



AAVSO

ANNUAL  
IMPACT  
REPORT

2021–2022

AAVSO Annual Impact Report, 2021-2022  
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# WHO'S WHO OF AAVSO FISCAL YEAR 2021–2022

## BOARD OFFICERS

President	David Cowall
1st Vice President	Richard Berry
2nd Vice President	Sarah Austrin-Willis
Secretary	Kristine Larsen
Treasurer	Robert Stephens

## BOARD MEMBERS

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John Briggs  
Robert Buchheim  
Dennis Conti  
Joyce Guzik  
Ken Hudson  
Karen Kinemuchi  
Thomas Maccarone  
Antonella Nota

## HEADQUARTERS STAFF

Stella Kafka, PhD	Executive Director (through January 3, 2022)
Kathleen Spier	Acting Executive Director (January 4–September 15)
Brian Kloppenborg, PhD	Executive Director (September 16–present)

## OPERATIONS TEAM

Kathleen Spier	Operations Manager
Lindsay Ward	Communications Manager

## SCIENCE TEAM

Sara Beck	Technical Assistant, Special Projects
Lauren Herrington	Webinar Coordinator, AVSpec Validator
Sebastian Otero	External Consultant, VSX Team, Spanish Translations
Bert Pablo, PhD	Staff Astronomer
Elizabeth Waagen	Senior Technical Assistant, JAAVSO Associate Editor

## ORGANIZATION INFORMATION

The American Association of Variable Star Observers  
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Email: [aavso@aavso.org](mailto:aavso@aavso.org)  
Website: [www.aavso.org](http://www.aavso.org)

The American Association of Variable Star Observers (AAVSO) is a science-focused 501(c)(3) non-profit organization headquartered in Cambridge, MA, U.S.A. Since its founding in 1911, the AAVSO and its members and observers from around the world have collaborated with the professional astronomical community to answer questions about stars and stellar evolution. Our mission is to enable anyone, anywhere, to participate in scientific discovery through variable star astronomy.

The AAVSO accomplishes this mission by establishing relationships between professional and amateur astronomers, delivering educational services, curating the world's largest database of variable star data, and publishing a peer-reviewed journal. In 2022, our engagement with researchers yielded 32 observing campaigns, and our educational programming reached approximately 5,500 individuals.

The majority of our efforts involves curation of four databases, including a photometric database with over 54 million observations, a variable star metadata database containing information on 2.2 million variable stars and counting, a spectroscopic database with some 10,000 spectra, and an exoplanet database showcasing about 1,500 exoplanet transits thus far. In addition, AAVSO-directed pro-am collaborations yielded nearly 300 peer-reviewed publications.

AAVSO has a staff of five individuals that are supported by 200 volunteers. We thank our board members, committee members, observers, and educators. You are each a vital part of our organization's success.

# THE PRESIDENT'S 2022 YEAR IN REVIEW

2022 has been a busy year for the AAVSO. We successfully completed a search for a new Executive Director (ED). Our headquarters (HQ) building has been sold, and we have moved into nearby office space. We celebrated our 111th Anniversary at our November Annual Meeting. None of this would have been possible without the skills and hard work from our staff, board, members, and volunteers.

We were very fortunate to have Kathleen Spirer fill in as Acting ED for the nine-month period until we were able to bring our new ED on board. As a long-term AAVSO employee with extensive prior executive experience, she was well acquainted with the operational aspects of the ED's job and needed little time to get up to speed. In addition to her routine administrative duties, she served on the ED Search Committee, managed our HQ move, planned and executed our Annual Meeting, and so much more. On a personal note, working with her was always a pleasure.

On September 16th, Dr. Brian Kloppenborg was hired as AAVSO's new ED. He holds a Ph.D. in Physics with an astrophysics specialization from the University of Denver. Brian is also well-grounded in mathematics, computer science, business development, grants administration, and accounting. For the past six years, he has been employed by the Georgia Tech Research Institute as a Research Scientist, where he conducted applied research for sponsored and internal projects, and served as a government advisor. He has an extensive list of scientific publications, many as first author.

To remain in our old Cambridge HQ building would have required extensive and expensive renovations. The building was also much larger than our current needs require. Fortunately, it was located on a valuable plot of land in Cambridge, MA that had appreciated substantially in value since our purchase. We were able to sell it at a significant profit, and have now moved into an optimally-sized, functional, and highly professional rental office suite. This move offers us great flexibility for future growth as well.

Our Annual Meeting was held last November in Tucson, AZ, and was a great success by all measures. We have continued the hybrid format that allows members to attend in person or virtually. The scientific presentations were excellent, and everyone had fun at the banquet. Attendance was up substantially, and we received great reviews from our membership. Two new annual traditions were established: the Arlo U. Landolt Lecture and an Argelander Society special event.

This is also a time to say farewell to three notables from our organization: Dr. Arlo Landolt passed away last January. Our former ED, Dr. Stella Kafka, has taken a new position as the ED of the American Meteorological Society. Ms. Sara Beck, a 33-year staff data analyst, has retired. They will all be missed.

I am looking forward to an exciting and productive year ahead. My top priorities are: Development, Science, and Diversity. All three are interrelated. Our historical over-reliance on our endowment is not sustainable in the long run. We are implementing programs that expand our donations from individuals and charitable organizations while developing a more extensive grants program so we can expand our scientific and educational mission. Over time, our membership needs to transform so that it looks like society as a whole. More to follow over the next few months.

Best wishes to all for a good year ahead filled with joy, wisdom, compassion, justice, and peace.

