

Curriculum Vitae (Brief)—Prof. Samar Safi-Harb

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Education

1997	University of Wisconsin, Madison, USA	PhD (Physics)
1993	University of Wisconsin, Madison, USA	MS (Physics)
1990	American University of Beirut, Lebanon	BS (Physics), High Distinction
1987	L'ecole des Saints Coeurs, Lebanon (French)	High-School Baccalaureat, High Distinction

Employment and Affiliations

2013-present	Full Professor , Dept of Physics and Astronomy , University of Manitoba
2019-2021	Equity, Diversity and Community Lead , Faculty of Science , University of Manitoba
2014-present	(Canada)'s NRC Volunteer Visitor Agreement , NRC/Herzberg , B.C.
2005-present	Center for Advanced Mathematical Sciences (CAMS) associate, American University of Beirut
2004-2013	Associate Professor , Dept of Physics and Astronomy, University of Manitoba <i>Career Interruptions: Maternity Leaves in 2006-2007 and 2008-2009</i>
2004-2006	Adjunct Associate Professor , the George Washington University , Washington, D.C., USA
2000-2004	Assistant Professor, NSERC University Faculty Award fellow Dept of Physics and Astronomy, University of Manitoba
1997-2000	(US) NRC Research Associate , National Academy of Sciences, NASA's Goddard Space Flight Center , Greenbelt, Maryland, USA
1991-1997	Research & Teaching Assistant , Dept of Physics , University of Wisconsin, Madison , USA
1988-1991	Physics Lab Assistant , Dept of Physics , American University of Beirut, Lebanon

Professional Societies Affiliations

The Canadian Astronomical Society (CASCA), the American Astronomical Society (AAS)—High Energy Astrophysics Division (HEAD), the Canadian Association of Physicists (CAP), the American Physical Society (APS), the American Association for the Advancement of Science (AAAS), The International Astronomical Union (IAU), the Committee for Space Research (COSPAR), the Royal Astronomical Society of Canada (RASC)

Research Interests

- High-Energy Astrophysics, Galactic Science, X-ray missions and multi-wavelength observations
- Compact Objects: Neutron Stars and their jets, Magnetars, Microquasars
- Supernovae and their Remnants (SNRs), Pulsar Wind Nebulae (PWNe) and Cosmic Jets
- Cosmic Rays; Particle acceleration in astrophysical shocks; numerical simulations
- Gravitational Wave Astrophysics, Compact Objects Mergers

Awards, Fellowships and Distinctions

2020	Elected as the Canadian Astronomical Society (CASCA) Vice-President (President-Elect)
2018	Frances E Walker Lectureship at the George Washington University (DC) <i>The Frances E. Walker Lecture Series brings prominent women physicists and astrophysicists to campus to highlight their accomplishments and connect mentors with students.</i>
2017	WXN (Women's Executive Network) Canada's Most Powerful Women, Top 100; Trailblazers and Trendsetters Category <i>This award recognizes women who are either the first in their field or have made a major impact on it, and who have made a great contribution to Canadian society in any field of endeavour</i>
2015	YMCA-YWCA Women of Distinction Award; Science, Technology and Research. <i>"Dr. Safi-Harb established a world-class research program in her field, playing a key role in producing the first generation of Manitoba graduates in astronomy and astrophysics. Thanks to her efforts, Manitoba has finally joined the big guns in space high-energy missions, thus putting us on the world map for space astrophysics."</i>
2013	Canada Research Chair in Supernova Remnants Astrophysics. Tier 2 (renewed)
2007	Canada Research Chair in Supernova Astrophysics, Tier 2
2004	University of Manitoba Rh Award <i>given to academic staff members who are in the early stages of their careers and who display exceptional innovation, leadership and promise in their respective fields</i>
2003, 2000	NSERC University Faculty Award Fellow Renewed in 2003
1999	NASA Long Term (5-year) Space Astrophysics Award
1997	U.S. National Academies of Science, National Research Council Fellowship NASA's Goddard Space Flight Center
1997	Hariri Foundation Award of Excellence
1993	<i>for M.S. and Ph.D. degrees in Physics at U. of Wisconsin-Madison (GPA of 4.0/4.0 in both degrees)</i>
1991	Hariri Foundation Sponsorship <i>for ranking the top student in the Faculty of Arts and Sciences at the American U. of Beirut</i>
1990	Philippe Hitti Prize awarded for the best academic spirit at American University of Beirut), Lebanon
1990	Graduation with High Distinction American University of Beirut, Lebanon
1987-1990	Dean's Honours List , American University of Beirut

