



Annual Impact Report | 2022-23

American Association of Variable Star Observers

Annual Impact Report 2022-23

AAVSO Annual Impact Report, 2022-2023

Published March 2024

Cover Photo: PN G75.5+1.7, the Soap Bubble Nebula | Courtesy Steve Hoffman

Copyright © 2024, American Association of Variable Star Observers

ISBN: 978-1-939538-69-7

Who's Who of AAVSO

Board Officers

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

Board Directors

Class of 2023

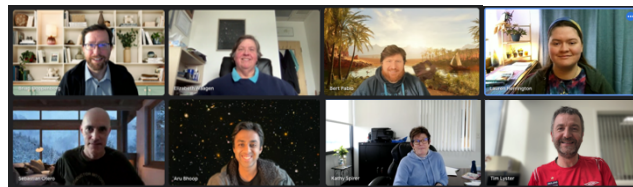
Ken Hudson, 2nd Term
Robert Buchheim, 2nd Term
Antonella Nota, 1st Term

Class of 2024

Martina Arndt, 1st Term
Dennis Conti, 1st Term
Thomas Maccarone, 1st Term

Class of 2025

Peter Bealo, 1st Term
Pat Boyce, 1st Term
Arne Henden, 1st Term



Headquarters Staff

Brian Kloppenborg Ph.D. Executive Director

Operations Team

Kathleen G. Spirer Operations Manager
Lindsay Ward Communications Manager
Timothy A. Lyster Marketing & Communications Coordinator

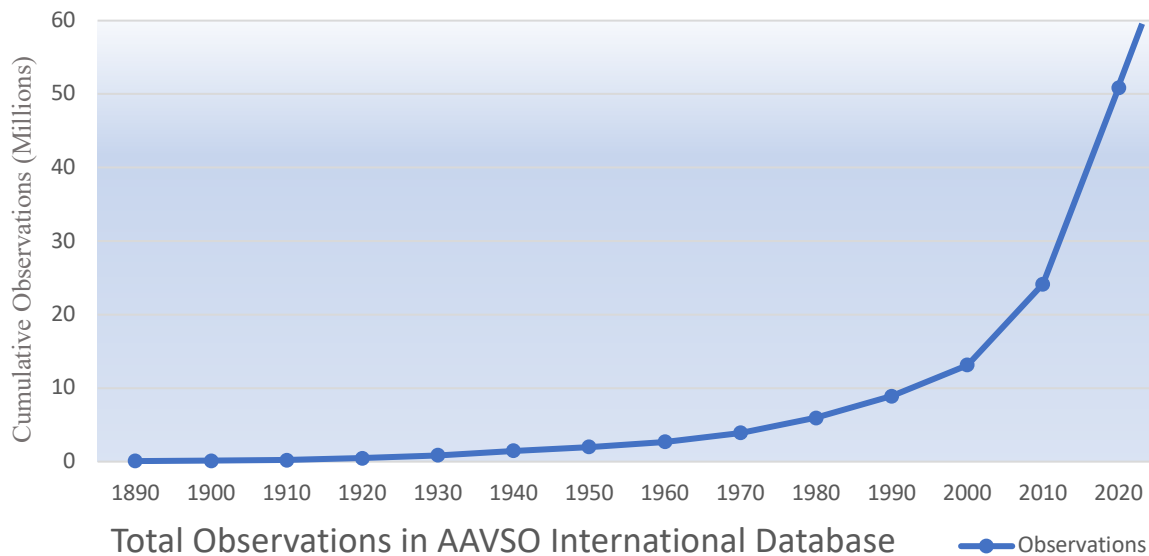
Science Team

Aru Bhoop Software Developer
Lauren Herrington Webinar Coordinator, AVSpec Validator
Sebastián Otero External Consultant, VSX Team
Herbert Pablo Ph.D. Staff Astronomer
Elizabeth O. Waagen Sr. Technical Assistant, JAAVSO Associate Editor

The American Association of Variable Star Observers

185 Alewife Brook Pkwy Ste 410
Cambridge, MA 02138-1104
United States

☎ +1 (617) 354-0484
@ aavso@aavso.org
🌐 www.aavso.org



About the AAVSO

The American Association of Variable Star Observers (AAVSO) is a science-focused 501(c)(3) non-profit organization headquartered in Cambridge, Massachusetts, 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 2023, our engagement with researchers yielded 38 observing campaigns, and our educational programming reached approximately 5,500 individuals.

Most of our efforts involve curation of four databases, including a photometric database with more than 59.6 million observations, a variable star metadata database containing information on 2.3 million variable stars and counting, a spectroscopic database with some 12,300 spectra, and an exoplanet database showcasing about 4,600 exoplanet transits thus far. In addition, AAVSO-directed professional-amateur collaborations yielded 263 peer-reviewed publications.

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



A Pivotal Year

Since its inception in 1911, the AAVSO has been at the forefront of astronomical research. What started as an organization that merely aggregated and published data from amateur astronomers has become one of the most productive research organizations in the world. As you will see in this report, AAVSO's data, products, and services resulted in 263 peer-reviewed publications last year. This is a truly extraordinary accomplishment for an organization of our size.

We began 2023 with a new Executive Director. The job description specified that our hire was to be receptive to new ideas, embrace change, and communicate effectively about AAVSO's future. We found that person in Dr. Brian Kloppenborg. His first message to the membership was that AAVSO is a healthy organization, but the field of astronomy is changing rapidly. He encouraged us to look towards the future, acknowledge that our role in astronomy is likely to change, and imagine what AAVSO could become.

The AAVSO Board of Directors embraced this call to action. We reviewed progress on our last strategic plan and, at the 2023 Annual Meeting, announced actionable goals for 2024. We will establish our place in modern astronomy by collaborating with modern sky surveys and conducting some in-house scientific research. We will improve our technical infrastructure by transitioning to prepackaged software for common tasks. And we will improve the quality of our data by implementing five of the 27 recommendations from the Data Quality Taskforce. The most public-facing aspects of these objectives will be new observing campaigns, a new authentication system, replacement of the forums, improved data submission and retrieval portals, and ultimately a wholesale replacement of our website.

When we look back years from now, I think we will see 2023 as an inflection point for AAVSO. This is the year the AAVSO took stock, looked at where we've been and where we *want* to be, and began building our role in astronomy: as observers, as researchers, as educators, as ordinary amateur astronomers making real contributions to science.

At the core of every plan the Board makes and every activity the staff undertakes you'll find concern for our members. Whether you're an observer responding to an Alert, checking the state of a cataclysmic variable, watching an exoplanet dim a star, or a member making a donation to support our activities, our goal is to make sure our data goes where it will do the most good. As we make plans, our goal is to give you the opportunity to capture starlight and see it turn into knowledge.

A handwritten signature in black ink that reads "Richard Berry". The signature is fluid and cursive.

Richard Berry, President



Reflecting on my inaugural year as Executive Director, I find myself deeply inspired by the passion and dedication within the AAVSO community. As I delved into the organization's rich history and connected with its diverse members, I gained a profound appreciation for the pivotal role AAVSO plays in advancing astrophysics and nurturing scientific curiosity. This, in turn, helped me guide AAVSO towards achieving many of its 2021 Strategic Goals.