Look Up!



**David Cowall, M.D.**

AAVSO Board of Directors, President

# LETTER FROM THE AAVSO EXECUTIVE DIRECTOR

**Dr. Brian Kloppenborg**

As I write this letter, I just completed my fourth month as Executive Director of the AAVSO. I've spent most of my time learning about the organization, identifying areas for improvement, and strategizing on how we should adapt for the future. In doing so, I've discovered a vibrant community of professional astronomers, amateur astronomers, and citizen scientists, who care deeply about the causes we represent.

Foremost, I would like to thank Kathleen Spierer and the Board for maintaining successful operation of the AAVSO between the departure of Dr. Kafka, and my arrival on September 16, 2022.

Despite the lengthy processes involved with moving to a new building and locating a new Executive Director, the AAVSO made considerable progress towards three of its five strategic goals:

## GOAL: ADVANCING SCIENCE

Data collected by our members were used in 367 papers, 284 of which were peer-reviewed. This level of contribution is a testament to the ability of our organization to impact science positively.

Both our collaboration with Exoplanet Watch, and holding of an exoplanet workshop, have substantially increased the popularity of exoplanet observations with our members. So much so that our exoplanet transit database doubled in size in 2022, and now contains 1,588 exoplanet transits.

AAVSO's variable star metadata database, the Variable Star Index (VSX), was cited by the Gaia collaboration as "crucial, for confirmation or rejection of class or period of known sources, for the difficult task of gathering objects of rare classes, [...] and for discovering new variables."

Lastly, we executed a total of 32 observing campaigns that supported Hubble, Chandra, TESS, and several ground-based observing programs.

## GOAL: DIVERSITY

We completed our Spanish-language webinar series "Las Estrellas a tu Alcance" (The Stars Within Your Reach"). This program reached 964 individuals across North, Central, and South America on Zoom and YouTube. The success of this program resulted in National Science Foundation (NSF) funding for a program entitled "La Ciencia del Cielo para Principiantes" (The Science of the Sky for Beginners"), which began in early 2023.

AAVSO's Ambassador program grew to 16 individuals located in five countries. These individuals presented a multitude of outreach efforts in their local communities.

## GOAL: FOCUSING ON FINANCIAL STABILITY

Our efforts to streamline operations, find external funding, and reduce the draw on the endowment are proving successful. We have reduced our reliance on the endowment for income by 11% from 2020 to 2022. We have continued our goal of reducing the annual endowment draw, which was once 5.25%, and are now well within reach of a 4% draw rate as recommended by our financial advisors. Furthermore, our policy on cash reserves permits us to weather most economic downturns without selling any equities, thereby preserving the endowment for the future.

Looking at our plans, I am quite confident that our next fiscal year will be exciting. We have already reconnected with several of our sister organizations, launched an effort to identify methods to improve the quality of our data, listened to your recommendations on how to improve our membership experience, and proposed a workshop to find our niche in the automated sky survey era. I appreciate those of you who have reached out to volunteer your time to ensure the success of the organization.



Regards,

A handwritten signature in blue ink that reads "Brian Kloppenborg".

**Dr. Brian Kloppenborg**

Executive Director, AAVSO

Phone: 617-354-0484 x107

Email: bkloppenborg@aavso.org

# YOUR DONATIONS AT WORK

## The AAVSO utilizes donor funds in five key ways:

1

### Collaboration with professional researchers

The AAVSO Executive Director and staff spend a considerable amount of time interacting with the professional astronomical community to find projects that are both scientifically interesting and well matched to the capabilities of our Members. As a result of these efforts, AAVSO products, services, or data were used in 280 peer-reviewed publications in 2022. We also issued 38 Alert Notices, 32 Observing Campaigns, and provided hundreds of objects for our members to observe.

2

### Maintenance of databases and archives

The AAVSO maintains two of the world's largest databases on variable stars. The AAVSO International Database (AID) houses over 54 million observations of variable stars submitted by AAVSO observers since 1911. Likewise, our Variable Star Index (VSX) is the world's most comprehensive database of variable star metadata, with information on over 2.2 million variable stars. Professional researchers cited these databases in over 140 peer-reviewed publications.

3

### Support for variable star research

The AAVSO is recognized around the world as a significant contributor to variable star research. In addition to our efforts noted above, AAVSO directly supports variable star research through three restricted funds:

- a. The Janet A. Mattei Fellowship Fund pays for travel and accommodations for a visiting scientist, postdoctoral researcher, or student to perform variable star research.
- b. The Margaret Mayall Assistantship Fund provides financial support for research assistants to work on variable star research.
- c. AAVSONet Fund pays for the refurbishment and maintenance of AAVSO's network of eight robotic, research-grade telescopes that are available for free to AAVSO members.

4

### Outreach and education

- a. In 2022, we presented 32 webinars in Spanish and English. These webinars saw roughly 2,500 attendances on Zoom, and have over 2,800 unique views on YouTube.
- b. Our international youth engagement program, AAVSO Ambassadors, which currently contains students and educators in five countries, conducted 40 outreach activities in 2022.
- c. Our Annual Meeting and science conference enabled 90 in-person attendees and 60 online attendees to learn about the most recent research in variable star astronomy.

