virtually, Max Planck Institute for the History of Science, Berlin, Germany
Jul-Aug 2020	Space in Your Living Room Workshops, spaceEU project, Leiden University, Netherlands
Oct 2017	Guided Tour at the European Organization for Nuclear Research (CERN), Geneva, Switzerland
Feb 2017	Astrophotography and image processing workshop at TWAN, Zanjan, Iran
Sep 2012	Astrophotography and image processing workshop at TWAN, Zanjan, Iran
Dec 2011	Physics Day Program, Department of Physics, University of Tehran, Tehran, Iran
Sep 2011	4 th Sufi Observational Astronomical Competition, hosted by IAAS, Shiraz, Iran
Apr 2011	10th Messier Marathon Observational Astronomical Competition, hosted by IAAS, Khorasan, Iran
Feb 2011	1st Iranian Star Party, hosted by IAAS, Qeshm, Iran
Sep 2009	3rd Sufi Observational Astronomical Competition, hosted by IAAS, Shiraz, Iran
May 2009	9th Messier Marathon Observational Astronomical Competition, hosted by IAAS, Khorasan, Iran

NOTABLE COURSES

Oct 2020 -Jun 2021	Children's Book Council of Iran, Tehran, Iran • Child Literature • History of Child Literature • History of Children's Illustration • Illustration of children's book • Fantasy in Child Literature • Children's Poetry • Scientific books For children
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- Translation in Children's Literature
- Children's Publications
- Electronic Works On Children's Literature

Jun 2008-Sep 2011 Zaferanieh Educational Observatory, Tehran, Iran

- Spherical Astronomy
- Astrophysics
- Cosmology
- History of Astronomy
- Gadgets
- Constellations
- Solar System
- Astronomy Projects

Summer 2010 Science and Astronomy Center of Tehran, Tehran, Iran

- Advanced observational astronomy course

HONORS AND AWARDS

Jun 2024 **Iranian Encyclopedia For Young People, Children's Book Council of Iran, Tehran, Iran**

Honored by the Head of the Iranian Encyclopedia for Young People and the Children's Book Council of Iran for contributions to astronomy topics

Dec 2023 **Cheragh Prize Foundation, Tehran, Iran**

Awarded the 8th Cheragh Prize for: "Iranian Science Promoter of the Year."

Oct 2023 **Iranian Encyclopedia For Young People, Children's Book Council of Iran, Tehran, Iran**

Honored by the Head of the Iranian Encyclopedia for Young People and the Children's Book Council of Iran for contributions to astronomy topics

Sep 20223 **Box Prize Foundation, Tehran, Iran**

The Spacestation podcast team received the box prize for the best scientific podcast in Iran.

Dec 2022 **Cheragh Prize Foundation, Tehran, Iran**

Nominated for the 7th Cheragh Prize.

Dec 2021 **Cheragh Prize Foundation, Tehran, Iran**

Nominated for the 6th Cheragh Prize.

Oct 2021 **Iranian Space Research Center, Tehran, Iran**

Honored by the head of the Iranian Space Research Center for participating as one of the main speakers in the specialized panel on the role of women in space-based businesses.

Feb 2021	Iranian Association For Popularization of Science (IAPS), Tehran, Iran Awarded 21st Iran's Pop-Science Award (Tooran Mirhadi Award) for promoting astronomy for children and contributing to the popularization of science.
Dec 2020	Cheragh Prize Foundation, Tehran, Iran Nominated for the 5th Cheragh Prize
Oct 2020	Iranian Space Agency, Tehran, Iran Honored by the head of the Secretariat of the Supreme Space Council of Iran for organizing space sciences and technologies workshops and webinars for children during World Space Week 2020.
Oct 2020	Iranian Space Agency, Tehran, Iran Honored by the head of the Iranian Space Agency for promoting space science and technologies for children during World Space Week 2020.
Sep 2020	Iranian Association For Popularization of Science (IAPS), Tehran, Iran Nominated for the 21st Iran's Pop-Science Award.
Feb 2020	Iranian Space Agency, Tehran, Iran Honored by the head of the Iranian Space Agency for conducting "Kargahe Setare" a specialized astronomy project for children aimed at promoting astronomy and space sciences.
Apr 2013	Zaferanieh Educational Observatory, Tehran, Iran Honored by the head of Zaferanieh Educational Observatory for organizing Astronomy Days.

SKILLS

Strong foundations in Physics and Astronomy, children's education, fast learner, Good communication skills, public education and outreach. Experienced in using various software including Microsoft Office, Zoom, Photoshop, and Canva for content creation. Proficient in managing Social media platforms such as Instagram, Facebook, LinkedIn, Telegram Channel, WhatsApp, Twitter, and YouTube with over 30,000 followers

INTERESTS

Physics	Astrophysics, Cosmology, Particle Physics
Astronomy	Exoplanets, History of Astronomy
Mathematics	Applied Mathematics, Geometry, Graph Theory
Children's Education	Promoting Science for Children, Astronomy for Children, Writing and Illustrating Science Books
Ancient Heritage.	Archeology, History, Historical Research

LANGUAGES

English: Proficient

Persian: Native

REFERENCES

Amir Mohammad Gamini

- Assistant Professor, Institute for the History of Science, University of Tehran
- Visiting lecturer, University of AmirKabir (2013-2015)
- Ph.D. in History and Philosophy of Science
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Rosa Doran

- Member of the International Astronomical Union (IAU)
- Astronomy Educator at NUCLIO/GHOU/Portuguese Astronomical Society
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Sandra Benitez Herrera

- Education Scientist and ESAC Communication Officer
- Ph.D. in Philosophy and Astrophysics
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Babak Amin Tafreshi

- Amateur astronomer
- Director of The World At Night (TWAN)
- National Geographic photographer
- Science Journalist
- Email: office@babaktafreshi.com