Goal 1—Advancing Science

AAVSO embarked on two significant collaborations this year. First, our new partnership with CHARA allowed researchers to request AAVSO observations directly from the CHARA proposal form. The first proposal cycle yielded six requests for data on over 200 objects. Second, our collaboration with the SNEWS team has AAVSO observers monitoring over 190 galactic supernova candidates. Thus far, over 96% of the stars are claimed with 85% of them being monitored using AAVSONet's robotic telescopes!

Right: Brian at ALCON 2024 in Baton Rouge, Louisiana, where he led a workshop on presenting real-time variable star astronomy to the public to an audience of 83 attendees.



Left: Brian presenting at the Colorado Springs Astronomical Society's Rocky Mountain Star Stare near Gardner, Colorado. More than 400 people heard his talk on variable star astronomy and the AAVSO.



Above: Attendees of the AAVSO's workshop on collaborative opportunities between small telescopes and sky surveys at AAS 242.

Goal 2—Building a Diverse Community

Central to our mission is the cultivation of a diverse and inclusive community of astronomers. This year, we organized career panels, delivered talks at various events, and initiated quarterly meetings on Zoom to encourage engagement across our Sections. These efforts aim to inspire and empower people from all walks of life, fostering a community where everyone feels welcomed and valued.

Goal 3—Maintaining and Enhancing Our Technical Infrastructure

From dispatching alert notices to providing data to professionals, almost everything AAVSO does is enabled by technology. Recognizing this fact, we conducted a comprehensive audit of AAVSO's current information technology infrastructure and established a plan to modernize it over the next few years. To ensure our plans are realized, we hired Aru Bhoop as our full-time software developer.

Goal 4—Increasing our Operational Effectiveness

We also examined our own internal processes to make AAVSO operate more efficiently. As a result, we implemented a cost accounting system, established a fundraising committee to personalize donor acknowledgements, and revamped our marketing strategies to focus on generating content rather than placing paid ads.

Goal 5—Focusing on Financial Stability

Through prudent financial management and the proceeds from the sale of our headquarters building, the Board of Directors brought the draw on our endowment down to less than 4.5% for most of the year.

As we look ahead, I am excited by the possibilities that lie before us. Together, we will continue to push the boundaries of scientific exploration, foster a culture of inclusivity and collaboration, and ensure AAVSO remains at the forefront of astronomical discovery.

Brian Kloppenborg, Executive Director

Your Donations at Work

The AAVSO uses donor funds in four key areas:

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 263 peer-reviewed publications in 2023. We also issued 39 Alert Notices, 38 Observing Campaigns, and provided hundreds of objects for our members to observe.

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 59.6 million observations of variable stars submitted by observers since 1891. Likewise, our Variable Star Index (VSX) is the world's most comprehensive database of variable star metadata, with information on over 2.3 million stars.

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 scientific research through four 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. The AAVSONet Fund pays for the refurbishment and maintenance of AAVSO's network of eight robotic, research-grade telescopes, available for free to AAVSO members.
- d. The Gaposchkin Fund supports small research projects related to variable star astronomy.

Outreach and education

- a. We presented 27 webinars in Spanish and English. These webinars saw more than 1,800 attendances on Zoom and have over 7,900 unique views on YouTube.
- b. Our international youth engagement program, AAVSO Ambassadors, continued from 2022, conducting outreach activities around the world.
- c. Our Annual Meeting and science conference enabled 70 in-person attendees and 60 online attendees to learn about the most recent research in variable star astronomy. 

Highlighted Contributions to Science

The AAVSO has worked on several projects in 2023. Here is a small subset of the interesting papers that have come out over the past year featuring AAVSO observers as co-authors.



AAVSO by the numbers

380
Publications
263 Peer-Reviewed



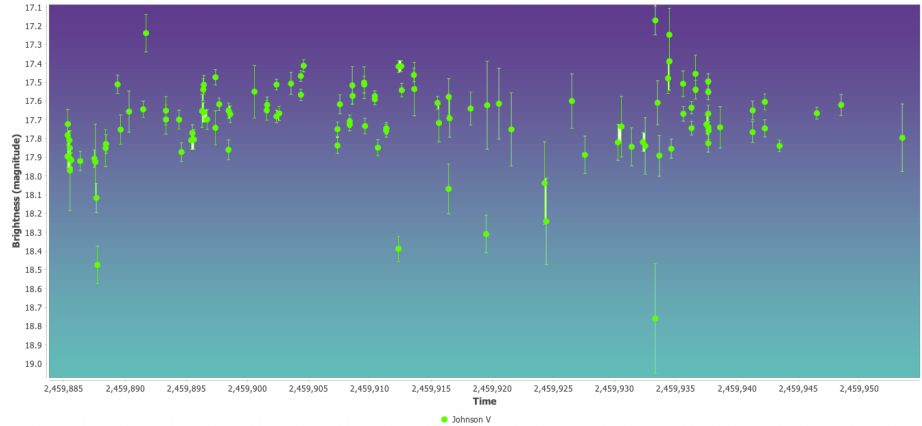
AAVSO by the numbers

1,609
Members



AAVSO by the numbers

847
Active
Observers



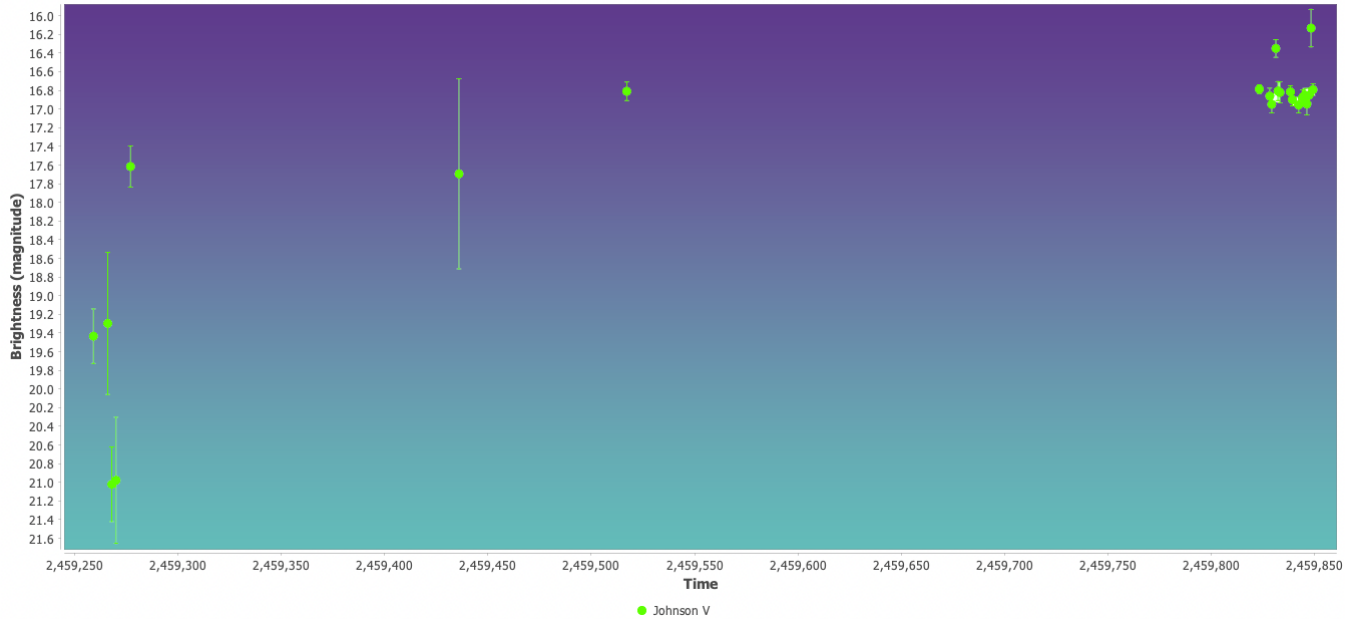
Above: Excellent coverage of V479 And by AAVSO observers showing V479 And not in outburst and therefore safe for HST to observe.

