

H·A·D NEWS

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

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The January 2019 HAD Meeting

Ken Rumstay, Valdosta State University

The Historical Astronomy Division met (in conjunction with the 233rd meeting of the AAS) on January 6th through the 8th at the Washington State Convention Center in Seattle. Twenty-two oral presentations were made in four sessions, and six HAD posters (three of them in the new iPoster format!) were available for viewing on Monday.

The meeting began on Sunday afternoon with a special session titled *The Spitzer Observatory: The evolution of a space mission from initial idea, through years of competition and debate, followed by arduous solution of technical problems before launch and the acquisition of novel astronomical data*. Organized by longtime HAD member Martin Harwit, the session featured invited talks by Renee



Those attending the HAD sessions enjoyed a number of fine presentations on a variety of topics. Seen here are Virginia Trimble, Kevin Krisciunas, Pat Seitzer, and Marc Rothenberg.



Marc Rothenberg, Chair of the HAD Prize Committee, present certificates to Wayne Orchiston and Stella Cottam, winners of the 2019 LeRoy E. Doggett Prize.

Rottner (University of California) and by David Gallagher and Michael Werner (both of the Jet Propulsion Laboratory). This excellent session was extremely well-attended, with over seventy people in the audience!

The Monday morning and afternoon (HAD II and III) sessions offered seventeen contributed talks, arranged roughly in chronological order by topic. Unfortunately, long-time member Linda French was unable to attend the meeting, one of many victims of the partial government shutdown then in effect. I had been looking forward to her talk about Algol, and early interpretations of its variability.

The annual HAD Town Hall was held on Monday afternoon, between the hours of 1:00 and 2:00. A report on that meeting may be found on page four.

Another disappointment caused by the shutdown was that David DeVorkin, who had graciously agreed to present a plenary lecture on George Ellery Hale, was unable to attend. This talk was intended to be a belated tribute to Hale on the occasion of his 150th birthday. Fortunately David had completed his presentation ahead of time, and was able to send it to HAD Past Chair Marc Rothenberg, who read it in David's stead on Monday afternoon.

The six HAD poster papers (three conventional, three iPosters) were available for viewing during the entire day. After the evening poster session we convened at the Blueacre Seafood restaurant for our annual "minibanquet". Thirty-three people attended, and a good time was had by all. I would like to thank Woody Sullivan for handling all of the local arrangements!

The HAD V session on Tuesday morning was rather informal. Our Osterbrock Prize winners, Stella Cottam and Wayne Orchiston, provided a review of the research which went into the preparation of their book. Then Philip Nicholson, new to the HAD Executive Committee, took the stage to ask members for their advice in the preparation of the forthcoming third edition of the *Biographical Encyclopedia of Astronomers*. We wish Phil all the best, and thank him for assuming the mantle of Editor-in-Chief for what is sure to be a monumental undertaking!

The abstracts from the meeting may be viewed at https://had.aas.org/membership/had_meetings/2019. We hope to see you next January in Honolulu, where it should not be quite as rainy!

had.secretary@aas.org



From the Chair

*Alan Hirshfeld, University of
Massachusetts Dartmouth*

HAD's ceremonial gavel, pictured below, is inscribed with the initials of our division's past and present Chairs. I'm honored to join this illustrious array of astronomy historians, reaching back to HAD's first Chair, Jack Eddy, elected in 1981. (How many of the subsequent initials can you identify?*) As I confessed to HAD attendees at last January's AAS meeting in Seattle, mine was the second surprise election of 2016! I've spent the interim as Vice-Chair, coordinating obituaries of deceased AAS members and learning the administrative ropes from my predecessor Pat Seitzer and Division Secretary Ken Rumstay. My thanks to both of them for their patient guidance. At the moment, we are working on several exciting centennial celebrations at the January 2020 AAS meeting in Honolulu.



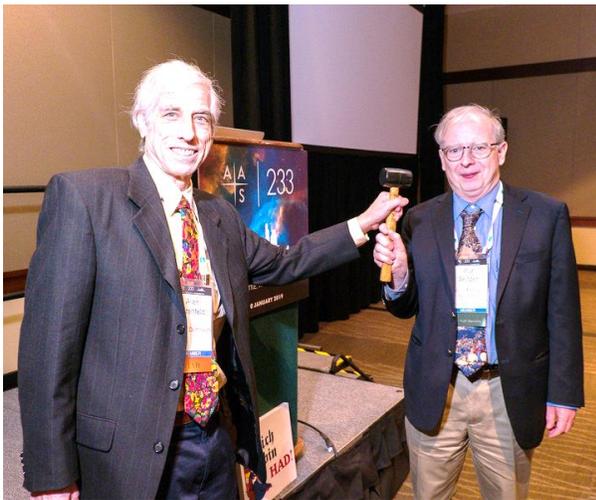
The HAD gavel, passed on to new Chairs when they start their terms of service, The initials engraved on the handle are, in chronological order, JE, OG, EK, DO, KB, JL, SD, WS, DD, VT, BW TW, DY, SS, TH, JH, JP, MR, PS, and AH.