5

### Equipment and technology upgrades

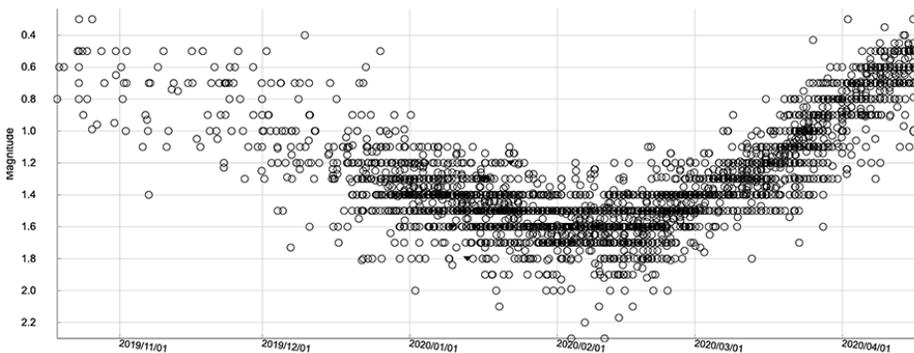
During the last fiscal year, we finished moving all of AAVSO's servers and software from self-hosted instances located within headquarters to the cloud. This effort substantially improved the reliability, maintainability, and operational aspects of our IT infrastructure. We also replaced 80% of the computers within headquarters with newer, more reliable models.

# HIGHLIGHTED CONTRIBUTIONS TO SCIENCE

This past fiscal year, thanks to observers devoting their skills and time, AAVSO contributed a vast amount of quality data to researchers and their discoveries. Of particular note are observations of the following significant stellar events: the dimming of Betelgeuse and the nova fireball phase of YZ Ret. AAVSO's databases themselves also notably contributed to the NASA Jet Propulsion Laboratory (JPL) and the Optical Gravitational Lensing Experiment (OGLE).

**Dimming of Betelgeuse** – in 2019/2020, Betelgeuse experienced an unprecedented dimming event which was captured almost exclusively by AAVSO observers. These data have been analyzed in multiple papers, most recently in Mittag et al., 2022. In conjunction with spectroscopic observations, they were able to determine that the dimming was caused by a significant drop in temperature in the outer layers of the star. Moreover, they were able to show that this phenomenon is not unique, by comparing the decades-long light curve data available in the AAVSO photometric database, which show the significant value that both archival and future monitoring can have.

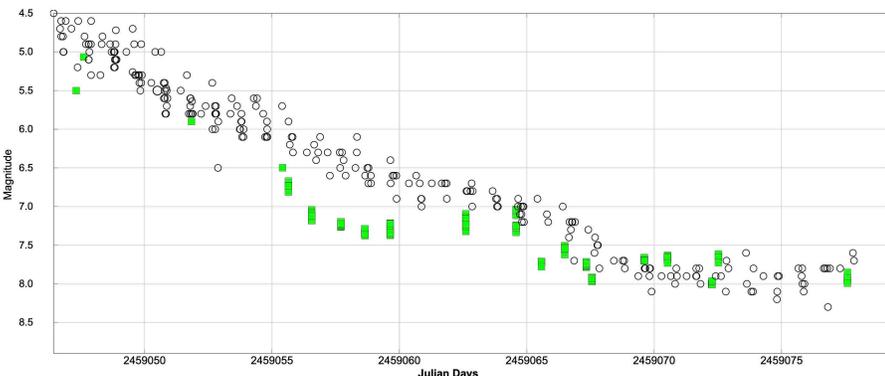
Reference: Mittag et al., 2023, A&A, 669, A9  
<https://ui.adsabs.harvard.edu/abs/2023A%26A...669A...9M/abstract>



Light curve of Betelgeuse's dimming period obtained using AAVSO's Light Curve Generator

**Nova Fireball Phase Detection** – In 2020, one of the brightest nova of the last several decades, YZ Ret, occurred, reaching brightness limits detectable to the naked eye, which were captured by AAVSO observers. X-ray observations of this nova, published in the prestigious Nature journal, by König et al. 2022, show a clear detection of the theoretical fireball phase. The AAVSO data were used to help determine when this phase actually occurred with respect to the photometric brightening, allowing them to confirm the theoretical predictions.

Reference: König et al., 2022, 605, 7909



Light curve of visual and V band observations of Nova in YZ Ret, obtained using AAVSO's Light Curve Generator