Constraining Cataclysmic Variable Evolution



For years the AAVSO has been working with Dr. Anna Francesca Pala and her colleagues on understanding cataclysmic variables. Using the Hubble Space Telescope (HST) and GAIA their group has been able to more than double the number of white dwarfs in CVs with known masses in a result recently published. This allows them to definitively state that the white dwarf mass is unaffected by the system's orbital period and implies that angular momentum loss must come from a different source. While this analysis does not use AAVSO data directly, its observers and data were crucial for this work. If these systems are in outburst they can damage the detector, so observations are needed within days of the scheduled observation, a service which our observers have been providing for several years on this project and many others.

Reference: Pala, A. F., et al. 2022, MNRAS, 510, 4, 6110-6132
<https://ui.adsabs.harvard.edu/abs/2022MNRAS.510.6110P/abstract>



Above: Data of V406 Vul obtained by AAVSO observers under very difficult conditions and down to an amazing 21st magnitude!

Black Hole X-ray Outburst Discovered in the Optical



In 2021, an alert was issued by the Zwicky Transient Factory on the black hole source XTE J1859+226 (V406 Vul), which had brightened from its quiescent magnitude (an amazingly faint 22.5). A campaign was issued on this star and AAVSO observers helped constrain the outburst activity,

despite magnitudes still fainter than 19th magnitude in some cases. This work, published by Dr. Eric Bellm and colleagues, highlights the ability of optical data to be a strong complement for finding X-ray transients and the role that AAVSO observers play in characterizing these survey-identified objects.

Reference: Bellm, E. C., et al., 2023, ApJ, 956, Issue 1, id.21, 9 pp.
<https://ui.adsabs.harvard.edu/abs/2023ApJ...956...21B/abstract>


AAVSO by the numbers

8 CHOICE Courses

97 Attendees


AAVSO by the numbers

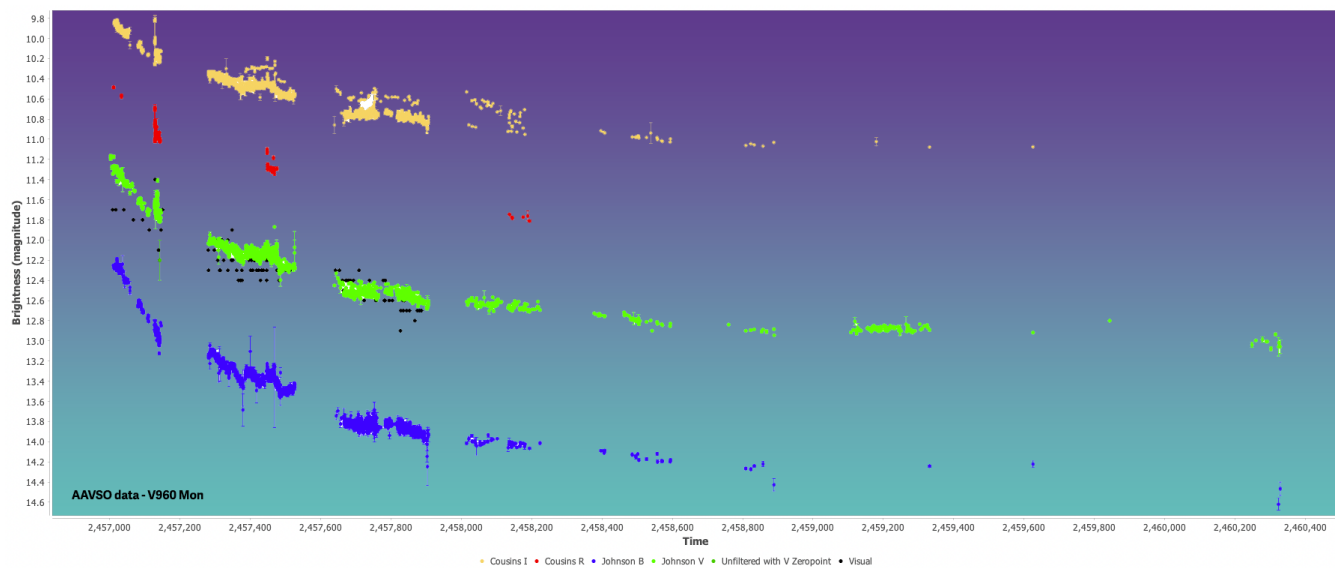
28 Webinars

1,812 on Zoom

30K YouTube Views

“ Thank you so much for sending me the AAVSO Observer Award. Joining AAVSO has been one of my best decisions I made in my life when it comes to doing research work. ”

— Charles Galdies —



Above: Excellent long-term multicolor observations of V960 Mon obtained by AAVSO observers.

Evolution of V960 Mon



This project by Dr. Adolfo Carvalho et al. has been eight years in the making. Using multi-color light curves from the AAVSO as well as spectroscopy, they were able to model the FU Ori variable, V960 Mon, since its last outburst. This work was able to find system parameters at maximum as well as trace out how mass-loss and disk radius evolve through time. This sort of work is only possible with long baseline time-series photometry in which the effort of AAVSO observers was essential.

Reference: Carvalho, A. S., et al., 2023, ApJ, 953, Issue 1, id.86, 14 pp.
<https://ui.adsabs.harvard.edu/abs/2023ApJ...953...86C/abstract>

“Greetings from Malta. Many thanks for the observing certificate. This was an important personal milestone. I appreciate the work being done at the AAVSO!”