* Please see https://had.aas.org/leadership/past_leadership for a list of all past HAD Chairs!

Until my election, I had observed HAD's activities from a distance, having balked at the expense of attending meetings. In retrospect, that would have been money well-spent, for my presence at recent AAS meetings has generated meaningful connections with HAD colleagues I had known only through email, if at all. Belonging to a group with a common scholarly interest, hearing about new research findings and historical insights, and just schmoozing over a meal have added a rewarding dimension to my career as an astronomer and history enthusiast.

Yet even with my belated awakening to the value of active participation, I was surprised to learn that only about a third of HAD members vote in division elections (and even more surprised at the news that voter turnout in the 2019 AAS election was a dismal 18%). I would like HAD to be relevant to all of its 400+ members, whether longstanding or recently joined. We are always looking for articles for the newsletter you are reading now and for our "This Month in Astronomical History" web column. I am eager to hear your thoughts on what HAD can do for you, as well as what you can do for HAD.

ahirshfeld@umassd.edu



Former HAD Chair Pat Seitzer (on the right) passes the ceremonial gavel to his successor, Alan Hirshfeld, at the conclusion of the HAD Town Hall on January 7th. Pat now holds the office of Past Chair, and will head up our Prize Committee for the next two years.



From the Vice Chair

Kevin Krisciunas, Texas A&M University

Like many who have been willing to run for an AAS position, I was surprised and pleased by my election. As Vice Chair of the Historical Astronomy Division I will be in charge of commissioning, editing and occasionally writing obituaries of deceased members of the Society. I thank my predecessor Alan Hirshfeld for help in ramping up that endeavor. And I thank him in advance for future guidance. To all HAD members reading this, please consult the list of outstanding obituaries which need to be written (<https://had.aas.org/obituaries/outstanding-obits>). If you or someone you know was a close colleague of a person on the list, please volunteer, or ask that someone you know to volunteer.

My interest in the history of science dates back to my first semester in college. An academic advisor suggested that I sign up for a class called "Readings from the History of Science in German." Before Kant was a philosopher, before Goethe was a poet, their prime interest was natural science. So we read about Kant's nebular hypothesis and Goethe's color theory in the original German. We read Kirchhoff on spectra and Freud on dreams.

The spring and summer of the year I turned 20 I did the Grand Tour of Europe. When I was in Leningrad (now St. Petersburg, again) I visited Pulkovo Observatory, which during the 19th century was considered the "astronomical capital of the world." This experience instilled in me a lifelong interest in Pulkovo's history and the history of the Struve family of astronomers.

To be an astronomer is to be a member of a family that can trace its lineage back 2500 years or more. To be able to make a contribution to modern science is satisfying to a great degree. To preserve and appreciate the record of what has

been done, and who did what, is an opportunity and a responsibility I accept.

krisciunas@physics.tamu.edu



From the Secretary-Treasurer

Ken Rumstay, Valdosta State University

Greetings all! I hope this issue finds you in good health and good spirits, and enjoying reasonably pleasant weather. As I write this it's a lovely spring morning here in Valdosta, Georgia.

In January we enjoyed a wonderful meeting in Seattle; while it was good to see so many of you there, we regret that the government shutdown made attendance impossible for some. A report on our annual Town Hall begins in the next column.

I would like to thank you all for your patience as I and the other officers deal with issues stemming from a change in the AAS e-mail protocol. Last year all AAS IT functions were outsourced to Clearview Group LLC, and all e-mail functions were migrated from Google Mail to Microsoft 365. Inevitably, a few technical difficulties have been encountered, but they should have been resolved by the time you read this.

I would like to conclude by asking you to please keep your contact information up to date with the AAS! To make changes, go to <https://aas.org/>, log in, and click on "Membership" and then "Update Profile." And please set your spam filter to allow HAD messages to reach you. I promise to not bombard you with too much e-mail!

