



H·A·D NEWS

*The Newsletter of the Historical Astronomy Division
of the American Astronomical Society*

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Robert W. Smith Wins the 2020 LeRoy E. Doggett Prize!

*Alan Hirshfeld, University of
Massachusetts Dartmouth*

The HAD Prize Committee is pleased to announce that Dr. Robert W. Smith is the recipient of the 2020 LeRoy E. Doggett Prize for Historical Astronomy. The Doggett Prize is awarded biennially to an individual who has significantly influenced the field through a career-long effort. In his decades-spanning career, Robert Smith has worked alongside astronomers and engineers to produce in-depth histories of the Hubble Space Telescope and James Webb Space Telescope, written a series of well-regarded books, and generated groundbreaking articles addressing the history of cosmology in the 19th and 20th centuries. This award recognizes his scholarly achievements and his lengthy record of research mentorship to the next generation of science historians.

Robert Smith received his Ph.D. in the History and Philosophy of Science at the University of Cambridge in 1979, under the guidance of previous Doggett Prize recipient Michael Hoskin. From 1982 to 1998 he held the position of Historian in the Department of Space History at the Smithsonian Institution's National Air and Space Museum (NASM), in Washington D.C., serving as the Department Chair during his last three years there. While at NASM, he was also an Adjunct Professor in the Department of the History of Science, Technology, and Medicine, at The Johns Hopkins University. In 1998, Robert joined the faculty of the Department of History and Classics at the



Robert Smith, winner of the 2020 LeRoy E. Doggett Prize.

University of Alberta, in Edmonton, Canada; he served as Chair from 1998 to 2003.

Robert has been the Lindbergh Chair of Aerospace History at the Smithsonian Institution and a Fellow at the National Humanities Center, as well as a McCalla Professor and Killam Annual Professor at the University of Alberta. He was the History of Science Society's 2012 Sarton Memorial Lecturer at the meeting of the American Association for the Advancement of Science. In 2016, he won the University of Alberta's Faculty of Arts Award for Full Professors for Excellence in Research.

Robert's main scholarly interests are in the history of science and technology from the late eighteenth century to today. Among his broad array of research topics are the discovery of Neptune; the rise of astrophysics; the technology and science of large reflector telescopes; the development of 20th-century cosmology, especially its observational aspects; Big Science; and historical themes in space science, including NASA and especially the Hubble Space Telescope. He is currently acting as on-scene historian to the James Webb Space Telescope, attending project meetings, conducting interviews, and reviewing project documents. He is also co-editor of the forthcoming book, *Neptune: From Grand Discovery to a World Revealed*, which examines the circumstances and varied reactions to the discovery, the controversies that swirled around it, and what these events tell us about the nature of discovery and the history of astronomy. The book also explores later studies of Neptune, including the revelations provided by the Voyager 2 spacecraft.

In addition to numerous scholarly articles and reviews, Robert has written a series of well-regarded books, including *The Hubble Space Telescope: Imaging the Universe* (2004), *Hubble: Imaging Space and Time* (2008), and *The Hubble Cosmos: 25 Years of New Vistas in Space* (2015), all three published by the National Geographic Society and coauthored with David DeVorkin. His 1989 book *The Space Telescope: A Study of NASA, Science, Technology, and Politics* (Cambridge University Press) won the History of Science Society's Watson Davis Prize in 1990 and was listed by the New York Times as one of the notable books of the year. He also co-edited, with R. Launius and J. Logsdon, *The Expanding Universe: Astronomy's 'Great Debate' 1900-1931* (Cambridge University Press, 1982; paperback 2010), as well as *Reconsidering Sputnik: Forty Years Since the*

Soviet Satellite (Harwood Academic Publishers, 2000).

The Historical Astronomy Division is pleased to recognize our colleague Robert W. Smith for his significant scholarship and for his numerous contributions to the history of astronomy. The award will be presented to him at a plenary session of the 235th meeting of the American Astronomical Society, to be held in January in Honolulu, Hawaii. We look forward to recognizing his achievements and to hearing his plenary lecture!

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From the Chair

Alan Hirshfeld, University of
Massachusetts Dartmouth

Down in my basement, filling a set of wide, floor-to-ceiling shelves, is almost the entire run of *Sky & Telescope* magazine. My own subscription began in 1965, when I was a teenage astronomy enthusiast, making the best of the light-polluted night sky a few miles outside Manhattan. Much later, I happened upon a trove of earlier issues of *S&T*, dating back to January 1942, just two months after the merger of its predecessor publications, *The Sky* and *The Telescope*. In one eye-ful along the basement wall is a three-quarters of a century archive of celestial discovery, professional and amateur activities, observational equipment, sky charts, and plenty of astronomical history. The January 1942 issue features a tricentennial commemoration of Galileo's life and work, by I. Bernard Cohen, who five years later would become the first American to receive a Ph.D. in the history of science (from Harvard); a retrospective of observations of the double star 61 Cygni, by Swarthmore's K. Aa. Strand; one

University of Michigan astronomer's wartime takedown of astrology ("Americans know no unlucky stars; all are born under the lucky Stars and Stripes."); reviews of books on Polynesian astronomy and the lives of Nathaniel Bowditch and Edmond Halley; and a large display ad for the Harvey Pocket Observatory, priced at \$15.00.