— Stephen M. Brincat —

AAVSO by the numbers

60 million
Observations in AAVSO International Database

AAVSO by the numbers

12,300
Spectra
Spectroscopic DBs

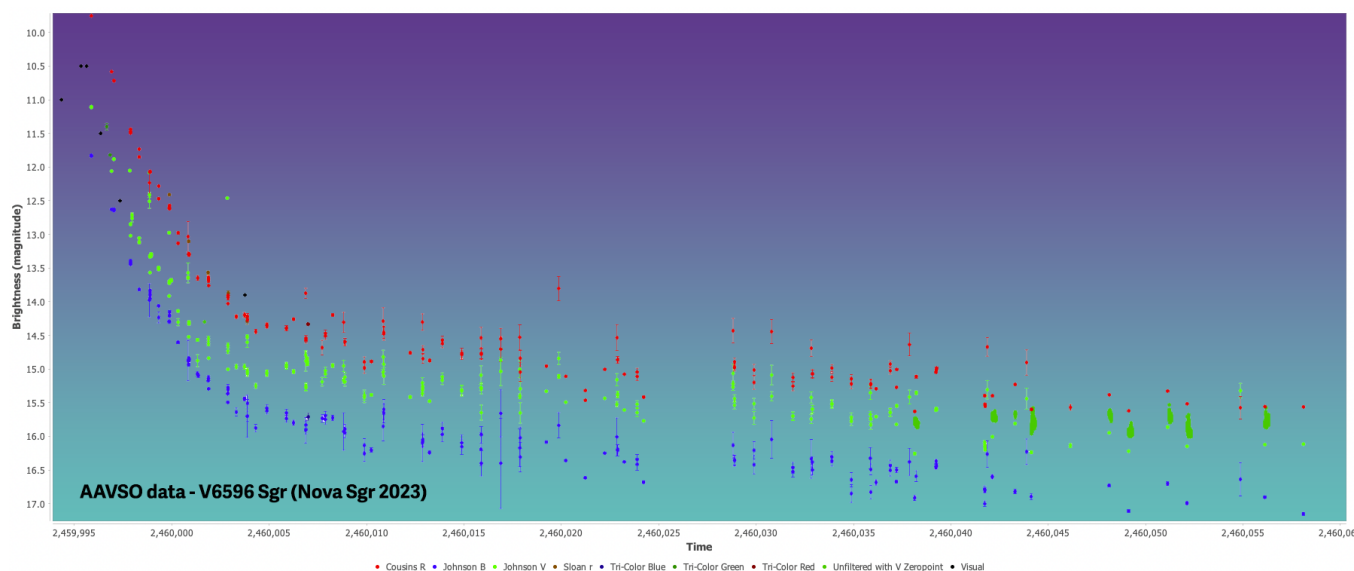
AAVSO by the numbers

4,600
Exoplanet Transits Observed

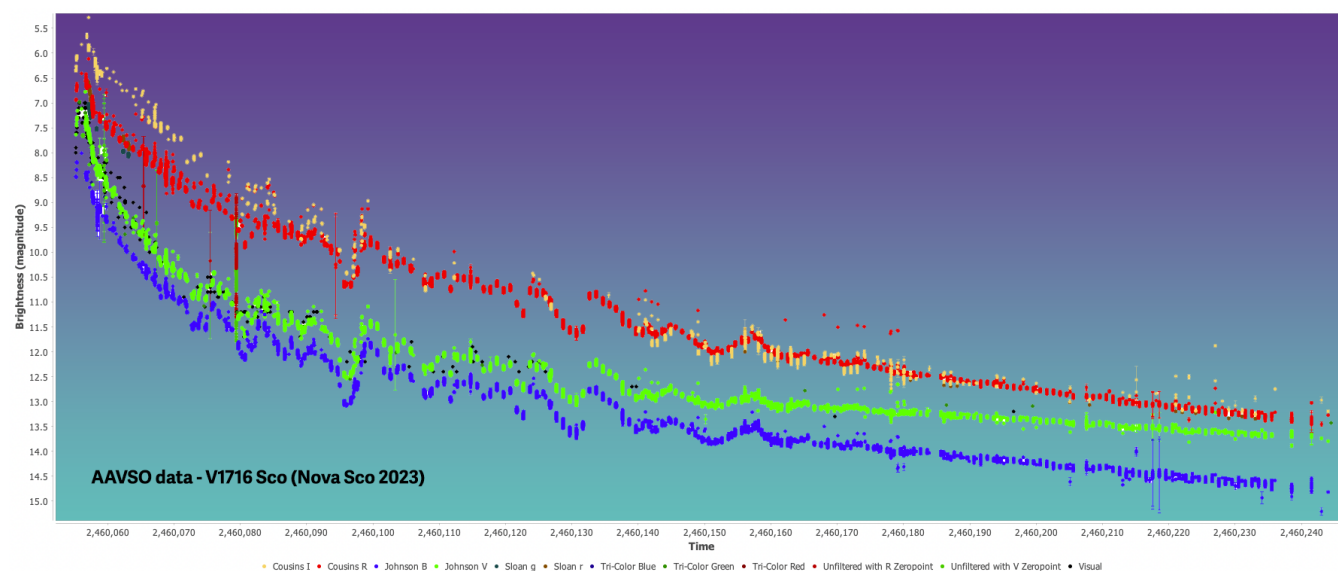
Member Contributions

A Trio of Galactic Novae!

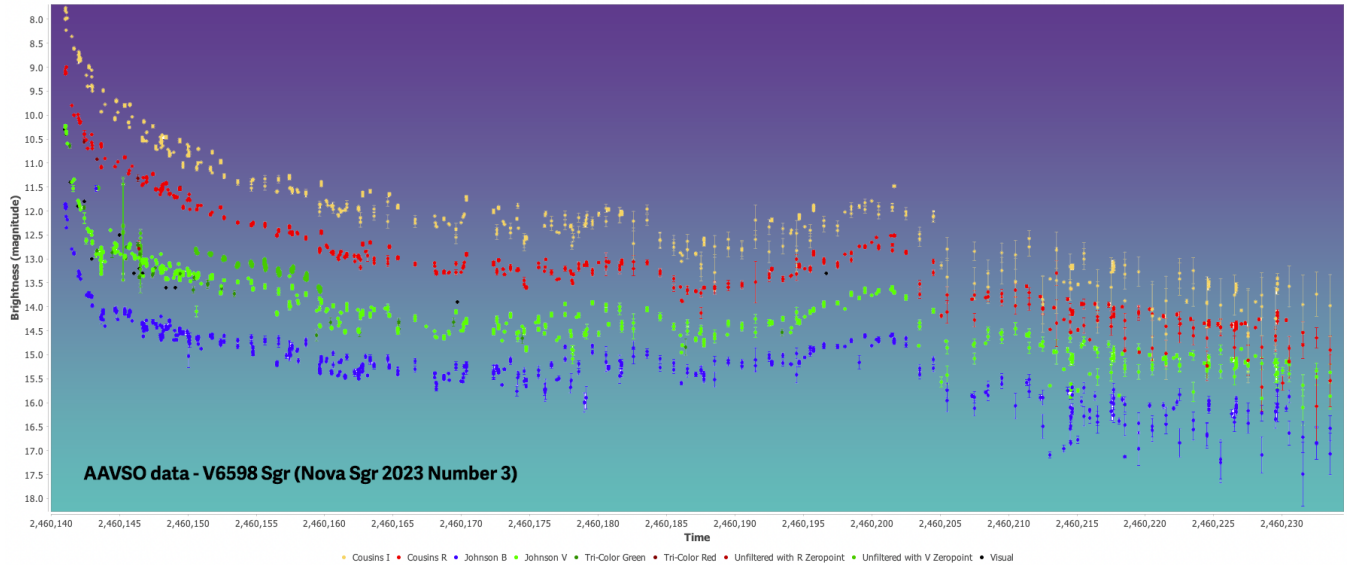
AAVSO observers are often responsible for the discovery of new novae and supernovae every year. This year, however, was unique for observer Andrew Pearce, who discovered not one, but three Galactic novae, two in Sagittarius and one in Scorpius. This result requires some serendipity, but also a lot of dedication and late nights! Andrew discovered Nova Sgr 2023 (V6596 Sgr) in February 2023, Nova Sco 2023 (V1716 Sco) in April, and was an independent discoverer of Nova Sgr 2023 Number 3 (V6598 Sgr) in July.