Thank you once again for trusting me in this position; it has been an honor and a privilege to serve as your Secretary-Treasurer. I hope to see you all (or many of you, at least) next January in Honolulu!

had.secretary@aas.org

**Minutes of the January 2019
HAD Town Hall**

Ken Rumstay, Valdosta State University

The annual HAD Town Hall convened at 1:00 pm on January 7th in meeting rooms 618/619 at the Washington State Convention Center in Seattle. Committee members in attendance were Pat Seitzer (Chair), Alan Hirshfeld (Vice Chair), and Ken Rumstay (Secretary-Treasurer). Absent were Pedro Raposo and Robert Stencil. Also present were newly-elected Vice Chair Kevin Krisciunas and newly-elected Committee members Rebecca Charbonneau and Philip Nicholson. Approximately forty members were in attendance.

Pat Seitzer began the session by welcoming everyone, and then made four announcements:

- 1) Monday afternoon's plenary talk on George Ellery Hale, which was to have been presented by David DeVorkin, would in fact be read by Marc Rothenberg. An employee of the Smithsonian Institution, David was prevented from attending the meeting by the partial government shutdown then in effect.
- 2) Our popular monthly column "This Month in Astronomical History" would have a new editor: Jason Ybarra would be assuming that position in February.
- 3) There would be a plenary talk on lunar science from Apollo 11, in commemoration of the 50th anniversary of the first manned Moon landing, at the Summer AAS meeting in St. Louis.
- 4) Long-time HAD member Virginia Trimble has been named an AAS Patron, only the ninth individual to be so honored.

Secretary-Treasurer Ken Rumstay presented data on the state of our Division. As the table below shows, we enjoyed substantial growth in membership during 2018, good news indeed. The increase in the number of Junior members is, we believe, a result of our decision to no longer require division dues of undergraduate or graduate students.

	2012	2013	2014	2015	2016	2017	2018
Full	145	133	132	140	139	134	181
Associate	39	41	48	48	49	45	43
Junior	12	19	17	8	8	5	46
Emeritus	70	72	77	86	96	103	119
Divisional Affiliate	35	27	24	23	25	23	20
Other	6	2	4	3	3	4	3
Total	307	294	302	308	320	314	412

The tables below* provide an account of HAD's financial state. We're in good shape, though we took a bit of a loss in our investments last year.

	2016	2017	2018
Balance as of January 1 st	\$17,553.73	\$20,543.25	\$24,750.76
Income	5,069.95	6,030.31	\$3,036.67
Expenditures	2,080.43	1,822.80	\$3,465.51
Balance as of December 31 st	\$20,543.25	\$24,750.76	\$24,321.92

HAD operating account (2016-2018)

	2016	2017	2018
Balance as of January 1 st	\$34,767.75	\$37,234.15	\$42,479.60
Income	3,968.84	5,116.81	(374.60)
Expenditures	1,502.44	0.00	2,847.71
Balance as of December 31 st	\$37,234.15	\$42,350.96	\$39,257.29

LeRoy E. Doggett Prize account (2016-2018)

	2016	2017	2018
Balance as of January 1 st	\$21,121.44	\$24,852.34	\$29,733.31
Income	3,778.25	6,499.30	1,066.25
Expenditures	47.35	1,618.33	1,850.58
Balance as of December 31 st	\$24,852.34	\$29,733.31	\$28,948.98

Donald E. Osterbrock Prize account (2016-2018)

Ken thanked the generous individuals who had made financial contributions to HAD, and to its two prize funds, during 2018: Bella Chiu, Edward Conklin, Donald Davis, David DeVorkin, Reginald Dufour, Tom English, George Field, A. Galatola, Donald Groom, Dieter Hartmann, Arnold Heiser, Alan Hirshfeld, David Jenner, Donald Liebenberg, Marie Lukac, Liam McDaid, David Meisel, Wayne Osborne, Ken Rumstay, Joseph Tenn, Glenn Sandlin, D.E. Shemansky, Woody Sullivan, Thomas Williams, and Donald Yeomans. Their generosity has helped HAD achieve its goals during this past year.

Ken reminded everyone of the HAD minibanquet, to be held that evening, and provided directions to the Bluacre Seafood restaurant. He closed his report by noting that HAD would next meet in Honolulu in January 2020, and that we were soliciting suggestions for special sessions to be offered at that meeting.