# AAVSO BY THE NUMBERS

367  
PUBLICATIONS  
(284 peer-reviewed)

1,275  
MEMBERS

847  
ACTIVE  
OBSERVERS

10  
CHOICE  
COURSES  
serving  
124 participants

32  
WEBINARS  
serving  
2,500 Zoom  
attendances and  
2,800 unique  
YouTube views

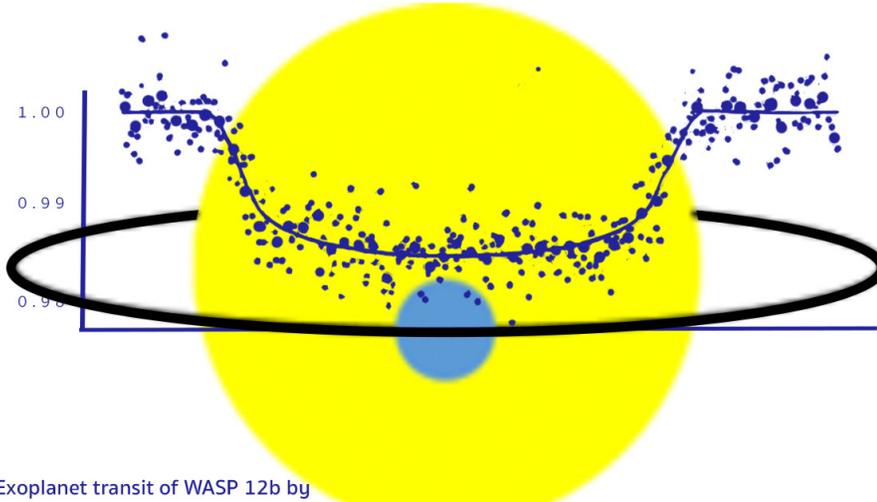
# AAVSO BY THE NUMBERS

**Exoplanet Watch** – The AAVSO has a strong collaboration with NASA JPL's Exoplanet Watch program, which hosts all of its observations in AAVSO's Exoplanet Database (AED). Thus far, Exoplanet Watch has generated observations of 271 unique planets and 1389 total observations. This success has helped move Exoplanet Watch from beta stage to a full deployment as of January, 2023.

Reference:

<https://www.jpl.nasa.gov/news/nasa-wants-you-to-help-study-planets-around-other-stars>

<https://exoplanets.nasa.gov/exoplanet-watch/about-exoplanet-watch/overview/>



Exoplanet transit of WASP 12b by  
AAVSO member and Exoplanet Section Leader Dennis Conti

**The Value of AAVSO's Variable Star Index (VSX):** This AAVSO database is the largest, most comprehensive database of variable star metadata, with over 2.2 million entries. VSX has been used multiple times over the past year to support and archive studies of several high-profile collaborations. Most recently, it has been used in the characterization of nearly 70,000 Miras by the OGLE team. It has also been used as a key facility in the first results paper on RR Lyrae stars by the TESS collaboration.

Reference: Patryk et al., 2022, ApJS, 260, 46 Molnar et al., 2022, ApJS 258, 8

<https://ui.adsabs.harvard.edu/abs/2022ApJS..260...46I/abstract>

<https://ui.adsabs.harvard.edu/abs/2022ApJS..258...8M/abstract>

**Supporting Hubble Space Telescope (HST) Observations** – Over the course of 2021 and 2022, the AAVSO supported an observing campaign run by Dr. Pala and Dr. Kupfer on cataclysmic variables. The goal of this campaign has been to get current measurements of the star prior to HST observations. These observations are crucial to obtain first because if the object is too bright, it will damage HST's instrumentation. As such, without these measurements, HST would be unable to complete its mission.

<https://www.aavso.org/aavso-alert-notice-758>

PHOTOMETRY  
DATABASE  
(AAVSO International  
Database, AID)

**54 M**  
OBSERVATIONS

VARIABLE STAR  
METADATA  
(AAVSO Variable  
Star Index, VSX)

**2.2 M**  
STARS

SPECTROSCOPIC  
DATABASE  
(AAVSO Spectroscopic  
Database, AVSpec)

**10,000**  
SPECTRA

EXOPLANET  
DATABASE  
(AAVSO Exoplanet  
Database, AED)

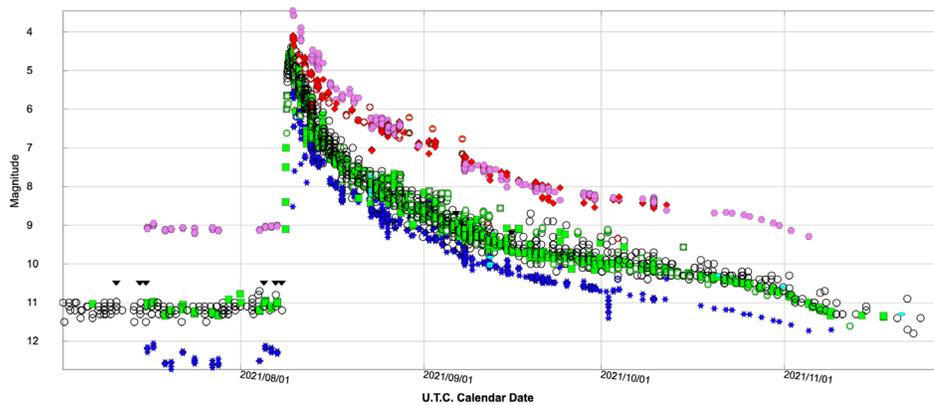
**1,588**  
TRANSITS  
OBSERVED

**32**  
Observing  
Campaigns  
supporting Hubble,  
Chandra, TESS, and  
several ground-based  
observing programs

## MEMBER CONTRIBUTIONS

**Gamma-ray Detection of a Recurrent Nova** – The nova RS Oph is one of the most well-studied recurrent nova, but until 2021, it had been dormant for over 15 years. Its brightening was independently and separately discovered by three AAVSO observers: AAX, GKI, and MUY, and was later observed by dozens of AAVSO observers. The data were used by Cheung et al., 2022 to compare with gamma-ray detections made by the Fermi Gamma-ray Space Telescope. The data were crucial because they were the only photometric data used in this study, and helped confirm theoretical predictions about the gamma-ray production mechanism. This is a great example of AAVSO data providing both wavelength and temporal context to professional research activities.