I enjoy paging through these back issues, altogether a paper time machine illuminating the extraordinary advancement of astronomy over past decades, and more recently spelling out problems whose solutions will likely be chronicled down the line. One gains a vivid sense of where astronomy stood compared to where it stands today. In a fortunate convergence, some months ago the American Astronomical Society acquired the venerable S&T, both assuring its continued publication and advancing its role as a bridge between the professional and amateur astronomy communities.

I hope you can make it our annual HAD meeting and banquet in January 2020 in sunny Honolulu.

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From the Vice Chair

Kevin Krisciunas, Texas A&M University

So far this year HAD has published online the obituaries of Ron Schorn, Giorgio Palumbo, Donald Lynden-Bell, Yoshio Fujita, George Lake, Gustav Tammann, and William Ward. Obituaries ready to be posted include those for Alexei Khokhlov, Peter Abrahams, and Hollis Johnson. And two almost ready are for Matthias Dietrich and Tom Ingerson.

We have about 100 obituaries needing to be written. Only about one-third of those have authors lined up. If you are reading this and have agreed to write one, please do so. If you know a

deceased AAS member or notable astronomer who deserves to have an obituary written, please volunteer.

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From the Secretary-Treasurer

Ken Rumstay, Valdosta State University

Greetings to you all! As noted on page one the 2020 Doggett Prize will be awarded to Robert Smith at the January HAD meeting. I would like to thank those who submitted nominations and the members of the Prize Committee who reviewed them. All those nominated were deserving, and it was an extremely difficult decision. In keeping with tradition, Robert will present the Doggett Prize Lecture at the January meeting of the American Astronomical Society. His talk is titled *From the Invention of Astrophysics to the Space Age: The Transformation of Astronomy 1860-1990*; I for one eagerly look forward to it!

On the next page, Past Chair Patrick Seitzer notes that it's time to submit nominations for the 2021 Donald E. Osterbrock Book Prize. This award was established in Dr. Osterbrock's memory in 2009. I am very pleased to announce that his daughters (Laura Osterbrock and Carol LePage) and son (Bill Osterbrock) will donate all future royalties from their father's books to HAD in support of that award. This generous bequest will help to ensure the continuance of the Osterbrock Prize, and we are very grateful to them!

Alan Hirshfeld noted that the AAS has acquired *Sky & Telescope magazine*, and will continue its publication. I hope that the AAS will also continue to make available the star charts (SC001 and others) previously published by the Sky Publishing Corporation. I've used them in my teaching since 1975, and sorely miss them!

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From the Past Chair

Patrick Seitzer, University of Michigan

One of HAD's major prizes is the Osterbrock Book Prize, awarded every two years to an author or authors whose book significantly advances the history of astronomy. It is the duty of the Past-Chair to oversee the Prize Committee which will select the winner. The last winner was Stella Cottam and Wayne Orchiston for their *Eclipses, Transits, and Comets of the Nineteenth Century: How America's Perception of the Skies Changed*. The next prize will be awarded at the AAS Winter meeting in January 2021. Nominations are due by March 1, 2020.

To be eligible for the prize the book must have been published between 2016 and 2019. Any HAD member can nominate a book by sending a letter of support including the publication date and any reviews of the book to the HAD Secretary/Treasurer by March 1, 2020. The letter of support should demonstrate why this work is important in the overall picture of the history of astronomy. Please keep in mind that the Prize Committee may not have any expertise in the particular area covered by the book you are nominating.

Full details are available at the prize web site: https://had.aas.org/awards_and_prizes/osterbrock_book_prize. This page also lists all previous winners and will give you an idea of the quality of work that has been recognized.

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The January 2020 HAD Meeting

Ken Rumstay, Valdosta State University

The next meeting of the American Astronomical Society will be held 2020 January 4–8 in Honolulu, Hawaii, and our Division will meet concurrently during the first three days of that meeting. The schedule of events is as follows:

Saturday, January 4th

- 3:40 – 4:30 pm HAD I (special session¹)
- 5:30 - 6:30 pm WGRAH meeting
- 7:00 - 8:30 pm AAS reception

Sunday, January 5th

- 10:00 - 11:30 am HAD II (contributed talks)
- 12:45 - 1:45 pm HAD Town Hall
- 2:00 - 3:30 pm HAD III (contributed talks)
- 3:40 - 4:30 pm Doggett Prize Lecture
- 5:30 - 6:30 pm HAD IV (poster session)
- 7:00 - 9:00 pm HAD minibanquet

Monday, January 6th

- 10:00 - 11:30 am HAD V (Special session²)
- 12:45 - 1:45 pm HAD VI (Invited speaker³)

¹ *Centennial of Eddington's Solar-Eclipse Tests of Einstein's General Relativity*

² *IAU-100: Celebrating One Hundred Years of Astronomy*

³ *The Bicentennial of the Royal Astronomical Society*

Please note that the HAD IV session will consist of traditional posters, iPosters, and iPoster-plus sessions (the latter at arranged times).

With regard to the HAD VI session on Monday, we are honored that Dr Josh Nall, Curator of Modern Sciences at the Whipple Museum for History of Science in Cambridge and Chair of the Astronomical Heritage Committee at the Royal Astronomical Society, will be speaking to us in commemoration of the RAS's 200th anniversary. As this visit was arranged late in the planning process the HAD VI session will not appear in the online meeting schedule on the AAS website.

HAD will provide Student Travel Awards to graduate students: Rebecca Charbonneau (History and Philosophy of Science, University of Cambridge) and Andrealuna Pizzetti (Physics and Astronomy, Clemson University). These awards will permit these deserving researchers to present their work at our meeting.

I hope to see you all in Honolulu in January!