Alan Hirshfeld then took the podium. He reminded everyone that as Vice-Chair he is responsible for seeking authors to write obituaries of deceased AAS members. These obituaries are posted to the HAD website and the online *Bulletin of the American Astronomical Society*. Since assuming this post Alan has overseen the addition of forty-

nine obituaries to the website! He then noted the passing of the following AAS members in 2018:

- | | |
|------------------------------|-----------------------------|
| <i>Abrahams, Peter</i> | <i>Lucy, Leon</i> |
| <i>Belton, Michael J. S.</i> | <i>Lynden-Bell, Donald</i> |
| <i>Brownlee, Robert R.</i> | <i>Milani, Andrea</i> |
| <i>Burke, Bernard</i> | <i>Palumbo, Giorgio</i> |
| <i>Cannizzo, John K.</i> | <i>Pauls, Thomas A.</i> |
| <i>Coleman, Paul H.</i> | <i>Roman, Nancy Grace</i> |
| <i>Flurchick, Kenneth M.</i> | <i>Schorn, Ronald A.</i> |
| <i>Freeman, Tarsh</i> | <i>Smith, Bradford A.</i> |
| <i>Giacconi, Riccardo</i> | <i>Tanaka, Yatsuo</i> |
| <i>Graham, John A.</i> | <i>Thompson, Michael J.</i> |
| <i>Haughey, Louis C.</i> | <i>Walborn, Nolan</i> |
| <i>Hauri, Erik</i> | <i>Ward, William E.</i> |
| <i>Kovalevsky, Jean</i> | <i>Westfall, John E.</i> |
| <i>Kozai, Yoshihide</i> | <i>Winegarten, Debra</i> |
| <i>LoPresto, James C.</i> | <i>Young, Louise Gray</i> |

Alan noted that there is a considerable backlog of needed obituaries, many for AAS members who had passed within the last five years, and asked HAD members to consider volunteering for this task. He also stated that in some cases obituaries illuminate the development of particular areas of astronomy, and suggested a few ways in which these might be featured more prominently.

Members in attendance were then invited to ask questions or offer comments. Peter Broughton noted that limiting the oral presentations to ten minutes was very restrictive, and wondered whether speakers might be given more time by starting our meetings earlier, or extending them to an additional day. The officers will investigate this possibility. Joe Tenn reminded us that he could use volunteers to assist with the AstroGen project. And Woody Sullivan suggested that the History of HAD article on our website should be updated to the present time.

The last item on the agenda was the installation of new officers. Pat graciously passed the gavel (engraved with the initials of past HAD Chairs) on to Alan, who will be our Chair until January 2021. Kevin Krisciunas in turn became our new Vice-Chair, and we welcomed our two new At-Large Committee Members: Rebecca Charbonneau and Philip Nicholson.

Thanks to all who attended the January 2019 HAD Town Hall!

had.secretary@aaas.org

* Please note that these figures differ slightly from those presented at the Town Hall. A few outstanding 2018 transactions were not completed until well into the new year.

Congratulations!

Ken Rumstay, Valdosta State University

Three of our members have recently been honored in a variety of ways, and we would like to offer our congratulations to them in these pages.

First off (and we apologize for not reporting this sooner) the AAS Board of Trustees last year elected long-time HAD member Virginia Trimble as a Patron of the Society. As described in her nomination, "She has been recognized for her work in writing numerous reviews of our science with the National Academy of Sciences Award for Scientific Reviewing. For the many other selfless ways she has served the Society, she was awarded our own George Van Biesbroeck Prize; she is also the recipient of the Klopsteg Memorial Award from the American Association of Physics Teachers. She was elected Vice-President of the AAS in 1997 and also served as Vice-President of the Executive Committee of the IAU."

Then, days later, the International Astronomical Union announced that minor planet 9271 would be named Trimble in Virginia's honor. The asteroid had been discovered on 1978 November 7 by E. F. Helin and S. J. Bus at Palomar Observatory.

Peter Broughton was awarded the 2018 Chant Medal of the Royal Astronomical Society of Canada. This award was established in 1940 in appreciation of the work of the late C. A. Chant in furthering the interests of astronomy in Canada.

His citation noted that "Peter Broughton is an outstanding writer on the history of Canadian astronomy. He is a doyen of those working in the field, by virtue of the quality and quantity of his contributions." It cites his many scholarly contributions, and concludes that "Peter Broughton's major monograph on J.S. Plaskett (*Northern Star*, 2018, University of Toronto Press, ISBN 978-1442630178) is his most important achievement. It enables us now to see the first Canadian astrophysicist of world standing in the round."

Finally, our Past Chair Pat Seitzer attended the opening of the Boyden Observatory's Andrew Common mirror exhibit, and was made an honorary member of the Bloemfontein Center of the Astronomical Society of Southern Africa. This mirror was installed in A.A. Common's telescope in his backyard in Ealing (a London suburb) to create what was, in 1890, the world's largest telescope. Pat is an International Patron of the

Friends of Boyden, and is the fifth honorary member since the Center's inception in 1959.