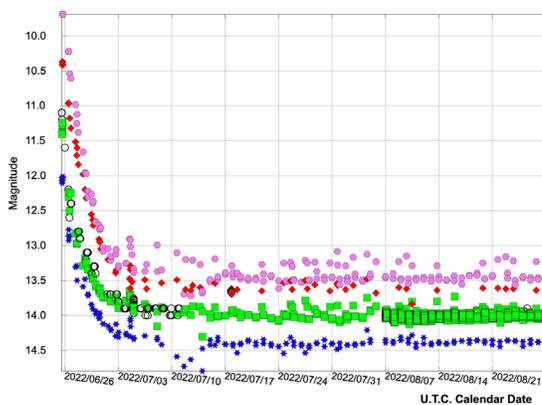
Reference: Cheung et al. 2022, *ApJ*, 935, 44  
<https://ui.adsabs.harvard.edu/abs/2022ApJ...935...44C/abstract>



Light curve of RS Oph obtained using AAVSO's Light Curve Generator

**Potential AAVSO Discovery** – In April 2021, AAVSO observer Andrew Pearce found a new “nova,” FQ Cir, that does not fit the typical definition. It is brighter than it should be, even in quiescence, which has prompted quite a bit of excitement within the community, including an article in the July 2022 edition of the Variable Stars South (VSS) Newsletter. The exact nature remains unknown, and more data is needed to unravel this mystery.

[https://www.variablestarssouth.org/vss-newsletter-july-2022/nl\\_2022-3.pdf](https://www.variablestarssouth.org/vss-newsletter-july-2022/nl_2022-3.pdf)



Light curve of FQ Cir obtained using AAVSO's Light Curve Generator



150 in-person and online attendees from eight countries attended the AAVSO 111th Annual Meeting

Photo credit: Robert Stephens

# AAVSO EVENTS

## AAVSO 111th Annual Meeting

Howling coyotes could be heard, and the rising moon seen over the Santa Catalina Mountains, at AAVSO's 111th Annual Meeting in Tucson, Arizona. In this second hybrid meeting, we celebrated Dr. Arlo Landolt, whose lifetime of work dramatically increased our understanding of the cosmos. The first Arlo U. Landolt Lecture award was presented to Dr. Arne Henden, who discussed special elements of the AAVSO Photometric All-Sky Survey (APASS). Dr. Henden pioneered APASS after conversations with Dr. Landolt about the importance of all-sky calibration. APASS was supported by the National Science Foundation, the Robert Martin Ayers Sciences Fund, and the AAVSO Endowment.



Photo credit: Robert Stephens

Arlo Landolt Lecturer Award presented to Dr. Arne Henden by Executive Director Dr. Brian Kloppenborg



Photo credit: Robert Stephens

Friday night keynote: Sean Walker of Sky & Telescope Magazine

Board member and Exoplanet Observing Section leader Dr. Dennis Conti led a one-day workshop, "Advanced Use of AstrolmageJ for Exoplanet Observing." Of their experience, one participant imparted, "The success of my experience at the workshop is not only the result of Dr. Dennis Conti's preparation and execution, but also from the kind support I received from my fellow students in the group!"

[AAVSO 111th Annual Meeting continued on next page](#)

A total of 150 in-person and online attendees from eight countries gathered together to learn from their peers, chat about their observing and recent stellar activity, and listen to keynote presentations featuring Dr. James Clem (Grove City College), Dr. Liliana Rivera Sandoval (University of Texas Rio Grande Valley), Dr. Misty Bentz (Georgia State University), and Sean Walker (Sky & Telescope Magazine) discussing their research and the importance of data collected by AAVSO observers. Breaks were an opportunity to learn about new products to support their observations. We thank our sponsors DC-3 Dreams, Diffraction Limited, and Chroma Technology for their support.



Photo credit: Lindsay Ward

Keynote Dr. Liliana Rivera Sandoval, University of Texas Rio Grande Valley



Photo credit: Robert Stephens



Photo credit: Lindsay Ward

Annual Meeting sponsors Bob and Stephanie Denny of DC-3 Dreams, at the closing banquet

Discussions at the Meeting also encouraged AAVSO to hold a career panel for the AAVSO Volunteer Ambassadors, which took place a few weeks later. Our ambassadors are students and teachers who create and conduct astronomy education and outreach for their peers and communities. Four ambassadors provided assistance at the event and held interviews to include in future AAVSO videos, and another gave a remote presentation.



Photo credit: Lindsay Ward



Photo credit: Lindsay Ward

## WEBINARS

AAVSO provided three educational webinar series throughout the year. The “Superstar Astronomers” series featured world-renowned astronomers who spoke about their research. Our first webinar series in Spanish, “Las Estrellas a tu Alcance,” mirrored “Superstar Astronomers” and engaged the Spanish-speaking community. We also continued our very popular “How to [ . . . ]” series, which informed our community about observing tools, techniques, and software. These webinar series were sponsored by Boyce-Astro and Chroma Technology.



Photo credit: Lindsay Ward

Annual Meeting sponsors Ann Stanley and Chris Karp from Chroma Technology

### On the Las Estrellas a tu Alcance Webinar Series:

Excelente presentación: clara y perfectamente comprensible. Longitud de la charla ideal. El tema además era superinteresante. Mis felicitaciones por estas actividades tan maravillosas que está organizando la AAVSO.

Translation: Excellent presentation: clear and perfectly understandable. Talk duration was ideal. Topic was also very interesting. Congratulations for these wonderful activities the AAVSO is organizing.

~ F. Pujol (AAVSO observer code PUJ)

# THE HEADQUARTERS TRANSITION

One of the most significant events of 2022 was the relocation of AAVSO Headquarters. We purchased our now-former home of 49 Bay State Road in Cambridge, MA in December of 2006. Over the last 15 years, we hosted several annual meetings, workshops, and guest researchers within its walls.