Above: The light curve of Nova Sgr 2023, the first of Andrew Pearce's discoveries.



Above: Nova Sco 2023's light curve.

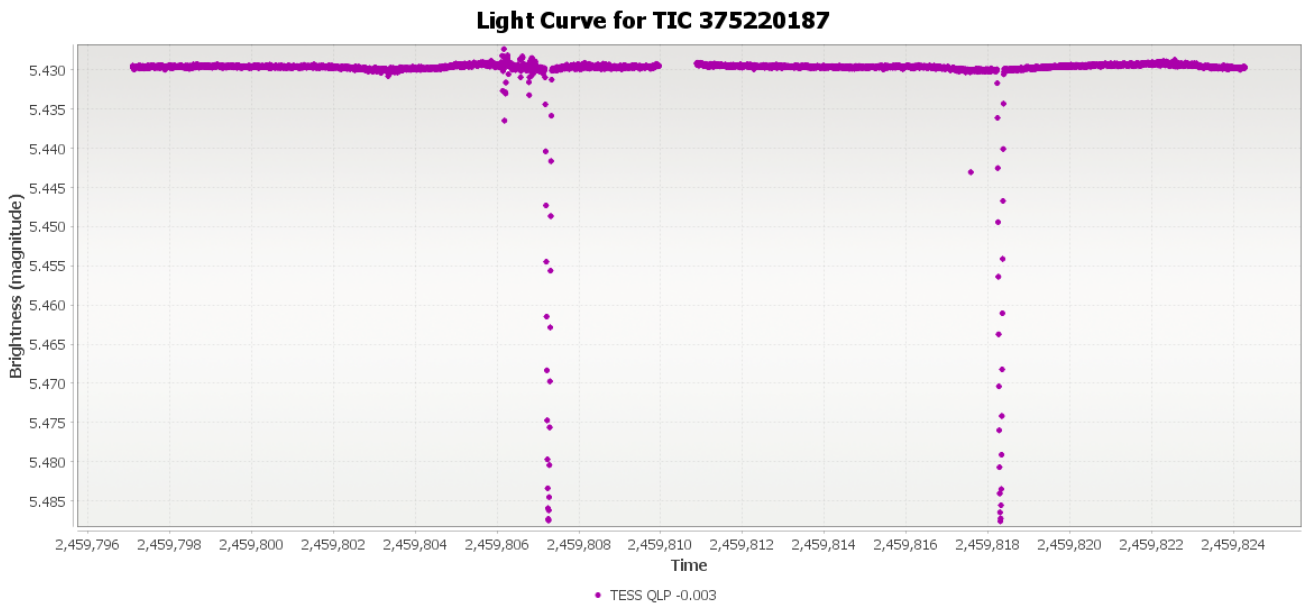


Above: The light curve of Pierce’s third nova discovery.

The Eclipses of iota Delphini

It is rare in 2023 to find variability in a star visible with the naked eye, but that is exactly what Maksym Pyatnytsky did. Using data from the TESS satellite he was able to find eclipses in the star iota Delphini, which is a 5.5 magnitude star. What’s more, these eclipses are 0.06 magnitude deep, meaning they are visible from the ground as well. Maxim’s work is cited in the AAVSO’s International Variable Star Index (VSX) reference for iota Del.

Reference: <https://www.aavso.org/vsx/index.php?view=detail.top&oid=2387318>



Above: The light curve of iota Delphini.



Above: More than 70 in-person and 60 online attendees came to the Row Hotel in Somerville, Massachusetts, for science lectures and poster papers, and to catch up with old and new friends. | Credit: Robert Stephens

AAVSO Events

AAVSO 112th Annual Meeting



The Row Hotel in Somerville, Massachusetts, provided the venue for the 112th AAVSO annual meeting, attracting some 70 in-person registrants (an additional 60 joined the proceedings online). The agenda, anchored by four keynote lectures and comprising nearly two dozen presentations, provided the 130 attendees with two full days of rich programming. During breaks, participants browsed vendor tables and poster papers.





Dr. Matthew Craig (Minnesota State University) led a pre-conference workshop that focused on Python and AstroPy, introducing the power of Python for automating image processing and reducing photometric data. The meeting proper started with an evening reception where old friends reunited, and new faces mingled for the first time.



In the first keynote address, **Dr. Dipankar Maitra** of Wheaton College made the case for greater collaboration between undergraduate institutions and AAVSO. An area of particular interest, which he described as "largely unexplored territory," would be measuring the polarization of bright objects. Following the keynote, attendees stepped out onto the hotel deck for an observing session with two smart telescopes.



Left to right: Dr. Szkody, Dr. Schaefer, and Dr. Espaillet present their keynotes. | Credits: Robert Stephens

For the Landolt Lecture, **Dr. Paula Szkody** (University of Washington) highlighted some of the work and results on cataclysmic variables obtained by collaborations with AAVSO directors and members throughout the past 40 years. Other keynotes included an overview of the CHARA Array by **Dr. Gail Schaefer** (Georgia State University) and planet formation and protoplanetary disks by **Dr. Catherine Espaillet** (Boston University).

“The hybrid meeting format went well—the remote presenters were clear, and it was good to have interactive Q&A with them.”

— Annual Meeting Attendee —

Between presentations, in-person attendees looked over the poster papers, networked, and browsed the sponsor tables.



AAVSO 112th Annual Meeting Sponsors



AAVSO wishes to thank:

The Astropy Project | Chroma Technology
DC-3 Dreams | Diffraction Limited | Unistellar

for their support.



Webinars

AAVSO provided four educational webinar series throughout the year. The popular “How-To” series covered a wide range of topics, including observing variable stars with binoculars; comparing DSLR, CCD, and CMOS cameras for photometry; using AAVSONet to remotely observe variable stars; isochrone fitting using images of star clusters; demonstrating real-time Photometry & Spectroscopy Outreach in Astronomy Club; and using the AAVSO Target Tool.

Mid-year, we hosted three webinars introducing the AAVSO sections: “CVs, Exoplanets, PEP, & YSOs;” “EBs, SPPs, Solar, & Spectroscopy;” and “AAVSONet, HEN, I&E, & LPVs.”

There were two special webinars, “Recurrent Nova T CrB Coming Soon to a Sky Near You” and “AB Aur: An Ambitious Campaign.”

“ Congratulations on a magnificent Zoom talk, with Ricardo Salinas, as part of the AAVSO series in Spanish, Ciencia del Cielo! ”

Patrick Kavanagh



La Ciencia del Cielo para Principiantes

Following last year’s webinar series, “Las Estrellas a tu Alcance,” AAVSO hosted “La Ciencia del Cielo para Principiantes” (The Science of Heaven for Beginners) to further engage Spanish speakers. Funds were provided by the National Science Foundation (grant number NSF-2212883).

