### 116TH CONGRESS 1ST SESSION

# H. R. 3196

To designate the Large Synoptic Survey Telescope as the "Vera Rubin Survey Telescope".

### IN THE HOUSE OF REPRESENTATIVES

June 11, 2019

Ms. Johnson of Texas (for herself and Miss González-Colón of Puerto Rico) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

## A BILL

To designate the Large Synoptic Survey Telescope as the "Vera Rubin Survey Telescope".

- 1 Be it enacted by the Senate and House of Representa-
- 2 tives of the United States of America in Congress assembled,
- 3 SECTION 1. SHORT TITLE.
- 4 This Act may be cited as the "Vera Rubin Survey
- 5 Telescope Designation Act".
- 6 SEC. 2. FINDINGS.
- 7 Congress finds the following:
- 8 (1) Dr. Vera Rubin was born July 23, 1928, to
- 9 Philip and Rose Applebaum Cooper.

- 1 (2) Dr. Rubin pursued her graduate studies at 2 Cornell University and Georgetown University, earn-3 ing her Ph.D. in Physics in 1954.
  - (3) Dr. Rubin's Ph.D. thesis on galaxy motions provided supporting evidence that galaxies are not uniformly distributed, but exist in clusters.
  - (4) Dr. Rubin continued to study the motions of galaxies, first as research associate and assistant professor at Georgetown University, and then as a member of the staff at the Carnegie Institution of Washington Department of Terrestrial Magnetism.
  - (5) Dr. Rubin faced barriers throughout her career because of her gender.
  - (6) For instance, one of the world's leading astronomy facilities at the time, the Palomar Observatory, did not permit women. Dr. Rubin persisted and was finally allowed to observe at Palomar in 1965, the first woman officially allowed to do so.
  - (7) In 1970, Dr. Rubin published measurements of the Andromeda galaxy showing stars and gas orbiting the galaxy's center too fast to be explained by the amount of mass associated with the light output of the stars.
- 24 (8) In the years that followed, Dr. Rubin and 25 her collaborators used their observations, in conjunc-

- tion with the work by earlier astronomers on the rotation of stars in spiral galaxies, to provide some of the best evidence for the existence of dark matter.
  - (9) This work contributed to a major shift in the conventional view of the universe, from one dominated by ordinary matter such as what produces the light of stars, to one dominated by dark matter.
    - (10) Dr. Rubin was elected to the National Academy of Sciences in 1981, the second woman astronomer to be so honored.
    - (11) Dr. Rubin was awarded the President's National Medal of Science in 1993 "for her pioneering research programs in observational cosmology which demonstrated that much of the matter in the universe is dark, and for significant contributions to the realization that the universe is more complex and more mysterious than had been imagined".
    - (12) Dr. Rubin was an outspoken advocate for the equal treatment and representation of women in science, and she served as a mentor, supporter, and role model to many women astronomers throughout her life.

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- 1 (13) The Large Synoptic Survey Telescope, 2 funded jointly by the National Science Foundation 3 and the Department of Energy, will honor the legacy
- 4 of Dr. Rubin and her colleagues to probe the nature
- 5 of dark matter by mapping and cataloging billions of
- 6 galaxies through space and time.

### 7 SEC. 3. DESIGNATION.

- 8 The Large Synoptic Survey Telescope shall be known
- 9 and designated as the "Vera Rubin Survey Telescope".

#### 10 SEC. 4. REFERENCES.

- 11 Any reference in a law, map, regulation, document,
- 12 paper, or other record of the United States to the facility
- 13 described in section 3 shall be deemed to be a reference
- 14 to the "Vera Rubin Survey Telescope".

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