Before moving, we relocated all of our historical records and artifacts. Most of our records, observing reports, and finding charts were sent to the Harvard University Archives, and will represent the basis of a new AAVSO Collection. Our collection of antique scientific instruments, Mayall sundial collection, and related papers went to the Harvard Collection of Historical Scientific Instruments. John Briggs purchased the books in the McAteer Library and publications from our Serial Library. These items were transported to his Astronomical Lyceum in Magdalena, NM. We kept Professor Annie Jump Cannon's Variable Star Card index, a telescope made by Jaroslov Kruta, and some other small items to make our new HQ feel like home.

Our new headquarters are located within rented space at 185 Alewife Brook Parkway, Suite 410, in Cambridge, MA. It consists of 2,080 square feet divided into five offices, a conference room, a kitchen, and some storage space. While the new office space cannot accommodate all of our prior use cases, it is much better aligned to our current needs.

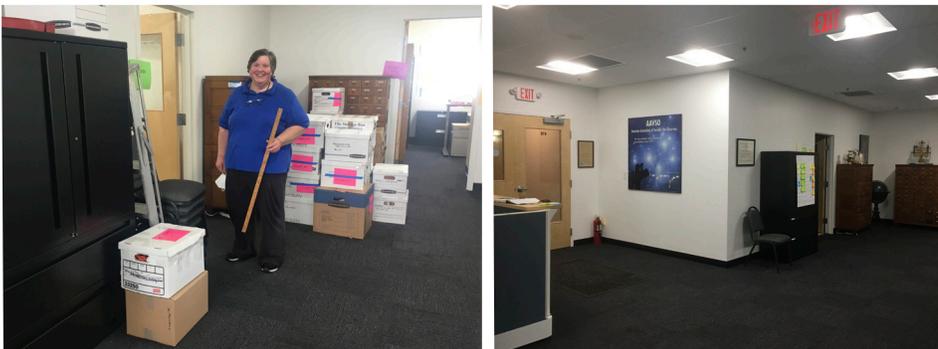


Photo credits: Lindsay Ward

“

## On VSX:

When dealing automatically with so many sources, imperfections are unavoidable — not all classifications are correct and the same is valid for the published periods. So the work of AAVSO is crucial, for confirmation or rejection of class or period of known sources; for the difficult task of gathering objects of rare classes, sometimes source by source; for discovering new variables (we believe that even Gaia DR3 captured only a small fraction); and of course for contributing to the Gaia training sets of variables!

We count on the AAVSO / VSX for the milestone release of Gaia DR4 (when all epoch photometry for all sources will be published, variable or not!)

~ Lorenzo Rimoldini  
Dec. 1, 2022

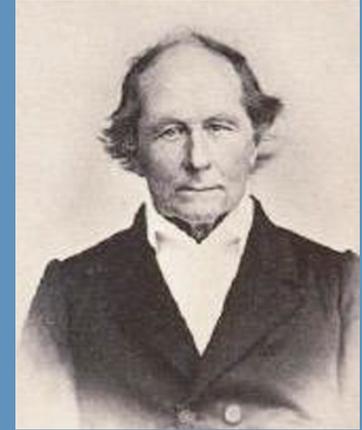
”



Named for Friedrich Argelander, who is considered to be “the father of variable star astronomy,” The Argelander Society offers membership benefits to individuals who have given a certain level of substantial financial support to the AAVSO over many years. Once a benefactor has donated a cumulative total of \$35,000.00 to the AAVSO, they are eligible for a lifetime membership in the organization, free registration to Annual Meetings, invitations to special events, special awards, and tokens of the association’s appreciation.

**The AAVSO gratefully acknowledges the benefactor members of The Argelander Society:**

- |                         |                                 |
|-------------------------|---------------------------------|
| William B. Albrecht     | Arne and Linda Henden           |
| Robert Martin Ayers     | E. Dorrit Hoffleit              |
| Marvin E. Baldwin       | James Molnar                    |
| Richard L. Berry        | Gordon & Betty Moore Foundation |
| John Centala            | Gordon Myers                    |
| David H. Collins Estate | Richard S. Post                 |
| Charles E. Curry        | David J. Sworin                 |
| Margaret Doleman        | Theodore H. N. Wales            |
| Clinton B. Ford         | Gary Walker                     |
| Martha L. Hazen         | Thomas R. Williams              |



**Friedrich Wilhelm August Argelander (1799–1875)**

Photograph courtesy of the Mary Lea Shane Archives of the Lick Observatory, University of California-Santa Cruz

Friedrich Argelander was the first astronomer to begin careful study of variable stars. Argelander is probably best known for the Bonner Durchmusterung, the largest and most comprehensive of the pre-photographic star catalogs. He began mapping the exact positions of the stars in the northern sky in 1852, a monumental task before the use of photographic plates. When finally completed in 1863, it listed the positions of 324,198 stars down to ninth magnitude.

“

~ On a CHOICE course

I look at the information provided by our organization AAVSO [. . .]. It’s so rich in content. I find the hours committed to study very rewarding and I am very grateful.

~ Student Patricia

Instructor Jean-Bruno Desrosiers (AAVSO observer code JBD) replied:

Wow...Thank you! Patricia, you just gave me my pay! That’s why I teach this course on a voluntary basis.