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The Hawai'i Convention Center in Honolulu, site of the January 2020 AAS and HAD meetings.



IAU Commission C3: History of Astronomy

Wayne Orchiston

The leadership of the History of Astronomy Commission (Commission C3) of the International Astronomical Union encourages our Historical Astronomy Division and AAS members to join. Commission C3: History of Astronomy, is part of Division C: Education, Outreach and Heritage.

If you are already an IAU member but not yet a member of C3, the process is simple: Just send a request to join C3 to Wayne Orchiston (wayne.orchiston@gmail.com), Chris Sterken

(csterken@vub.ac.be), and Sara Schechner (schechn@fas.harvard.edu) and your request will be processed. According to their list, the following USA IAU astronomers are already members of C3: Mark Adams, John Barentine, Jennifer Bartlett, Ellen Bouton, James Breckinridge, Kai Cai, Brenda Corbin, Steven Dick, Robert Fleck, Owen Gingerich, W. Miller Goss, Theodore Gull, Steven Gullberg, Alevander Gurshtein, Edwin Henneken, Thomas Hockey, Kenneth Kellermann, Edwin Krupp, J. Malville, Harold McAlister, Sarma Modali, John Moore-Weiss, James Moran, Terry Oswalt, Kevin Pang, Jay Pasachoff, Mario Perez, Iain Reid, Sara Schechner, Marion Schmitz, Gregory Shields, Ramin Skibba, Horace Smith, John Steele, Woodruff Sullivan III, Virginia Trimble, Kenneth Turner, Peter Usher, Gerritt Verschuur, Michael Way, James White II, and Ping Zhao.

The International Astronomical Union restructured its commissions in 2015. Members of the former Commission 41 (History of Astronomy) were not automatically transferred to the new C3 equivalent, in which case you must re-apply as described above. As noted above there are still a number of

current USA IAU members in this category. But note also that memberships of IAU commissions are now limited to three (before 2015 one could join three commissions *plus* C41).

If you are NOT a member of the IAU and wish to join C3, first you must apply to become an IAU member. The link to the IAU membership application forms for this year is now available on the web site of the US National Committee for Astronomy (<http://sites.nationalacademies.org/PGA/biso/IAU/index.htm>). As a rule, to be eligible for membership you must have completed a PhD in astronomy, astrophysics, or some allied field three or more years ago, and have a record of publishing research of an international standard. Please fill out the online application and submit it by the deadline of the US National Committee, which is expected to be around December 15, 2019. Note that there are no membership fees for either the IAU or for Commission C3 membership.

If you are not a member of the IAU and are ineligible to join because you do not have a PhD in astronomy or an allied discipline, but you are research-active and publishing international-level history of astronomy papers (including in the fields of archaeoastronomy or ethnoastronomy), then you may apply to become an Associate of Commission C3 or one of its Working Groups. Request an Associate application form from Sara Schechner (schechn@fas.harvard.edu), complete it, and return it to her. Associates have all the rights and privileges of IAU membership except that they cannot vote in elections (or list IAU membership in their CVs).

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On August 25, 2012, members of the former IAU Commission C41 visited the Beijing Ancient Observatory at Beijing during the IAU 28th General Assembly.



AstroGen is Going Online!

Joe Tenn, Sonoma State University

Seven years in the making, the Astronomy Genealogy Project is about to go online. AstroGen, a project of the Historical Astronomy Division, will be on the website of HAD's parent organization, the American Astronomical Society. There is currently a brief introduction at <https://astrogen.aas.org/>.

The AstroGen Team has gathered extensive information about nearly 30,000 astronomy-related doctoral theses (dissertations) and their authors, including nearly complete coverage from 25 countries. Almost all of this has been obtained from online sources, with the remainder coming from visits to university libraries and personal communications.

As I write this in October 2019 Arnold Rots and I are working closely with a manager at the company contracted by the AAS for IT work. We are working on the website, and he promises to have it up by the end of the year. This is essential, since I have submitted an abstract stating that I will demonstrate AstroGen in an iPoster-Plus presentation at the Honolulu meeting in January.

The new iPoster-Plus format will include a ten-minute talk followed by a demonstration on a big screen. Whether or not you can attend the talk, feel free to come by during any poster session to see how AstroGen can help you find the academic ancestors and descendants of many astronomers. With a little more time you can gather all kinds of data about those who have earned doctorates with astronomy-related theses. And look for the website by the beginning of 2020.

It is unlikely that we have even reached the half-way mark in filling AstroGen. We have no idea how many theses have been submitted in Asian countries or some European ones. We need more help. Do you read another language? Are you familiar with academic practices in another

country? These are desirable but not essential to participate. Please, volunteer as much or little time as you wish to help build AstroGen. Contact me at astrogendirector@aaas.org

Joe.tenn@sonoma.edu

Congratulations!

Ken Rumstay, Valdosta State University

It is always pleasant to offer congratulations to our members who have received honors and awards!

First, congratulations to this year's recipients of HAD Student Travel Awards, who will present their research at our meeting in Honolulu. Ms. Andrealuna Pizzetti, a graduate student in Physics and Astronomy at Clemson University, will present *Unveiling Algol's First Recorded Eclipses* at the HAD II session on Sunday morning. Her mentor on this project is Jason Ybarra, who oversees our online *This Month in Astronomical History* column. Then, on Sunday afternoon, Ms. Rebecca Charbonneau (a graduate student in the History and Philosophy of Science at the University of Cambridge) will present *The First US-USSR VLBI Experiment*. We congratulate them both, and look forward to their talks!

