

Vida Saeedzadeh

Ph.D. Candidate

Department of Physics and Astronomy, University of Victoria, Victoria, BC., V8W2Y2, Canada | +1 (778) 636-9310
vidasaeedzadeh@uvic.ca | [ADS Profile](#) | [Personal Website](#)

Education

Ph.D. in Astrophysics - University of Victoria

Victoria, BC | September 2019 - Expected April 2024

- Supervisor: Prof. Arif Babul, GPA: 8.0/9.0

M.Sc. in Astrophysics - Alzahra University

Tehran, Iran | September 2015 - February 2018

- Supervisor: Prof. Taghi Mirtorabi, GPA: 4.0/4.0
- Dissertation title: "Study on the fully dynamical and aspherical solutions in modified gravity theories displaying the Vainshtein screening mechanism"

B.Sc. in Physics - Iran University of Science and Technology

Tehran, Iran | September 2010 - September 2014

- GPA: 3.8/4.0

Research Experience

Research Assistant

Victoria, BC | September 2019 - present

University of Victoria

- Exploring origin and dynamic of multiphase structure of circumgalactic medium, Investigating the statistics and properties of dual/multiple AGNs and their host galaxies in contrast to single AGNs, Exploring the properties of host galaxies of nano-Hertz Gravitational Wave sources using state-of-the-art Romulus cosmological simulations

Guest Researcher

New York City, NY | September 2023 - October 2023

Simons Foundation, Center for Computational Astrophysics

- Developing a novel model for CGM refinement to enhance the resolution of CGM around galaxies without enhancing the galaxy resolution

Research Assistant

Tehran, Iran | September 2018 - August 2018

Shahid Beheshti University

- Studied on dynamics of a scalar field which evolve from light-dark matter-like behavior to a combination of heavy dark matter-like and dark energy-like behavior

Research Assistant

Tehran, Iran | September 2017 - September 2018

Alzahra University

- Studied on the fully dynamical and aspherical solutions in modified gravity theories displaying the Vainshtein screening mechanism

Publications

- S Lyla Jung, Douglas Rennehan, **Vida Saeedzadeh**, Arif Babul, Michael Tremmel, Thomas R Quinn, S Ilani Loubser, E O'Sullivan, Sukyoung K Yi, *Massive central galaxies of galaxy groups in the ROMULUS simulations: an overview of galaxy properties at $z = 0$* , Monthly Notices of the Royal Astronomical Society, Volume 515, Issue 1, September 2022, Pages 22–47
- **Vida Saeedzadeh**, S Lyla Jung, Douglas Rennehan, Arif Babul, Michael Tremmel, Thomas R Quinn, Zhiwei Shao, Prateek Sharma, Lucio Mayer, E O'Sullivan, S Ilani Loubser, *Cool and gusty, with a chance of rain: dynamics of multiphase CGM around massive galaxies in the Romulus simulations*, Monthly Notices of the Royal Astronomical Society, Volume 525, Issue 4, November 2023, Pages 5677–5701
- **Vida Saeedzadeh**, Suvodip Mukherjee, Arif Babul, Michael Tremmel, Thomas R. Quinn, 2023. *Shining Light on the Hosts of the Nano-Hertz Gravitational Wave Sources: A Theoretical Perspective* [Accepted for publication in MNRAS]
- **Vida Saeedzadeh**, Douglas Rennehan, Arif Babul, Michael Tremmel, Thomas R. Quinn, 2023. *Dual AGNs: Detecting bright AGN pairs onto the path to binary black holes and black hole mergers* [In Prep]

Work Experience

Student Mentor

Victoria, BC | September 2021 - present

University of Victoria

- Mentored two students and supervised their research projects

Communications Officer

Victoria, BC | September 2021 - present

University of Victoria, Astronomy Research Centre

Lab Instructor

Victoria, BC | September 2019 - September 2020

University of Victoria

- ASTRO-101, ASTRO-102

Teaching Assistant

September 2013 - September 2021

[Multiple Universities]