”

# AAVSO BENEFACTORS

## DIRECTOR'S CIRCLE

### \$5,000 and up

Richard Lewis Berry  
The Clarence and Almeda Conrad  
Foundation  
Dr. France A. Cordova  
Jay H. Miller  
Gordon Myers  
Dr. William L. Stein  
David Sworin

## ASSOCIATES

### \$1,000 – \$4999

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Pat Boyce  
Gary Cole  
Dennis Conti  
Dr. David E. Cowall  
Thomas L. Gandet  
Dr. Joyce Ann Guzik  
Dr. Franz-Josef Hambsch  
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Arlo U. Landolt  
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Carl F. Kwadrat  
Kristine M. Larsen  
Dr. Matthew John Mazurek  
Michael Moeller  
Gerard Samolyk  
Ray E. Tomlin  
Mark Wilcoxon

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Gary W. Billings  
Tom Calderwood  
Mark S. de Jong  
Ross Warren Ferguson  
Dr. Mitchell James Giangobbe  
Herbert Gowen  
Victor Grossi  
Kevin R. Hannon  
Albert V. Holm  
Jerry D. Horne  
Raymond B. Howard  
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Karen Jay  
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Seanan Murphy  
Paul M. Norris  
Peter Schenk  
Jim Seargeant  
Gregory Robert Sivakoff  
Jim Sottile  
Ricardo St. Hilaire  
Terrence Trevino  
Elizabeth Otto Waagen  
Robert Weissburg

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Dr. James M. Borgwald  
Dr. Mark Clinton Bottorff  
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John W. Briggs  
Louis B. Cox  
Dr. Richard D. Dietz  
Gregory Wayne Donohue  
Courtney Doyle  
Heinz-Bernd Eggenstein  
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Dennis L. Hoofnagle  
Tim Hunter  
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Dr. Margarita Karovska  
Damien Lemay  
Bob Massey  
Michael Miciukiewicz  
Michael Nuss  
John G. O'Neill  
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Gerald Persha  
John A. Pickett  
Seiichi Sakuma  
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Arne Henden

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Cliff Kotnik

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Ken Menzies

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Dennis Conti - Exoplanet  
Database Tools  
Matthew Craig - VSP  
Peter Higgins - Solar app, Alert  
Notice app  
Cliff Kotnik - VStar, Remark-o-matic,  
AAVSONet  
Dan McCormick - AAVSONet  
Ken Menzies - VPhot, AAVSONet  
Matthew Phillips - VPhot  
Maksym Pyatnytskyy - VStar  
George Silvis - Exoplanet  
Database Tools, VPhot,  
AAVSONet  
Patrick Wils - VSX  
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Database Tools, SNEWS

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Dariusz Kubicki  
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Dr. David Turner  
Dr. John Thorstensen  
Dr. Kristine Larsen  
Gabriel Murawski  
Michael Poxon  
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### Superstar Astronomer Speakers

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Dr. Jessie Christiansen  
Dr. Michelle Thaller  
Dr. Krzysztof Stanek  
Dr. Adam Riess  
Dr. Jocelyn Bell Burnell  
Dr. Emily Levesque  
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### Las Estrellas a tu Alcance Speakers

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Steve Shore

### Young Stellar Objects

Michael Poxon

“

## On AAVSO resources:

A few weeks ago, I pointed out one of the two star constellations that I know to my kids. It sparked a whole learning experience and I wanted to send over my appreciation for your observeres page [www.aavso.org/online-resources](http://www.aavso.org/online-resources). It was a great start for my daughters and I! It led me to tons of information and different guides that were perfect for us, so thank you!!

~ Stacy Martin  
Jan 31, 2022

”

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American Association of Variable Star Observers

# TREASURER'S REPORT

October 1, 2020 to September 30, 2021

Robert Stephens, Treasurer, AAVSO, 185 Alewife Brook Parkway, Suite 410, Cambridge, MA 02138

## STATEMENT OF FINANCIAL POSITION

September 30, 2022

### Assets

Current Assets	
Cash	\$ 582,143
Prepaid expenses	47,479
Investments	<u>14,226,891</u>
Total Current Assets	<u>14,856,513</u>
Property and Equipment, Net of Accumulated Depreciation	34,473
Right of use asset	<u>341,766</u>
Total Assets	\$ <u>15,232,752</u>

### Liabilities and Net Assets

Current Liabilities	
Accounts payable and accrued expenses	\$ 71,453
Prepaid membership dues and meetings	<u>48,845</u>
Total Current Liabilities	<u>120,298</u>
Long Term Liabilities	
Lease liability	<u>344,611</u>

### Net Assets

Without donor restrictions	11,158,593
With donor restrictions	<u>3,609,250</u>
Total Net Assets	<u>14,767,843</u>
<b>Total Liabilities and Net Assets</b>	\$ <u>15,232,752</u>

## STATEMENT OF ACTIVITIES AND CHANGES IN NET ASSETS

For the Year Ended September 30, 2022

### Changes in Net Assets Without Donor Restrictions

#### Unrestricted Revenues, Gains and Other Support

Contributions and grants	\$ 207,685
Membership dues and fees	100,777
Sales of publications and related material	15,321
Meeting fees	31,720
Investment income	147,823
Unrealized gain (loss) on investments	(2,775,617)
Gain (loss) on sale of investments	107,455
Gain (loss) on sale of building	<u>1,986,538</u>
Total Unrestricted Revenues, Gains and Other Support	<u>(178,298)</u>

#### Expenses

Program Services – research, data collection, publication and meetings	711,453
General and administrative	261,947
Fundraising	<u>51,796</u>
Total Expenses	<u>1,025,196</u>
<b>Increase (Decrease) in Unrestricted Net Assets</b>	<u>(1,203,494)</u>