At the Stellafane convention on August 3rd in Springfield, Vermont, AAS Press Officer Rick Fienberg was honored with the Walter Scott Houston Award. The award was given by the North East Region of the Astronomical League (NERAL), a confederation of astronomy clubs throughout the United States. It recognizes a lifetime of achievement and support for the amateur astronomy community, and honors the life and work of Walter "Scotty" Houston (1912–1993) who was a longtime Stellafane attendee and was author of the popular Deep-Sky Wonders column in *Sky & Telescope* magazine for nearly 50 years. Rick himself was formerly Editor-in-Chief for *Sky & Telescope*, and is I suspect delighted that the AAS has assumed responsibility for its continued publication. Congratulations, Rick!

Also in August, long-time HAD member Virginia Trimble received the 2019 Andrew Gemant Award from the American Institute of Physics. This annual prize recognizes contributions to the cultural, artistic and humanistic dimension of physics. The 2019 Gemant Award recognizes Virginia's lifelong successes in the physical sciences and "for taking the broader view of how



Rebecca Charbonneau (left) and Andrealuna Pizzetti are this year's recipients of HAD Student Travel Awards.



Alan Rifkin (left) presents the Walter Scott Houston Award to AAS Press Officer Rick Fienberg at the Stellafane convention.



Virginia Trimble, recipient of the 2019 Andrew Gemant Award from the American Institute of Physics, at her desk.



Jay Pasachoff (left) accepts the Astronomical Society of the Pacific's Klumpke-Roberts Award for contributions to the public understanding and appreciation of astronomy.

physics and astronomy is accomplished, creatively engaging physical scientists and the public throughout her lifetime, and commitment to establishing science within the social perspective.”

The nomination committee noted Trimble’s integral and lifelong achievements toward public enlightenment about astronomy, astrophysics and other sciences in her writings. The committee did not pinpoint one single achievement in granting this award, but they chose Trimble for the depth and breadth of her works that, for decades, inspired scientists, piqued the curiosities of people, and permeated the world science psyche.

Virginia, your colleagues at HAD congratulate you on this well-deserved recognition!

The Astronomical Society of the Pacific presents its Klumpke-Roberts Award each year to an individual or individuals who have made outstanding contributions to the public understanding and appreciation of astronomy. This year the award went to Jay Pasachoff for his lifelong work as a popular and scholarly communicator.

Jay Pasachoff’s passion and dedication to the field of astronomy goes beyond his main role as professor and researcher. One nominator summed up how “Jay Pasachoff has devoted his entire career to fathoming the Universe while bringing all of us along with him in the endeavor. For more than a half a century, he has investigated, communicated, and educated – and done so with success, humility, and humor.”

Jay has inspired future writers and astronomers, and has instilled a love of astronomy to laypersons and students all over the world. We thank him for all he has done, and congratulate him upon this latest honor.

Finally, the Adler Planetarium has awarded its 2019 Adler - Mansfield Prize to Stefan Zieme, of Humboldt University in Berlin. This prize is made possible by a gift from Ralph Mansfield, and is awarded in alternate years to the author of an outstanding presentation given at the International Planetarium Society meeting, and at the Notre Dame History of Astronomy Workshop.

I attended the fourteenth Biennial History of Astronomy Workshop at the University of Notre Dame in June, and very much enjoyed Stefan’s presentation ‘Adam Elsheimer and the Renaissance Night Sky’. HAD offers its congratulations to Stefan, and hopes he will consider joining!

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The Biennial History of Astronomy Workshop at Notre Dame

Ken Rumstay, Valdosta State University

The Fourteenth Biennial History of Astronomy Workshop was held June 19th through the 22nd on the campus of the University of Notre Dame. Since 1993 these conferences have provided a forum for scholars of all levels and interests in the history of astronomy. As might be expected, many of the attendees were HAD members. It was especially good to see David DeVorkin there; we missed him at the January HAD meeting in Seattle!

The theme of this year’s conference was “Images in the History of Astronomy,” and the thirty-six oral and three poster presentations explored the broad variety of roles that images, both captured and created, have played in the historical development of astronomy. One speaker came from the Art Institute of Chicago!

The invited guest speaker was Omar Nasim, who is a leading scholar on image-making and visualization in astronomy. He gave a fascinating public lecture (‘The Astronomer’s Chair: A History of Sitting and Its Image’) on Wednesday night and an after-dinner talk (‘Astrophotography: Rethinking the History of Photography’) on Saturday evening. You may recall that Omar was a guest speaker at a special session of our January 2018 meeting at National Harbor.

In all aspects this was an excellent conference! The only disappointment was that a day trip to the Adler Planetarium (a traditional feature of these meetings) had to be cancelled, due to conflicting events in Chicago that would have made travel there difficult. All of the presentation abstracts from this year’s conference are available at the meeting website (<https://www3.nd.edu/~histast/workshops/2019ndx/abstracts.shtml>). This was the first Notre Dame Workshop I’ve attended, but it will certainly not be my last. The next one is scheduled for July 15th through the 18th in 2021. I plan to be there, and I hope you will too.!

I would like to express my gratitude to Matthew Dowd, who not only ran the meeting but also transported most of the attendees from the South Bend airport to the Notre Dame campus and back again (at 4:00 am in my case!). He and his wife hosted us for dinner at their home, and I thank them both for their generous hospitality!