Congratulations to these three individuals for the well-deserved honors bestowed upon them!

had.secretary@aaas.org



Virginia Trimble, the American Astronomical Society's newest Patron, at the XXIXth IAU General Assembly in 2015.



Peter Broughton and the Chant medal he received from the Royal Astronomical Society of Canada.



Pat Seitzer with his Certificate of Honorary Membership from the ASSA Bloemfontein Center. With him are the Center's previous Chairmen; from left to right are: Dawie Van Jaarsveldt, Gerrit Penning, Pat Seitzer, Braam Van Zyl, Chris de Coning, and current Chairman Matie Hoffman.



In Memoriam: Irene Osterbrock

*Ken Rumstay, Valdosta State University,
and J.D. Hillard, U.C. Santa Cruz*

We were greatly saddened to hear of the passing of Irene Osterbrock on February 2nd at the age of 92. Wife of Donald Osterbrock, she regularly attended HAD meetings with him, and became (after his passing) the first Patron Member of our division. We are grateful to J.D. Hillard of the University of California at Santa Cruz for providing the following comments.

Born Irene Hansen, as a young woman, she worked at the Yerkes observatory as a “computer,” performing calculations for the astronomers. She met Don (then a graduate student) there, and they married in 1952.

Irene was a valuable helpmate to her husband throughout his career, editing his publications and organizing his research records. When her husband became Director of the Lick Observatory in 1973, Irene served as a volunteer at UC Santa Cruz Library; her painstaking indexing of Don’s papers enabled them to become part of the Online Archive of California.

After Donald Osterbrock’s death in 2007, Irene worked with Sandra Faber to establish the Donald and Irene Osterbrock Leadership Program. This program provides astronomy graduate students at UC Santa Cruz with mentors and funding for projects that develop leadership skills. She was also key in establishing our Donald E. Osterbrock Book Prize, which has been awarded since 2011. And in 2012 she was named a Patron of the American Astronomical Society, only the eighth individual to be so honored.

Don and Irene are survived by three children and three grandchildren.

had.secretary@aaas.org



Yerkes Gift Remains Unresolved

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

When financier Charles T. Yerkes donated a 40-inch refracting telescope and its enclosing building to the University of Chicago, he created the core of the observatory that bears his name. However, he stipulated that the Trustees owned the facility only “as they shall use the same for the purpose of astronomical investigation, but upon their failure so to do, the property hereby conveyed shall revert along with the refracting telescope to the said Charles T. Yerkes or his heirs at law, the same as if this conveyance had never been made.” (Yerkes, 1897*). The University already owned the land beneath Yerkes’ gift. Since then, the University has increased the Observatory land and facilities through the generosity of other donors and through responsible use of its own funds. Upon this infrastructure, George Ellery Hale envisioned a multi-disciplinary research facility combining astronomy, physics, and chemistry. The resulting institution produced world-class science for over a century.

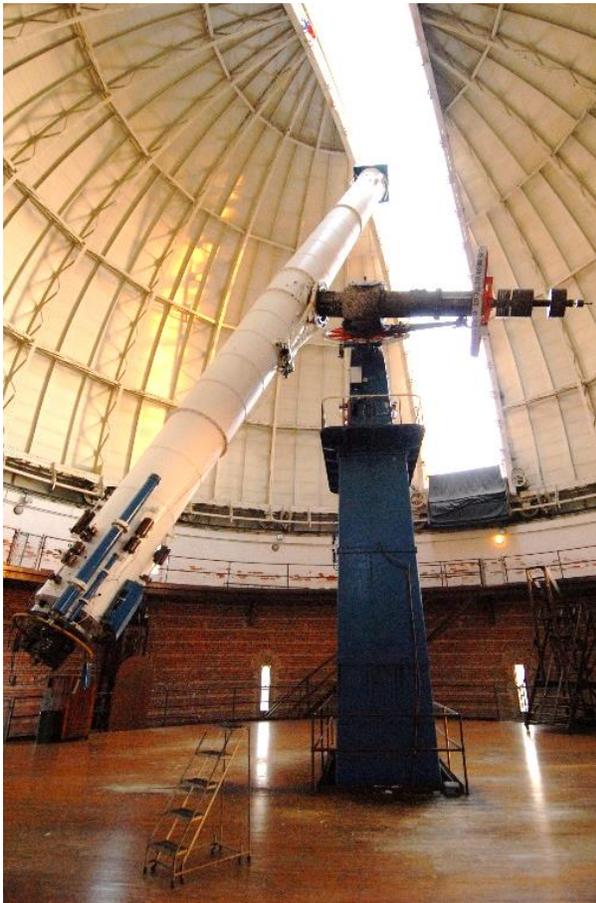
The 40-inch refractor built by Alvan Clark and Sons was the largest operational telescope in the world from 1897 until 1909. In 1903 Frank Schlesinger established photographic techniques for measuring stellar parallaxes, which continued to be computed at Yerkes Observatory until the 1990s. Sherburne W. Burnham used the telescope to study double stars and measure stellar masses in the early 20th century. However, advances in technology have since created more powerful instruments and opened new regions of the electromagnetic spectrum. With their astronomical research using other instruments, including space-