#### Changes in Net Assets With Donor Restrictions

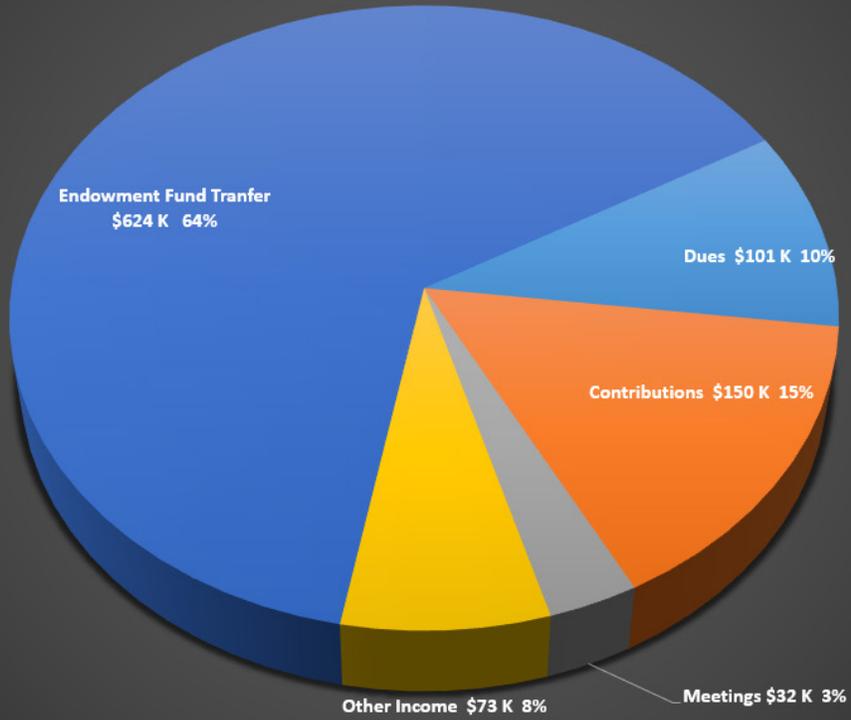
Contributions and grants	25,000
Investment income	3,186
Unrealized gain (loss) on investments	(59,822)
Gain (loss) on sale of investments	2,316
Expenses	<u>(3,655)</u>
Increase in Temporarily Restricted Net Assets	<u>(32,975)</u>

#### Increase (Decrease) in Net Assets

	(1,236,469)
<b>Net Assets – Beginning of Year</b>	<u>16,004,312</u>
<b>Net Assets – End of Year</b>	\$ <u>14,767,843</u>

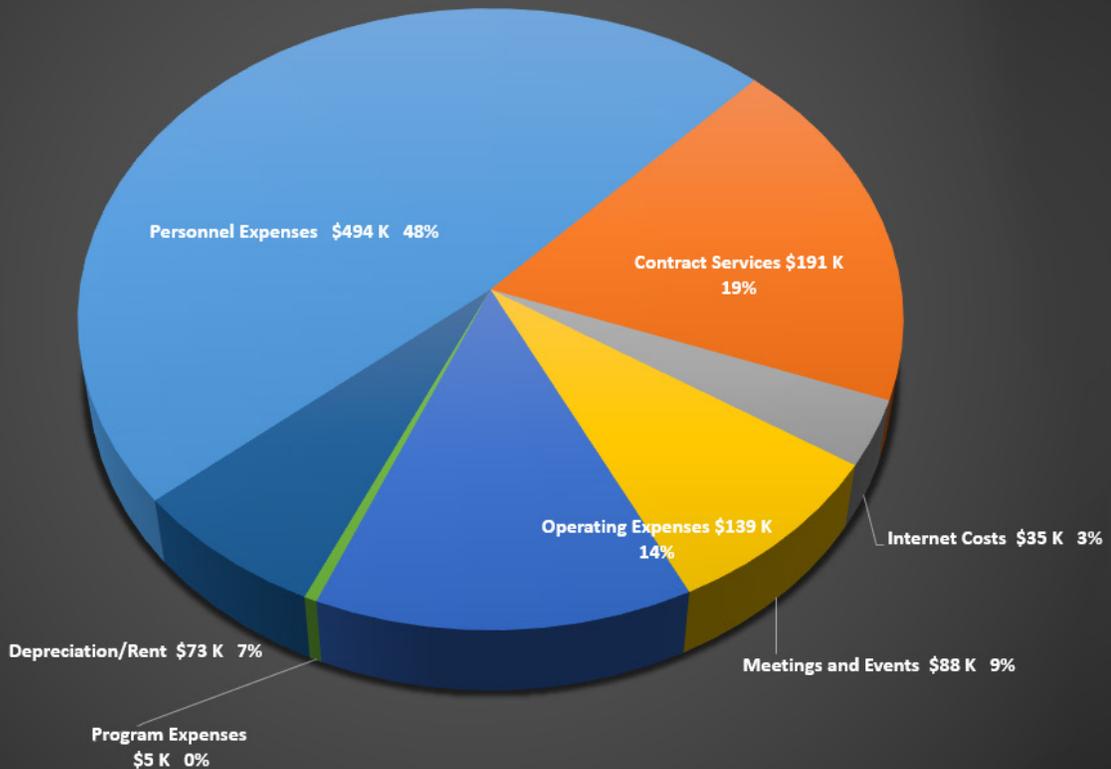
## AAVSO Revenues

Fiscal Year 2021/22



## AAVSO Expenses

Fiscal Year 2021/22





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