CHOICE Courses Attendee Feedback

“ The course was excellent, and much broader on the theory and fundamentals of exoplanet observations than I'd expected (versus just being a 'cookbook' approach to turning the crank using AIJ). [It] filled in a lot of gaps and connected a lot of the dots on my previous experience with EXOTIC and observations in general. Dennis is a delight to learn from. ”

Attendee of the Advanced Use of AstroImageJ
for Exoplanet Observing CHOICE course

“ I felt like I learned a lot from the course and I'm using it now with my research group and encouraging them as AAVSO members to take the course themselves. ”

Attendee of the CCD Photometry CHOICE course

“ The course has 'paid for itself' instantly by affecting the quality of my observations, as I am now involved with my own data in an actual scientific study from which interesting results may come very soon. ”

Attendee of the Photometry Using VPhot CHOICE course

Webinar Attendee Feedback

“ One of the best presentations online or in-person that I have been fortunate enough to attend. ”

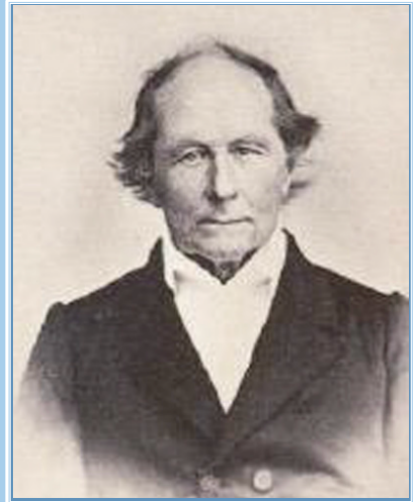
Attendee of How to Observe Variable Stars
with Binoculars

The AAVSO Argelander Society

Named for Friedrich Argelander, considered “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 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.



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



Above: 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 9th magnitude.

AAVSO Benefactors

Director's Circle

\$5,000 and Up

Pat Boyce
Gregory Conrad
Jay H. Miller
Gordon Myers
Richard S. Post
Dr. William L. Stein

Associates

\$1,000–\$4,999

Dr. Sarah Austrin-Willis
Marvin E. Baldwin
Gary W. Billings
John W. Briggs
Robert K. Buchheim
Dr. Tim Bushnell
Dr. Dennis Conti
Dr. David E. Cowall
Dr. Andrea Dupree
Dr. Joyce Ann Guzik
Dr. Arne A. Henden
Dave H. Hinzl
Carl F. Kwadrat
Dr. Arlo U. Landolt
Dr. Kristine M. Larsen
Jim M. Lawler
John L. Menke
Gerard Samolyk
Jim Seargeant
Ricardo St. Hilaire
Robert D. Stephens
Diogo Teixeira
Doug Welch
Mark Wilcoxon

Dr. Thomas R. Williams
Dr. Lee Anne Willson
David Young

Sponsors

\$500–\$999

Bill Goff
Dr. Franz-Josef Hamsch
Rodney H. Howe
Dr. Brian K. Kloppenborg
Dr. Matthew J. Mazurek
Dr. Gregory R. Sivakoff
Mark L. Spearman
James C. Taylor
Paul F. York

Contributors

\$250–\$499

Peter Bealo
Paul Benni
Aaron Berner
Richard L. Berry
Dan L. Boulet
Walter R. Cooney Jr.
Mark S. de Jong
Pierre de Ponthiere
Dr. Richard D. Dietz
Dr. Mitchell J. Giangobbe
Victor Grossi
John A. Hodge
Albert V. Holm
Jerry D. Horne
Ken Hudson
James M. Kay
Damien Lemay

James B. McMath
Michael Moeller
Raymond J. Monnat Jr.
Thomas S. Norton
Steven C. Panish
Dr. John Rachlin
Roland B. Roberts
Dr. Richard Sabo
Seiichi Sakuma
Peter Schenk
Geoffrey Stone
Wayne Thomas
Elizabeth O. Waagen
Chris Webb
Michael Witten

Friends

\$100–\$249

Martina B. Arndt
Dr. Patrick Ashmore
Thomas G. Barnes III
Nicholas J. Brown
James R. Brunkella
Christopher Burns
Tom Calderwood
Richard T. Cline
Dr. Matthew Craig
Athol L. Davis
Rick Diz
Gregory W. Donohue
Michael D. Freeberg
Jim Grubb
Kevin R. Hannon
Michael J. Hartman
Jim Hawn
Michael A. Heald

Dr. Christopher E. Heil
Phillip E. C. Hoppes
Tim Hunter
Mike I. Jones
Dr. Margarita Karovska
Ronald A. King
Dr. Stephen S. Lawrence
Jyrki T. Leppanen
Prof. Thomas J. Maccarone
José T. Martínez de Pablo
Kenneth T. Menzies
Michael Miciukiewicz
Michael Murray
Michael Nuss
Daryl G. Parker
Andrew R. Pearce
Gerald Persha
Philip L. Plante
Richard Roberts
George A. Silvis
Horace A. Smith
Kathleen G. Spirer
Dr. Gerard T. van Belle
Luis A. Velasquez
William M. Wilson
Gary L. Wood

Supporters

\$1-\$99

Patrick Abbott
Dr. Helmar G. Adler
Al Sadeem Astronomy
Observatory
Kevin Alton
Sam Anderegg
Dr. Wayne Bailey
Barry B. Beaman
Scott Bieber
Jack Bono
Dr. Mark C. Bottorff

David W. Brooks
James T. Bryan Jr.
Gary Cole
Dr. Donald F. Collins
Charles H. Cynamon
Jack F. Davis
David G. Decker
James A. DeYoung
Terrence L. Dixon
Heinz-Bernd Eggenstein
Alberto Garcia Sanchez
Keith Geary
Agustín Godino
Dr. Edward F. Guinan
Conrad Halling
James P. Hamilton
Dr. Barbara G. Harris
Liz Hays
Harold I. Heaton
Christopher W. Hesseltine
Dr. Eric G. Hintz
Raymond B. Howard
Dr. Stella Kafka
Kiyoshi Kasai
Donald Korycansky
Albert Lamperti
Stephen Levine
Dr. Michelle B. Lierl
Pamela Lubkans
Brian Maerz
Bryan E. Martin
Pedro Martorell
Christopher W. Mauche
Conan McCann
Edward J. Michaels Jr.
Dr. Siobahn Morgan
Nancy D. Morrison
Manfred Mueller
Seanan Murphy
Bob L. Napier
Paul M. Norris

Dr. John R. Percy
Brad Perry
Dr. Michael J. Person
John A. Pickett
Dr. Read Predmore
Randal A. Putnam
Dr. Terry W. Reeves
Greg J. Reilly
John Ritzel
Mike Rivers
Adam C. Rose
Erwin Schwab
Lawrence J. Shotter
Dr. Paolo Siliprandi
Brian A. Skiff
Francisco C. Soldan
Michael Soukup
Berton L. Stevens Jr.
Dr. Guy Stringfellow
Achim Sucker
Philip H. Sullivan
Prof. Paula Szkody
Dr. John G. Timothy
Ray E. Tomlin
Dr. Charles F. Trefzger
Cyrille M. Vuillemin Kurillosa
Larry A. Wade
Bradley S. Walter
Prof. Frederick M. Walter
Lindsay Ward
William C. Weiss
Robert Weissburg
Michael E. Wiles
Dr. Edward O. Wiley
Jeffrey A. Wilkerson
Glenn L. Williams
Byron Wyman
Daniel W. Zaharevitz