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Participants in the XIV Notre Dame Biennial History of Astronomy Workshop:

Front row (crouched): Lois Rosson, Liz Hamm, Sarah Reynolds, Scott Trigg, Joseph Baxley, Matt Dowd

Second row: Stephan Zieme, Mike Crowe, Marion Dolan, Ken Rumstay, Ken Launie, Louise Devoy, Sara Schechner, Jim Lattis, Adam Apt, Erica Meszaros, Trudy Bell, Laine Corfield, Voula Saridakis, Andrew Oakes, Christophe Wall-Romana, David DeVorkin, Beth Kessler, Marc Rothenberg, Jim Powell, Virginia Trimble

Back row: Chris Graney, Connemara Doran, Cliff Cunningham, Tom Hockey, Horace Smith, Phil Shoemaker, Stella Cottam, Todd Timberlake, Lee Minnerly, Ariel Cohen, Hannah Kaufman, Omar Nasim, Durruty Jesus de Alba Martínez, Yaakov Zik, Dana Freiburger, Jamie Brannon, Salvatore Buonocore, Allan Olley, Samantha Thompson, Irv Berlin, Robert Smith, Pedro Raposo



HAD Session at the DPS/EPSC Meeting in Geneva

Daniel John Kennefick, University of Arkansas

At the joint meeting of the DPS/EPSC in Geneva a session sponsored by HAD on the 1919 Eclipse expeditions was held to commemorate the centenary of these expeditions. The session had an attendance of twenty to thirty people, who seemed to greatly enjoy the presentations.

The session had been organized by Jay Pasachoff who was unfortunately unable to attend for personal reasons. Julia Kennefick chaired the session in his stead and presented slides prepared by Pasachoff which showed beautiful images from the recent eclipse in South America in the summer of 2019. The first speaker was to have been Jeffrey

Crelinsten, author of the book *Einstein's Jury*. He could not attend unfortunately and instead the second speaker, Dan Kennefick, read Crelinsten's talk, which was excellent with many fine images from the period. Kennefick then presented his own talk, based upon his recent book *No Shadow of A Doubt*. The two talks complemented each other nicely since Crelinsten focused on other eclipse expeditions of the period, especially those to the eclipses of 1914, 1918 and 1922, while Kennefick discussed the expeditions of 1919. He paid special attention to those astronomers who have been overlooked in many modern accounts of this famous test of Einstein's theory of General Relativity. The final speaker, Joana Latas presented work by herself and Rosa Doran on using the legacy of the eclipse expeditions as an outreach opportunity to the people of Principe itself. This was a fascinating account of how local context can greatly aid the effort to bring science to the community. A poster associated with this session by Costantino Sigismondi, Luigi Bordoni, and Jay Pasachoff, which discussed using the forthcoming transit of Mercury to check the anomalous advance of Mercury's perihelion by improving measurements of the solar oblateness, drew quite a bit of attention in the poster session.

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Daniel Kennefick and Joana Latas at the DPS/EPSC conference in Geneva. Abstracts may be found on the EPSC website (<https://meetingorganizer.copernicus.org/EPSC-DPS2019/sessionprogramme>) by searching each of the authors' names.



Status of the Yerkes Plate Project

Elizabeth Medina, University of Chicago

A University of Chicago research team in the Department of Astronomy and Astrophysics has partnered with the University of Chicago Library to preserve the astronomical and historical value of the Yerkes Observatory's photographic plates (<http://news.lib.uchicago.edu/blog/2019/09/09/mining-historical-glass-slides-for-astronomical-data/>).

The group, consisting of a half-dozen undergraduate students and their faculty mentor, has been exploring the effectiveness of using office scanners to digitize these plates.

The team has been working with plates taken by Barnard, Ritchey, Hubble and Ross. They're focusing on the Barnard-Calvert Atlas plates taken with the 10-inch telescope, a sampling of Ritchey's plates taken with his 24-inch reflector from 1901 to 1904, the plates Hubble used in his dissertation and took with Ritchey's 24-inch reflector, and the plates in the Ross-Calvert Atlas. One of the benefits of the partnership between the UChicago Library and research team is the group's access to equipment big enough to handle the 14-inch Ross plates.

The team's efforts relate both technical and scientific experiments. They are exploring the various methods of digitization, discovering limitations in astrometric and photometric precision and working on mitigating those problems. The scientific experiment involves measuring the brightness of quasars on the early 24-inch plates which are sufficiently deep (Hubble's plates have long exposure times because of his interest in faint objects). These plates also carry Hubble's annotations and are being scanned as is and analyzed by the team. The simultaneous projects allow adjustments to be made on each experiment. Both of these projects are being presented by the team at the October UChicago Undergraduate Research Symposium.

The UChicago researchers' long-term goal is to find the most practical form of digitization and make files publicly available for researchers and historians of science.