Highly Qualified Personnel (HQP)

Supervised about 50 HQP (high school students, undergraduate and graduate students, and postdocs/research associates) with a significant fraction being females and members who have won awards/fellowships, or had been featured in press releases highlighting their research.

External Funding

Safi-Harb's research has been funded by NSERC (Discovery Grants and Canada Research Chairs programs), the Canadian Institute for Theoretical Astrophysics (CITA), the Canadian Space Agency (CSA), Canada Foundation for Innovation (CFI), the Manitoba Research and Innovation Fund (MRIF)/Research Manitoba, MITACS — and (in the US) NASA and the National Research Council.

Leadership

(A) Science Working Group Activities in International Astrophysics Missions:

Lead/co-lead or science working group member on several missions across the electromagnetic spectrum: [Colibri](#) (lead of neutron stars science group), [CASTOR](#), [Hitomi](#) (co-lead of SNR and PWN science), [VLASS](#), [TMT](#), [CTA](#), [ATHENA](#), [HESS](#) (associate member) and [GALFACTS](#)

(B) National and International Committees and Community Service:

Membership in several national and international committees and policy-making bodies. These *include*:

- NSERC Discovery Grants (Evaluation Group; 2021-2022 Section Chair)
- NASA Senior Review of the Chandra X-ray Observatory, NASA's Chandra Peer review panel Chair and member, NASA's Chandra Users Committee
- The Canadian Astronomical Society (CASCA) board of Directors (2011-2014; 2018-2019) and Vice-President (2020-2021)
- Canada's National Research Council (NRC) Canadian Time Allocation Committee
- Joint Committee for Space Astronomy
- ACURA Advisory Council for the Square Kilometre Array
- Referee for NASA and NSERC (peer reviews and grant/fellowship applications), the European Space Agency's XMM-Newton Allocation committee, and astrophysics journals (including MNRAS, ApJ, and Nature).

(C) Scientific Organizing Committees:

Member and Chair of numerous national and international conferences, including *chairing* the 2020 (now 2022) Women in Physics Canada Conference, the [COSPAR \(Committee for Space Research\) Supernova Remnants Event in Germany](#), [the Canadian Astronomical Society meeting held jointly with Congress 2004](#), and acting as scientific organizing committee member on several International Astronomical Union meetings.

(D) Equity, Diversity and Inclusion (EDI) in Science:

Inaugural Faculty of Science Lead for Equity, Diversity and Community. Founder of the Physics & Astronomy EDI committee. Chair of the Faculty of Science Indigenous Initiative working group that helped develop and launch the [Wawatay](#) program aimed at Indigenous students in Science. Founder and organizer of the Faculty of science [SPOT](#) (Science Public Online Talks) series during COVID-19.

Teaching and Public Outreach

- Played a leadership role in the development and establishment of the astronomy program at the University of Manitoba, the only PhD-granting institution in the province. Taught and developed courses at various levels from 1st year to graduate level.
- Active in public outreach, media interviews, school visits, women in physics conferences, Indigenous initiatives and community service.
- Strive to be a role model, especially for women/under-represented groups — [Woman of Influence](#) (interview).

Research Publications and Catalogues:

Research Publications on NASA's Astrophysics Data System: [ADS link](#)

- The high-energy SNR catalogue frequently accessed worldwide, SNRcat (Ferrand & Safi-Harb 2012): <http://snrcat.physics.umanitoba.ca>
- The Supernova Models and Images at Radio Frequencies, SMIRF (West, Safi-Harb, Jaffe et al. 2016): <http://www.physics.umanitoba.ca/snr/smurf/>