Vera Rubin Early Career Prize



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The Vera Rubin Early Career Prize recognizes annually an early career dynamicist, who demonstrates excellence in scientific research in Dynamical Astronomy or closely related fields, which has had impact and influence on these fields, and shows a promise of continued excellence as demonstrated by past practice in research, teaching, and the advancement and support of the field of Dynamical Astronomy.

The prize recipient is honored with a certificate, a \$1000 honorarium, and an invited lecture at the annual meeting of the DDA with waived registration.

The 2025 prize recipient is <u>Dr. Samuel Hadden</u> [1] of the Massachusetts Institute of Technology.

She will give a lecture at the 2025 56th annual meeting of the DDA. The previous prize winners include, <u>Sarah Millholland</u> [2], <u>Carl Rodriguez</u> [3], <u>Kathryn (Kat) Volk</u> [4], <u>Ann-Marie Madigan</u> [5], <u>Jacqueline Faherty</u> [6], and <u>Jo Bovy</u> [7] (<u>full list of past winners</u> [8]).

You can donate to the Vera Rubin Early Career Prize fund through the <u>AAS website</u> [9].

History of the prize and Vera Rubin

On December 14, 2016, the DDA announced to its members via email the creation of a new DDA Early Career Prize to recognize extraordinary contributions by an early career dynamicist. Two weeks later, following the sad news of the passing of long time DDA Member and galactic dynamicist, Vera Rubin, the DDA Committee voted to name this new prize in her honor.

Vera Rubin, who spent essentially her entire professional career at the Carnegie Institution for Science, Department of Terrestrial Magnetism, is most well known for her work measuring the discrepancy between the observed rotational motions of galaxies and their predicted motion due to the gravitational forces arising from visible matter. Her observations began a lifelong quest, that now includes generations of astronomers, to better understand the invisible universe. As stated by the *New York Times* [10], "Her work helped usher in a Copernican-scale change in cosmic consciousness, namely the realization that what astronomers always saw and thought was the universe is just the visible tip of a lumbering iceberg of mystery." During her long career, she continued to make significant discoveries by carefully examining the galactic motions of gas and stars. Ultimately, her work has been recognized by prizes and awards from numerous scientific societies and organizations including the National Medal of Science of the US National Science Foundation, the Gold Medal of the UK Royal Astronomical Society, the Bruce Gold Medal of the Astronomical Society of the Pacific, and the Watson Medal of the US National Academy of Sciences.

Dedicating this early career prize in Vera Rubin's honor is particularly fitting since she was not only an extraordinary scientist, but also well known for her kindness towards and encouragement of young scientists. Moreover, she has long been a role model for women scientists and those wishing to overcome institutional barriers of discrimination. Her work as a scientist, a mentor, and a barrier breaker will always be greatly appreciated.

In response to news of this award, representatives of her family stated, "Vera Rubin had a long career of supporting young scientists. Her family is pleased that the Division on Dynamical Astronomy (DDA) of the American Astronomical Society is recognizing her contributions by naming this award in her honor."

Nomination Guidelines

The Vera Rubin Early Career Prize recognizes annually an early career dynamicist.

Candidates for this prize must have held a recognized doctorate for not more than 10 years

measured from the date their doctorate was awarded to the nomination due date. However, the nominee may request an extension to this time limitation to allow for career breaks.

Candidates may be of any nationality and need not be members of the DDA. All nominees are expected to abide by the <u>AAS code of ethics</u> [12]. The DDA strongly encourages Rubin prize applications from members of underrepresented groups in dynamical astronomy.

The **Vera Rubin Early Career Prize of the DDA** shall be granted on the basis of the following criteria:

- excellence in scientific research in dynamical astronomy or closely related fields,
- positive impact and influence in the field, scientific or otherwise, and
- promise of continued excellence in research, teaching, and the advancement and support of the field of dynamical astronomy.

For the purposes of these awards and prizes, the field of Dynamical Astronomy contains but is not limited to the sub-fields of celestial mechanics, astrometry, geophysics, cosmology, and star and planet formation as well as Solar System, exoplanet, planetary system, stellar system, galactic, extra-galactic, relativistic, and astrophysical fluid dynamics. The Rubin Early Career Prize committee (listed here [13]) has final authority over the appropriateness of a nomination.