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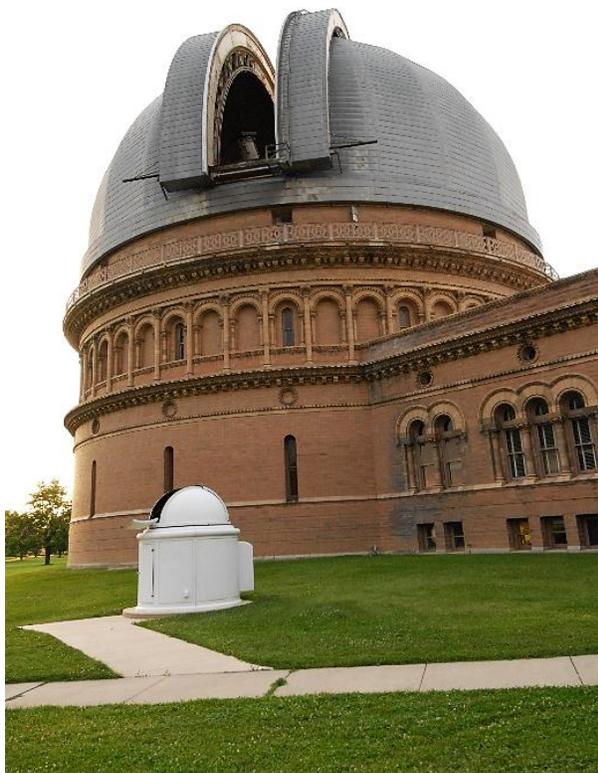
Some of the undergraduate researchers and their faculty mentor in the Yerkes Observatory plate vault. Behind Richard Kron are (from left to right): Jorge Sanchez, Elizabeth Medina, and Michael Martinez.



The Yerkes Future Foundation

Jennifer Lynn Bartlett, Chair, *Working Group on the Preservation of Astronomical Heritage*

In November, the University of Chicago and the Yerkes Future Foundation (YFF) announced their agreement, in principle, to transfer the historic Yerkes Observatory from the University to the YFF. While this agreement is welcome progress, no details are currently available. The full text of the rather brief press release is available at <https://physicalsciences.uchicago.edu/about/yerkes/>.



The dome of the 40-inch refracting telescope at Yerkes Observatory, as it appeared in 2008. This observatory may soon reopen, if all goes well!

The Journal of Astronomical History and Heritage

Ken Rumstay, Valdosta State University

Wayne Orchiston, Chief Editor of *The Journal of Astronomical History and Heritage (JAHH)*, has asked that we use our newsletter to acquaint you with this fine online journal. We are glad to do so!

The Journal of Astronomical History and Heritage was founded by Wayne and by John Perdrix in 1998. It is published by the National Astronomical Research Institute of Thailand (NARIT) in Chiang Mai and releases three issues each year, in April, August, and December. The journal publishes research papers (all of which are refereed), review papers, short communications, IAU reports, and book reviews on aspects of astronomical history and heritage. This includes studies that place the nature and evolution of astronomy in a political, economic, social, historical, and cultural context. As an example of typical content, the contents of the April 2019 issue appear on the next page.

The *JAHH* is published online only and is fully open-access; there are no page or reader charges. All papers are freely available on the journal's website (<https://www.jahh.org/>) and also on the SAO/NASA Astrophysics Data System and on the NARIT website.

HAD members are encouraged to publish in the *JAHH*! The Author Guidelines (which may be found at <https://www.jahh.org/guide-for-authors>) note that all contributions must be in English. Manuscripts in other languages are permitted, provided an English copy of the paper is also provided. The editors also encourage the submission of abstracts in indigenous languages related to a manuscript, if applicable. They cite as an example that, if a submitted manuscript were focused on the Kamilaroi Aboriginal people of Australia, then an abstract and title may also be provided in the Kamilaroi language. This would then be included in the final paper.

In addition to Wayne, many HAD members play an active role in the production of this journal. Cliff Cunningham is one of four Associate Editors, and Steven Dick, Joe Tenn, and Virginia Trimble serve on the Board of Editors. To learn more about the *JAHH*, please contact Wayne Orchiston at jahh.editor@gmail.com.

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Reviews of Three New Books

Jay Pasachoff, Williams College

Stefano Gattei, *On the Life of Galileo: Viviani's Historical Account and Other Early Biographies* (Princeton University Press, 2019, ISBN 978-0691174891, hardcover \$49.95 and e-book).

In a *tour de force* honoring one of the most important astronomers in the history of science and in the popular mind, Stefano Gattei has translated and annotated the earliest biographies of Galileo. The most important part of the book is the reproduction in its original Italian, the translation into English on facing pages, and Gattei's annotations of Vincenzo Viviani's 1654 biography. Viviani went on to be even more important for Galilean historiography, with a description of Galileo's later works published in 1674. Readers of this newsletter will also be familiar with the role in Galilean history of Cardinal Maffeo Barberini and his promotion to becoming Pope Urban VIII, though without sheltering Galileo from prosecution as had been hoped for. Barberini's Latin poem, again

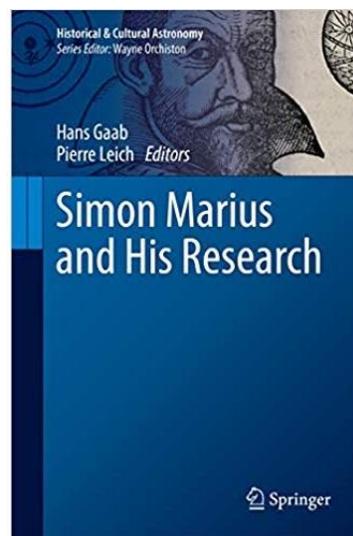
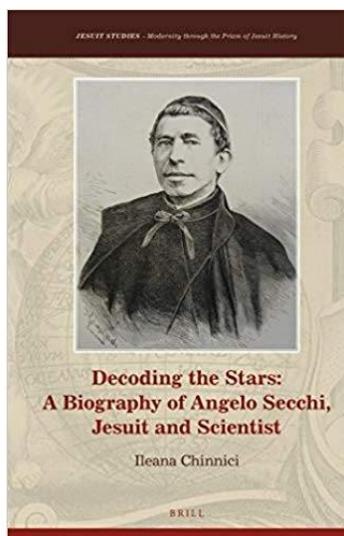
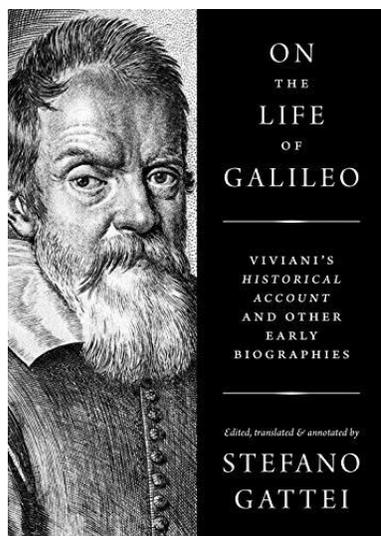
translated on facing pages, also appears here.