AAVSO Volunteers



Ambassadors

Hani Abdulle
 Teja Begari
 Eric Borowski
 Geovannie Cano
 Christopher Colvin
 Ava Covington
 Kelcey Davis
 Erika Dunning
 Mehdi Esmaili
 Assma Gautem
 Sarvesh Gharat
 Shreya Goel
 Ashley Harris
 Theodor Hill
 Devanshu Jha
 Pradip Karmakar
 Skylar Larsen
 Naunet Leonhardes-Barboza
 Michael Lewis
 Aakaash Narayan

Ayush Nayak
 Gabriel Neagu
 Estefania Olaiz
 Dan Peluso
 Nasir Rizwan
 Sourav Sinha
 Ana Veronica Parra
 Molly Wakeling

AAVSO HQ

John O'Neill
 Michael Saladyga
 George Silvis

AAVSONet

Science Advisor
 Dr. Arne A. Henden

Technical Support

George Silvis
 Gary Walker

Cliff Kotnik
 Dan Zaharevitz

Scheduler

Ken Menzies

Site/Operations Managers

Dr. Helmar G. Adler
 Greg Bolt
 Walter R. Cooney Jr.
 Dr. David E. Cowall
 Zachary Edwards
 Bill Flanagan
 Bill Goff
 John Gross
 Dr. Arne A. Henden
 Jon Holtzman
 Dan McCormick
 Peter Nelson
 Bill Pellerin
 Bart Staels
 Preston Starr
 Bill Stein
 Bill Wiecking

Image Inspectors

Peter Bealo
 Louis B Cox
 Duane Dedrickson
 Jean-Bruno Desrosiers
 Robert Dudley
 Damien Lemay
 Dennis Means
 Ken Menzies

General Support

Nigel Frost
Dick Post

APASS

Tom Bisque
Bob Denny
Doug George
Dr. Arne A. Henden
Jonathan Irwin
Dr. Brian K. Kloppenborg
Stephen Levine
Ulisse Munari
Aaron Sliski
Tom Smith
Bill Stein
Dirk Terrell
Doug Welch

Charts & Sequences

Tom Bretl
Tim Crawford
Chuck Cynamon
Jean-Bruno Desrosiers
Robert Fidrich
Dr. Arne A. Henden
Michael Poxon
George Silvis
Roger Venne
Brad Walter

CHOICE Instructors

Raffaello Braga
Dr. Dennis Conti
Blake Crosby
Aritra Das
Jean-Bruno Desrosiers

Kenneth T. Menzies
Michael Poxon
Edward O. Wiley

Data Validation

Sherrill Shaffer

Mentor Program

Kevin B. Alton
Alexandre Amorim
Juan Aragón
Dr. Wayne Bailey
Constantine Belyakov
David Benn
John A. Blackwell
Steve Boerner
Robert K. Buchheim
Tom Calderwood
John Centala
Mark de Jong
Cledison Marcos da Silva
Aritra Das
Michel Deconinck
Shawn Dvorak
Robert Fidrich
Keith Graham
Kevin Gurney
Gary Hawkins
Richard Huziak
Remco Kemperman
Stelios Kleidis
Dr. Kristine M. Larsen
Damien Lemay
Mike Linnolt
Ken Menzies
Carlos Morales Socorro
John Pickett

James Pierce
Chuck Pullen
Rich Roberts
Sherrill Shaffer
George Silvis
Chris Stephan
Søren Toft
Ray Tomlin
Ed Wiley
William Wilson

Software Dev & Support

David Benn, VStar
Dr. Dennis Conti,
Exoplanet Database Tools
Dr. Matthew Craig, VSP
Cliff Kotnik, VStar,
Remark-o-matic,
AAVSONet
Sam Lee, VStar
Ken Menzies, VPhot,
AAVSONet
Geoff Stone, VPhot
Maksym Pyatnytsky, VStar
George Silvis, Exoplanet
Database Tools, VPhot,
AAVSONet
Patrick Wils, VSX
Dan Zaharevitz, Exoplanet
Database Tools & SNEWS

Translator

Nikola Antonov

Webinars

Las Estrellas a tu Alcance (2022) speakers

Dra. Montserrat Armas
Padilla
Dr. Manuel Pichardo
Marcano
Dra. Olga Inés Pintado

La Ciencia del Cielo para Principiantes ('23) Speakers

Dra. Mayra Lebrón Santos
Dr. Ricardo Salinas
Dra. Olga Inés Pintado
Dr. Ezequiel Treister
Dra. Aida Wofford
Dr. Sebastián Gómez
Dra. Marialis Rosario
Franco
Dra. Yari Collado-Vega

Superstar Astronomer Speakers

Dr. Alex Filippenko

How-To Instructors

Dr. Keaton Bell
Dr. Eva Laplace
Sherrill Shaffer
Mark de Jong
Peter Bealo
Stefan Berg
Bob Denny
Alan Sliski
Dr. Arne A. Henden
Enrique Boeneker
Frank Schorr

Phil Sullivan
Kalée Tock
Dr. Daryl Janzen
Elle Moscinski
Jacob Bryant
Sabine Mazzeo
Tommy Morford
Gary Hawkins
Patrick Kavanagh
Mark Sproul

Special Webinar Presenters

Dr. Brad Schaefer

Section Webinar Speakers

Shawn Dvorak
Dr. Dennis Conti
Tom Calderwood
Mike Poxon
Kevin Alton
Dr. Eric G. Hintz
Dr. Kristine M. Larsen
Lauren Herrington
Dr. Arne A. Henden
Heinz-Bernd Eggenstein
Peter Bealo
Mike Soukup

Variable Star Index Team

James Bedient
Klaus Bernhard
Leo Fernig
Geert Hoogeveen
David Rodríguez
Bill Tschumy
Patrick Wils
Paul York

Board Committees

Executive Committee

[Dr. David E. Cowall](#)
Richard Berry
Dr. Sarah Austrin-Willis
Robert D. Stephens
Dr. Kristine M. Larsen
Dr. Brian K. Kloppenborg

Finance Committee

Robert D. Stephens
[Dr. David E. Cowall](#)

Investment Committee

[Dick Post](#)
Robert D. Stephens
Dr. Sarah Austrin-Willis
Dr. Brian K. Kloppenborg

Diversity Committee

[Thomas J. Maccarone](#)
[Dr. Brian K. Kloppenborg](#)
Eva Noyola
Kelcey Davis

Operating Committees

Marketing Committee

Richard Berry
Dr. Dennis Conti
Kalée Tock
Kundegunda Belle
Peter Bealo
Dr. Brian K. Kloppenborg
Lindsay Ward
Timothy A. Lyster

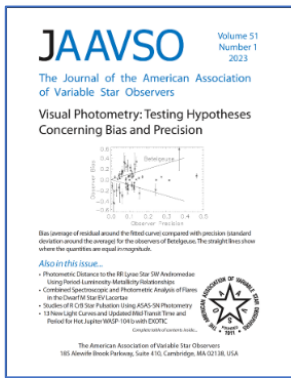
—
[Blue](#) denotes committee chairs

Observing Section Leader Group

Dr. Kristine M. Larsen
Bert Pablo

Development Committee

Dr. Brian K. Kloppenborg
Gordon Myers
Diogo Teixeira
Dr. Sarah Austrin-Willis
Peter Bealo