Nomination procedure and requirements:

Nominations for the 2025 prize are due by **February 1, 2026** and should be submitted via the new nomination form (link below). Nominations will remain active for a period of three years, unless the candidate becomes ineligible for consideration.

We are now collecting nominations via the AAS OpenWater awards management system! This system collects information directly from the nominee and letter writers by sending out email requests, so please fill out the nomination form far enough in advance of the deadline for everyone to respond!

A completed nomination package will include:

- Curriculum Vitae including positions held, honors and awards received, teaching experience, mentoring and outreach activities (the CV must include the names of the candidate's PhD. thesis advisor, postdoctoral mentors, all mentored students, and any other close associates, who will all be exempted from reviewing the package to avoid conflicts-of-interest),
- 2. List of publications,
- 3. A two page candidate statement highlighting the most important aspects of the candidate's CV and briefly describing their goals and research plans for the next decade, and
- 4. At least three (up to five) letters of recommendation, at least one of which must be from a member of the DDA (full, emeritus or affiliate members only).

The online nomination system will collect items 1 thorugh 3 directly from the nominee, and letters will be collected directly from the letter writers. The nominator need only supply names and valid email addresses for the nominee and at least three letter writers.

Submit a Nomination for the Rubin Early Career Prize [14]

Further inquiries on the nomination procedure may be addressed to the Secretary of the DDA (DDA.secretary@aas.org [15]).

Note on nominations: We intend that the prize selection committee will not know whether candidates were nominated by others or self-nominated. Accordingly, all three letters of support must say something like "I am writing to support the nomination of [candidate's name]" rather than "I am writing to nominate [candidate's name]." Any letter of support that suggests that the author is

directly "nominating" the candidate rather than "supporting the nomination of" the candidate will be returned for a rewrite.

Selection Committee and process: The award winner will be selected by an Rubin Prize Selection Committee (listed here [13]) with at least 4 members appointed by the DDA leadership. The terms of members will be staggered so that one or two members are changed each year. The Vice Chair of the DDA will serve as an ex-officio member of the selection committee. Each year, the selection committee will remind themselves of potential biases, identify any potential perceived conflicts of interest, determine the selection process in advance of examining that year's nomination packages, and hold at least one teleconference with all members present. The selection committee will select one candidate for the award and submit to the DDA Committee a written citation along with the selected candidate's full nomination package at least 45 days prior to the DDA meeting at which the award will be announced. The DDA Committee reserves the right to approve or decline the choice of the selection committee. In the latter case, the Rubin Prize Selection Committee may decide to put forward a second candidate or choose not to make an award. On occasion, the selection committee may choose to put forth up to two equally deserving candidates to share the award in a given year. In order to ensure that a diverse set of candidates is reviewed for selection, the selection committee will not proceed with its selection process unless at least one female candidate is included in the slate of candidates.

Source URL: https://dda.aas.org/awards/rubin

Links

- [1] http://dda.aas.org/awards/rubin/2025
- [2] http://dda.aas.org/awards/rubin/2024
- [3] http://dda.aas.org/awards/rubin/2023
- [4] http://dda.aas.org/awards/rubin/2022
- [5] http://dda.aas.org/awards/rubin/2021
- [6] https://dda.aas.org/awards/rubin/2020
- [7] https://dda.aas.org/awards/rubin/2019
- [8] https://dda.aas.org/awards/rubin/pastwinners

[9] https://my.aas.org/services/AAS_Member/Fundraising/AAS_Donation_Main.aspx?WebsiteKey=8ee 5113e-871c-4b20-b6ad-174e0cd0ca9b&hkey=edf5f546-0b78-4d99-acbe-6645f705869a&N ew_ContentCollectionOrganizerCommon=3#New_ContentCollectionOrganizerCommon

[10] http://www.nytimes.com/2016/12/27/science/vera-rubin-astronomist-who-made-the-case-for-dar k-matter-dies-at-88.html

[11] https://dda.aas.org/awards/rubin/2017

- [12] https://aas.org/policies/ethics
- [13] https://dda.aas.org/about/leadership
- [14] https://aas.secure-platform.com/a/solicitations/190/home
- [15] mailto:DDA.secretary@aas.org