All together, Gattei's book collects fourteen accounts relevant to Galileo published between 1633 and 1702. Gattei's 60-page introductory chapter, "Shaping the Myth," will be of interest to this Newsletter's readership, and the whole book should be in every academic library.

Gattei has had a series of associations with Caltech's Division of the Humanities and Social Sciences and with the Huntington Library. His well-produced book, which includes an insert of 24 illustrations, is worthy of the highest academic standard and provides a valuable link to the base of Galileo scholarship.

Decoding the Stars: A Biography of Angelo Secchi, Jesuit and Scientist, by Ileana Chinnici (Brill, 2019, 978-9004387294).

I had long known of Father Angelo Secchi, long-term director of the Vatican Observatory in the 19th century, especially through his illustrated books about the Sun and the stars, of which I had French and German versions. When I was invited to give the opening remarks for the session on his solar work for his 200th-birthday symposium in Rome in September 2018, I learned more about his pioneering work, and how he had learned about solar astronomy when he was in forced exile at Georgetown College. I realized that one of his books had even been referenced on page 1 of chapter 1 of my Ph.D. thesis. The other main astronomical session, introduced by New Zealand astronomer John Hearnshaw, discussed his pioneering set of spectral types.



Three recently-published books of great historical significance

Now the Sicilian astronomer Ileana Chinnici's biography of Secchi has appeared in English translation, and a fascinating read it is. She describes in interesting terms how widespread Secchi's influence is for the birth of astrophysics, though also how Lockyer in England was antagonistic and kept Secchi from getting the credit he deserves in the English-speaking world. As Guy Consolmagno, current director of the Vatican Observatory, writes in a foreword, "It is a shame that Secchi is not better known. His life and personality was as rich and colorful as Galileo Galilei's. In fact, this comparison may be unfair—to Secchi." He is even a current NASA acronym: the Sun-Earth Connection Coronal and Heliospheric Investigation (SECCHI) package on each of the pair of STEREO spacecraft in solar orbit.

Well-illustrated in black-and-white and in color (with Secchi's spectral classification of 1869 from his *Le Soleil*, 1970, in color, as is a plate of solar prominences from 1871, for example), this very readable and well-translated book deserves a place in every library and on the reading lists of many solar and stellar astronomers

Simon Marius and His Research, a conference proceedings, Hans Gaab and Pierre Leich, editors., Historical and Cultural Astronomy, series editor: Wayne Orchiston (Springer 2019, ISBN 978-3-319-92620-9); a translation of Simon Marius und seine orschung (AkademischeVerlagsanstalt, Leipzig, 2016, ISBN 978-3-944913-49-0)

I first learned about Simon Marius through his book *Mundus Iovialis* (1614), *The World of Jupiter*, since its frontispiece has arguably the first illustration of a telescope, and also arguably the first illustration of the orbits of the main moons of Jupiter (the so-called Galilean satellites, though the names Io, Europa, Ganymede, and Callisto were actually conferred by Marius). But it was only as the 400th anniversary of his publication approached that I learned that he had actually independently discovered those four satellites, though one day after Galileo! He certainly deserves to be better known.

A fitting testimony to his work was a conference organized in Nuremberg, near where he worked in Gunzenhausen, in 2014, published in German in 2016 and now translated and published in English in 2018, with the added substantial bonus that an updated translation of his work supervised by the scholar Al Van Helden appears as the first 53 pages.

The frontispiece, from my own copy, is the frontispiece of the English version of the book.

One way that Marius got into trouble was caused by his location in northern Europe, which had not adopted the Gregorian calendar under which Galileo was operating. So Galileo took strong opposition to Marius's claim of discovering the moons in 1609, though when the skipped days were added to Marius's date, the satellite discovery came out one day after Galileo's 1610 notes. In *Il Saggiatore (The Assayer)*, in 1623, Galileo devoted space to trashing Marius, which contributed to Marius's reputation being ignored or diminished, basically until a "jury" in the Netherlands in the early 20th century reevaluated the matter and credited Marius with original discoveries. Van Helden and Huib Zuidervart provide a chapter on "A Word of Caution About the "Rehabilitation" of Simon Marius, pointing out still-unresolved questions of just who did what when in the 17th century.

I have published more about Marius as Pasachoff J. M., 2015, "Simon Marius's Mundus Iovialis: 400th Anniversary in Galileo's Shadow," *Journal for the History of Astronomy*, May, 46(2), 218-234.

DOI: 10.1177/0021828615585493,

<http://journals.sagepub.com/doi/abs/10.1177/0021828615585493>.