* This letter may be viewed at <https://physical-sciences.uchicago.edu/sites/physical-sciences.uchicago.edu/files/uploads/Charles%20T%20Yerkes%20gift%20letter%20-10-21-1897.jpg>).

borne, the University of Chicago chose to close the Observatory to the public on 2018 October 1, with the eventual goal of transferring it to a non-profit organization capable of revitalizing this historic observatory as an educational and community resource.

Since the closure of Yerkes Observatory, the University of Chicago continues to participate in SkyNet and maintain the photographic plate collection. While the University contacts the descendants of Charles Yerkes, these activities should meet the terms of his original gift that astronomical investigations continue. Without a clear title, the University does not want to transfer the property nor would a foundation want to accept it. While we would have liked to have heard that the restrictions had been resolved by now, we understand that these things take time. We trust that the University and family will reach an understanding that will enable Yerkes Observatory to inspire and educate the public for another century.

jennifer@bartlettastro.com



The historic 40-inch Alan Clark refracting telescope at Yerkes Observatory, photographed in 2012 by John Briggs.



Short Report on the Conference “Atmosphereless Solar System Bodies in the Space Exploration Era”, Kharkiv Ukraine 2018 June 18-22

Robert M. Nelson, Planetary Science Institute

Last year was the 210th anniversary of astronomical science at the Astronomical Observatory of Karazin – Kharkiv University in Kharkiv Ukraine and also the 40th anniversary of the study of small bodies of the solar system at the Observatory.

In commemoration of these anniversaries, the Physics Department of Karazin – Kharkiv University hosted an international conference on Atmosphereless Solar System Bodies (ASSBs) during the week of 2018 June 18-22. The intent of the conference was to provide a comprehensive insight into the study of ASSBs, including theoretical and laboratory investigations combined with information returned by ground-based observers, telescopes in earth orbit and deep space missions.

Background

In 1785, four years before the ratification of the United States constitution, the European region that we now call Ukraine was incorporated into the imperial Russian empire under the reign of Empress Catherine the Great. The University at Kharkiv, Ukraine was founded in 1804 at the initiative of the educator V. N. Karazin under a charter issued by Czar Alexander I of Russia, Catherine the Great’s grandson. It is now known as the Karazin – Kharkiv National University.

The University rapidly grew into an international center of intellectual excellence, claiming as graduates three Nobel laureates including the great theoretical physicist Lev Landau. (Curiously, before his move to Moscow, Landau, known as a great theoretician, chaired Karazin University’s Department of Experimental Physics. There was a separate Department of Theoretical Physics.)



Conference participants gather in front of the statues of Karazin-Kharkiv University's three Nobel laureates. The statue of Lev Landau is at center.

The University established its Astronomical Observatory in 1808. It quickly rose to become a leading center of astronomical excellence conducting fundamental research in the physics of the Sun, the planets, asteroids, comets and satellites. The Russian-American astronomer, Otto Struve was a Kharkiv native and started his scientific career at the Observatory. After Struve's immigration to the United States, he went on to lead a number of American astronomical institutions, and also became President of the International Astronomical Union.

In 1918 Academician N. P. Barabashev began his systematic studies of the Moon and planets at the Kharkiv Observatory. In 1961 he led the group that published the first images of the far side of the Moon, based on photos from Russia's Luna 3 spacecraft. He remained at the observatory until his death in 1971.

The importance of laboratory astrophysics experiments in support of astronomical observations was expanded at the observatory by Leonid Akimov who, following the work of Bernard Lyot in France, designed one of the first laboratory goniometric photometers, an instrument intended to measure the angular scattering properties of simulated planetary regolith materials in the laboratory. The photopolarimetric data from

such laboratory astrophysics measurements is compared to astronomical observations at the telescope. The observatory museum displays Akimov's original instrument. Akimov, born in 1937, continued his work as a member of the Department of Planetary and Solar Physics until his death in 2017. Akimov's laboratory research endeavors were continued by Yuriy Shkuratov who now serves as Head of the Department of Remote Sensing of Planets. Today, a new generation of goniometric photopolarimetric laboratory instruments continues at the observatory under the direction of Vladimir Psarev.