JAAVSO

Nancy D. Morrison (editor)
Michael Saladyga
(production editor)

Editorial Board

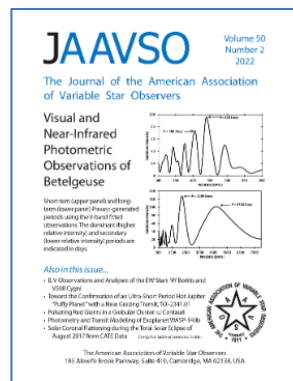
Geoffrey C. Clayton
Kosmas Gazeas
Laszlo L. Kiss
Katrien Kolenberg
Dr. Kristine M. Larsen
Vanessa McBride
Ulisse Munari
Karen Pollard
Nikolaus Vogt

Section Leaders

AAVSONet
Dr. Arne A. Henden
Cliff Kotnik
Ken Menzies
George Silvis
Gary Walker

Cataclysmic Variables

Walter R. Cooney Jr.
Shawn Dvorak



Eclipsing Binaries

Kevin Alton
Gerard Samolyk

Exoplanets

Dr. Dennis Conti

High Energy Network

Dave Hinzel
Heinz-Bernd Eggenstein

Instrumentation & Equipment

Peter Bealo

Long Period Variables

Richard Roberts
Mike Soukup
Dr. John R. Percy

Photoelectric Photometry

Tom Calderwood

Short Period Pulsating Variables

Dr. G. Eric Hintz
Gerard Samolyk
Dr. Horace Smith

Solar

Kim Hay
Rodney H. Howe
Dr. Kristine M. Larsen

Spectroscopy

Lauren Herrington
Steve Shore

Young Stellar Objects

Michael Poxon

Data Quality Task Force

Dr. Brian K. Kloppenborg
Dr. Bert Pablo
Dr. Arne A. Henden
George Silvis
Dr. Matthew Craig
Mark Munkacsy
Ed Wiley
Ken Menzies
Gordon Myers
Tom Calderwood

Treasurer's Reports

October 1, 2022 to September 30, 2023

Robert D. Stephens, Treasurer, AAVSO, 185 Alewife Brook Parkway, Suite 410, Cambridge, MA 02138, U.S.A.

AAVSO Statement of Financial Position

September 30, 2023

Assets

Cash	\$	475,387
Prepaid expenses		14,064
Investments		15,282,474
Operating lease right-of-use assets, net		275,995
Property and equipment, net		27,284
Security deposit		13,000
Total Assets	\$	<u>16,088,204</u>

Liabilities and Net Assets

Liabilities

Accounts payable and accrued expenses	\$	68,574
Prepaid membership dues and meetings		57,091
Operating lease liability		281,645
Total Liabilities		<u>407,310</u>

Net Assets

Without donor restrictions		12,102,546
With donor restrictions		3,578,348
Total Net Assets		<u>15,680,894</u>

Total Liabilities & Net Assets	\$	<u>16,088,204</u>
---	-----------	--------------------------

Statement of Activities and Changes in Net Assets

Year Ending September 30, 2023

Changes in net assets without donor restrictions:

Revenues, support and other gains

Contributions and grants	\$ 174,214
In-kind contributions	9,438
Membership dues and fees	84,549
Meetings, courses and other fees	39,894
Sales of publications and related material	2,556
Dividends and interest, net	397,087
Unrealized (depreciation) appreciation on investments	1,497,732
Realized gains on sale of investments	(171,483)

Total Revenues, support and other gains 2,033,987

Expenses

Program Services	667,282
General and administrative	419,636
Fundraising	58,670

Total Expenses 1,145,588

Increase (Decrease) in Unrestricted Net Assets \$ 898,399

Changes in Net Assets With Donor Restrictions

Contributions and grants	
Dividends and interest, net	5,455
Unrealized (depreciation) appreciation on investments	17,010
Realized gains on sale of investments	1,207
Expenses	(256)

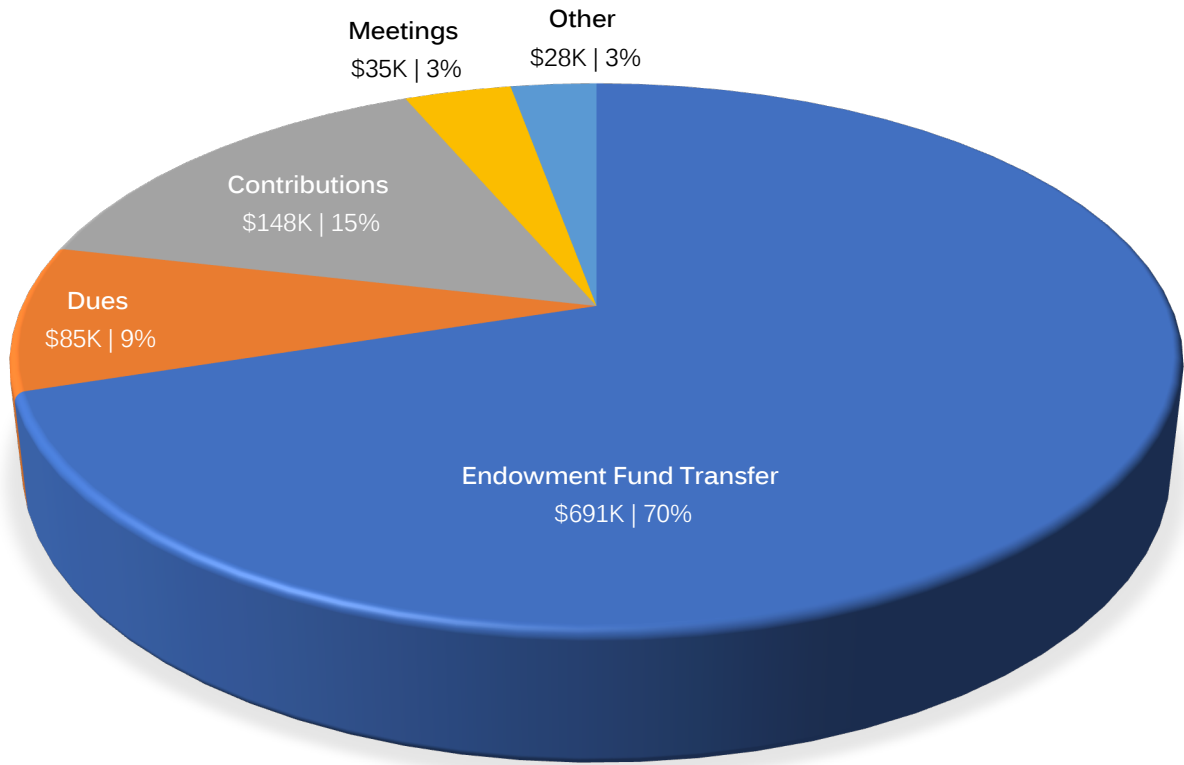
Increase in Temporarily Restricted Net Assets 23,416

Increase (Decrease) in Net Assets 911,815

Net Assets – Beginning of year 14,769,079

Net Assets – End of year \$ 15,680,894

AAVSO Revenues | FY22-23



AAVSO Expenses | FY22-23