The new translated volume follows the traditional Prickard translation of Marius's work as updated by Van Helden with nineteen modern contributions. The web portal (<http://www.simon-marius.net>) discussed in Chapter 17 by Norman Anja Schmidt and Leich, provides much information, including links to existing copies of *Mundus Iovialis* in libraries and elsewhere. We even learn, in Chapter 18, about asteroid 7984 Marius, named at the approximate time of the quadricentennial event.

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More Book News

Ken Rumstay, Valdosta State University

I'd like to thank Jay for providing reviews of three highly significant books which have recently been published. Bringing new works to the attention of our readers is an important function of *HAD News*; if you would like to review a book dealing with the history of astronomy, please contact me!

I have recently received, and thoroughly enjoyed, two new books authored by prominent HAD members.

Cosmos: The Art and Science of the Universe by Roberta J.M. Olson and Jay M. Pasachoff (Reaktion Books, 2019, ISBN 978-1789140545) is a stunning exploration of the myriad ways in which the heavens have inspired artists, poets, authors, and sculptors through the ages. Lavishly illustrated with paintings, drawings, photographs, this book showcases the aesthetic wonders of the universe. In his review, Astronomer Royal Martin Rees stated “*In this eloquent and beautifully illustrated book, Olson and Pasachoff recount how the cosmos has inspired artists through the ages to create images that have become embedded in our culture.*”

Time of Our Lives: Sundials of the Adler Planetarium by Sara Schechner (Adler Planetarium, 2019, ISBN 978-0578497105) is the third book in a series of publications exploring the collections of the Adler Planetarium (the first two having catalogued the astrolabes). Sara Schechner, winner of our 2018 Doggett Prize, approaches these timekeeping devices not just as antiquarian curiosities, but rather as historical and cultural artifacts which testify to changes in society, knowledge, aesthetics, and humanity’s relationship with time.

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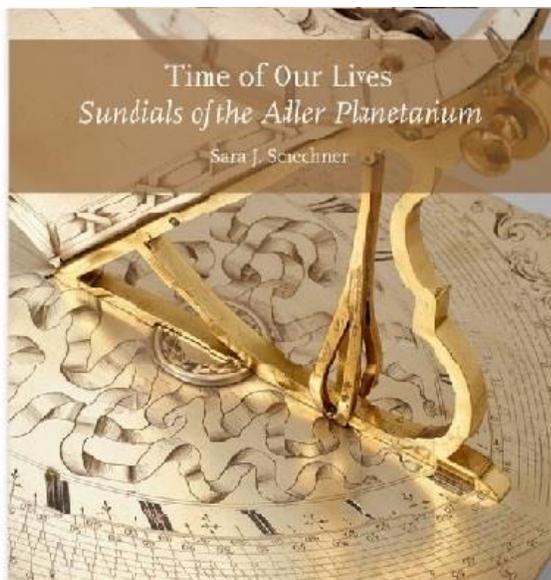
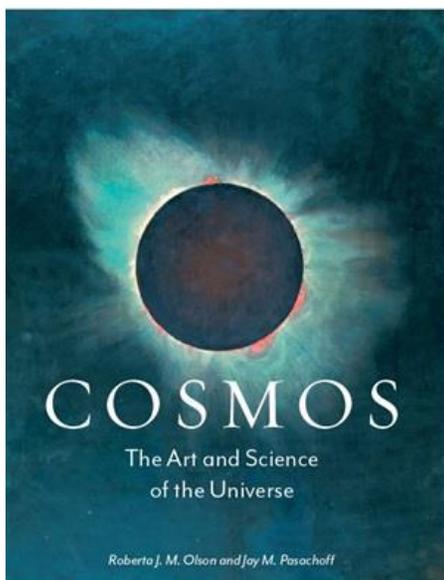
An Important Announcement!

Gregory Good, AIP Center for History of Physics

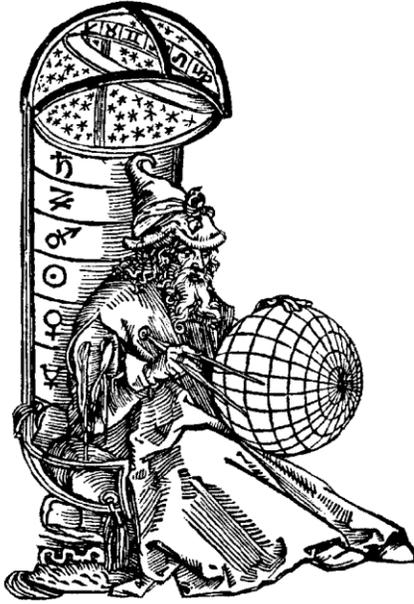
The Center for History of Physics at the American Institute of Physics is pleased to announce that several new positions are being added in our oral history unit. A new Oral Historian, Dr. David Zierler, has started planning to increase AIP’s capacity for producing oral histories. In 2020 he will be joined by an Oral History Coordinator and an Associate Oral Historian. During the next year Dr. Zierler will be reaching out to the AIP Member Societies to help expand their own oral history activities.

For more information, please contact David Zierler at dzierler@aip.org.

ggood@aip.org



Two new books by HAD members.



Historical Astronomy Division of the American Astronomical Society

HAD News #94, November 2019, edited by Ken Rumstay. Please send contributions for the next issue, comments, etc. to had.secretary@aaas.org.

A complete version of this newsletter, with color photographs and active links, may be found at <https://had.aas.org/sites/had.aas.org/files/HADN94.pdf>

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