The Conference

The rationale for the 210th anniversary conference was to provide a deep and comprehensive insight in selected aspects of the study of ASSBs, both by ground-based techniques and space missions. The material addressed various remote sensing techniques, laboratory simulations and theoretical modeling to explore new ideas relevant to understanding the latest results of investigations of small solar system bodies and planetary satellites. The conference website (containing abstracts of the scientific presentations), may be found at <http://www.astron.kharkov.ua/conference/ssb/18/index.php>.

The anniversary conference was organized by Irene Belskaya, of the Karazin - Kharkiv University.

An Important Historical Note

Kharkiv exchanged hands four times during the bitter Eastern Front battles of World War II, and the impact on the local civilians was severe. Just outside of Kharkiv is a mass grave of thousands of Ukrainian Jews and Roma who were exterminated during the Nazi occupation. The observatory grounds include a poignant reminder of this past – a memorial to the seven members of the Astronomy Department who died under the Nazi occupation during World War II (often called the Great War against fascism). Local citizens regularly place flowers at the memorial today, more than a half century after the event. At the base of the memorial is a cast iron remnant from a spacecraft re-entry, a symbolic testimony to the life goals of the observatory staff.



The war memorial erected on the observatory grounds in honor of seven members of the observatory staff who lost their lives in World War II. Local citizens often place flowers at the monument to honor the memory of those who were lost.

The inscription on the monument has the names, occupations and cause of death of the seven members of the staff who lost their lives. They are:

Alexey Ivanovich Rasdolsky, professor 1877 - Jan 31, 1942, starvation.

Sergey Matveevich Semiletov, professor, 1879 - March 10, 1943, killed during bomb attack

Yury Nicolaevich Fadeev, docent (assist. prof.), 1906 - Feb 08, 1942, starvation

Mstislav Cergeevich Savron, docent, 1902 - March 15, 1943, shot in home during Nazi's return to Kharkov.

Grigory Lasarevich Strashny, science fellow, ~1905 - Jan 1942, killed in Jewish ghetto

Ludmila Mihaylovna Kostyrya, calculator 1884 - Apr 03, 1942, starvation

Vassily Alexeevich Balansky, docent, 1907 - March 14, 1942, missing following bomb attack

The author would like to express his appreciation to Dimitry Stankewich (Department of Astronomy at Karazin University) for translating these.

rmnelson2@earthlink.net

Book News

Ken Rumstay, Valdosta State University

We are pleased to report that Steven J. Dick's *Astrobiology, Discovery, and Societal Impact* (Cambridge University Press, 2018, ISBN 978-1108426763), reviewed in our last issue, received a 2019 PROSE Award by the Association of American Publishers. These prestigious awards honor scholarly works published in 2018 in a variety of categories; Steve's was in the category of Cosmology and Astronomy.

Publication of another book by Steven was announced last month. *Classifying the Cosmos: How We Can Make Sense of the Celestial Landscape* (Springer, 2019, ISBN 978-3-030-10380-4) is, according to its author, a spinoff from his earlier *Discovery and Classification in Astronomy* (Cambridge University Press, 2013, ISBN 978-1107033610). To quote the description on the publisher's website,

Since the invention of the telescope 400 years ago, astronomers have rapidly discovered countless celestial objects. But how does one make sense of it all?

Astronomer and former NASA Chief Historian Steven J. Dick brings order to this menagerie by defining 82 classes of astronomical objects, which he places in a beginner-friendly system known as "Astronomy's Three Kingdoms." Rather than concentrating on

technicalities, this system focuses on the history of each object, the nature of its discovery, and our current knowledge about it.

The ensuing book can therefore be read on at least two levels. On one level, it is an illustrated guide to various types of astronomical wonders. On another level, it is considerably more: the first comprehensive classification system to cover all celestial objects in a consistent manner.

Congratulations on the PROSE award, Steve, and thank you for all your contributions to the study of astronomy's rich history!

Two additional books of interest have been released with the past months. *Finding our Place in the Solar System: The Scientific Story of the Copernican Revolution* (Cambridge University Press, 2019, ISBN 978-1107182295) was written by two faculty members at institutions within my home state of Georgia: Todd Timberlake (Berry College) and Paul Wallace (Agnes Scott College). According to its publisher, this book

gives a detailed account of how the Earth was displaced from its traditional position at the center of the universe to be recognized as one of several planets orbiting the Sun under the influence of a universal gravitational force. The transition from the ancient geocentric worldview to a modern understanding of planetary motion, often called the Copernican Revolution, is one of the great intellectual achievements of humankind. This book provides a deep yet accessible explanation of the scientific disputes over our place in the solar system and the work of the great scientists who helped settle them. Readers will come away knowing not just that the Earth orbits the Sun, but why we believe that it does so. The Copernican Revolution also provides an excellent case study of what science is and how it works.