- Student Seminar, University of Victoria
- Introduction to Cosmology, Alzahra University
- General Physics, Iran University of Science and Technology

Volunteer Experience

- Executive Board Member N-Body Shop code of conduct | University of Victoria | 2021 – 2023
- Academic Mentor Physics Dept Mentorship Program | University of Victoria | 2020 – present
- Academic Representative PAGSA | University of Victoria | 2020 – 2022
- Event Organizer and Chair Astronomy Seminar Series | University of Victoria | 2020 – present
- Organizer International Orientation Day | University of Victoria | 2020
- Board of Directors Member Students Scientific Association, School of Physics | IUST | 2010 – 2013
- Executive Board Member Star Observation Tours | Loot Sky Astronomy Centre | 2010 – 2012

- Co-Founder

Astronomy Scientific Association | RCIEE | 2010 – 201

Awards

-
- | | |
|--|--|
| • Award to attend and present at CASCA 2023 | Canadian Space Agency, 2023 |
| • Faculty of Graduate Student Award | University of Victoria, 2023 |
| • Award to attend and present at COSPAR 2022 in Athens, Greece | Canadian Space Agency, 2022 |
| • Fully Scholarship to Attend IHPG Summer School in Athens, Greece | SciNet HPC, 2022 |
| • Criswick Award | University of Victoria, 2020 |
| • Graduate Award | University of Victoria, 2020 |
| • Graduate Fellowship | University of Victoria, 2019 |
| • Graduate Merit Award | Alzahra University 2015 - 2017 |
| • Undergraduate Merit Award | Iran University of Science and Technology, 2010 - 2014 |

Invited Talks

-
- Center for Computational Astrophysics – Simons Foundation, 2023: Shining Light on the Hosts of the Nano-Hertz Gravitational Wave Sources
 - Princeton University, 2023: Supermassive binary blackhole and galaxy connection: Where do we expect the gravitational wave sources detectable from Pulsar Timing Array to reside?
 - Yale University, 2023: Cool and gusty, with a chance of rain: Dynamics of multiphase CGM around massive galaxies in the Romulus simulations
 - Max Planck Institute for Astronomy, 2023: Cool and gusty, with a chance of rain: Dynamics of multiphase CGM around massive galaxies in the Romulus simulations
 - Center for Computational Astrophysics – Simons Foundation, 2023: Multiphase structure of CGM in Romulus simulations
 - University of Wrocław, 2022: Dual AGNs: Detecting bright AGN pairs onto the path to binary black holes and black hole mergers
 - Institute of Computational Science, University of Zurich, 2022: Dual AGNs: Detecting bright AGN pairs onto the path to binary black holes and black hole mergers

Presentations

-
- Canadian Astronomical Society AGM, 2023: Multiphase CGM around massive galaxies
 - 44th Assembly of Committee on Space Research COSPAR, 2022: Dual AGNs: Detecting bright AGN pairs onto the path to binary black holes and black hole mergers
 - International High-Performance Computing Summer School, 2022: Studying galaxies' circumgalactic medium by developing hyper refinement model using HPC
 - 51st annual meeting of the Canadian Astronomical Society, 2021: Dual AGNs: Detecting bright AGN pairs onto the path to binary black holes and black hole mergers
 - British Columbia's Cosmology Meeting, 2021: Dual AGNs
 - Kavil Institute for Astronomy and Astrophysics Conference on Gas in Galaxies 2021: Resolving cold circumgalactic medium gas in Romulus simulations
 - 50th annual meeting of the Canadian Astronomical Society, 2021: Resolving cold circumgalactic medium gas in Romulus simulations
 - British Columbia's Cosmology Meeting, 2020: The origin of the multiphase structure in the intracluster medium
 - Alzahra University Cosmology Forum, 2016: Experimental tests of general relativity