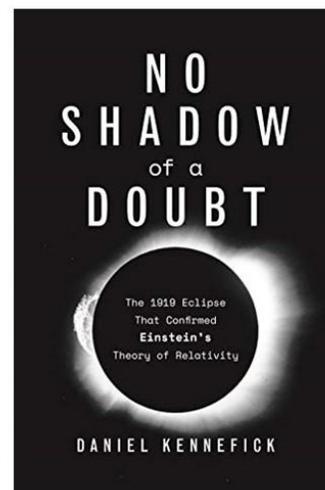
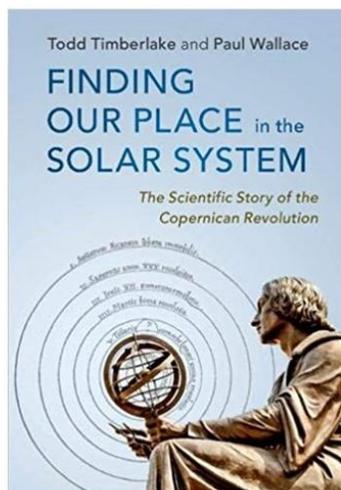
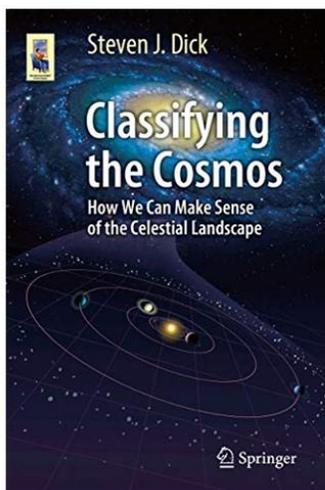
Of course, this May we celebrate the centennial of the solar eclipse which provided confirmation of the bending of starlight predicted by Einstein. Daniel Kennefick's *No Shadow of a Doubt: The 1919 Eclipse That Confirmed Einstein's Theory of Relativity* (Princeton University Press, 2019, ISBN 978-0691183862) recounts that monumental achievement:

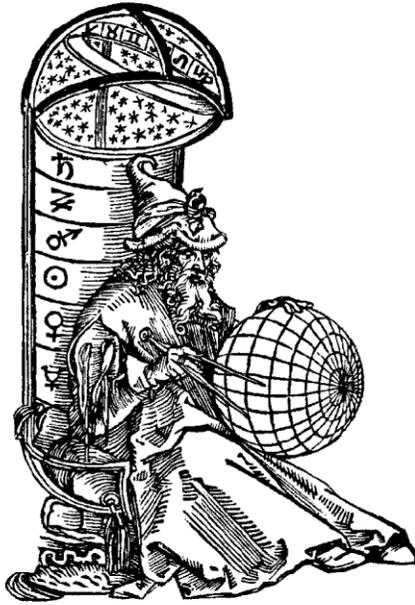
In 1919, British scientists led extraordinary expeditions to Brazil and Africa to test Albert Einstein's revolutionary new theory of general relativity in what became the century's most celebrated scientific experiment. The result ushered in a new era and made Einstein a global celebrity by confirming his dramatic prediction that the path of light rays would be bent by gravity. Today, Einstein's theory is scientific fact. Yet the effort to "weigh light" by measuring the gravitational deflection of starlight during the May 29, 1919, solar eclipse has become clouded by myth and skepticism. Could Arthur Eddington and Frank Dyson have gotten the results they claimed? Did the pacifist Eddington falsify evidence to foster peace after a horrific war by validating the theory of a German antiwar campaigner? In No Shadow of a Doubt, Daniel Kennefick provides definitive answers by offering the most comprehensive and authoritative account of how expedition scientists overcame war, bad weather, and equipment problems to make the experiment a triumphant success.

By chronicling the expeditions and their enormous impact in greater detail than ever before, No Shadow of a Doubt reveals a story that is even richer and more exciting than previously known.

The authors of these last two monographs are not currently HAD members, but perhaps we might persuade them to join our ranks!

had.secretary@aaS.org





Historical Astronomy Division of the American Astronomical Society

HAD News #93, April 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/HADN93.pdf>

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