

Newsletter 18-43

Issue 18-43, October 20, 2018

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COMMUNITY ANNOUNCEMENTS AT THE DPS MEETING

DPS will try something new in the program at this year's meeting. We have allotted 5 minutes at the beginning of the plenary sessions for oral announcements about items of broad interest to our community. If you would like to make a very short announcement (no longer than 2 minutes), please send a short description of your topic to mmcgrath@seti.org [1] for coordination and approval by DPS leadership.

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LOOKING FOR SCIENTISTS TO VOLUNTEER FOR THE DPS MEETING

Consider giving an hour of your time to support early career scientists and undergraduate students

We are looking for DPS members to volunteer for two events being sponsored by DPS at the upcoming meeting in Knoxville.

1) We are looking for scientists to give feedback to early career scientists as

they preview their presentations for the meeting -
Sunday October 21st at 3pm
Monday October 22nd at lunch
Monday October 22nd at 4pm

2) We are looking for scientists to spend one hour with undergraduate students in local intro planetary science courses (Exploring the Planets) mostly freshmen and sophomores. We want to make sure that each group of students meet and become comfortable with several scientists. There will be a faculty member and TA with each group so that you can spend time talking to students. Your commitment is one hour in each time slot (not the entire time).

- Tuesday, Oct 23rd, 11:15 am - 1:45 pm
- Wednesday, Oct 24th, 8:00 am - 10:30 am
- Wednesday, Oct 24th, 12:15 pm - 2:45 pm
- Wednesday, Oct 24th, 2:45 pm - 5:15 pm
- Thursday, Oct 25th, 1:30 pm - 4:00 pm
- Friday, Oct 26th, 12:30 pm - 3:00 pm

Please contact Sanlyn Buxner, buxner@psi.edu [2] if you are willing to volunteer your time for either (or both!) events

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DPS NOMINATING SUBCOMMITTEE MEMBER ELECTION DURING DPS 50

Our DPS by-laws allow for the election of a member to the Nominating Sub-committee each year at the members meeting - this year's Members Meeting takes place

on Wednesday Oct. 24, 12:30 pm.

Nominations of subcommittee candidates are made in person at the Members Meeting and will not close until at least three members are nominated. Please consider nominating those you think would be good for the position. The membership will then vote at the meeting and elect one person to work with the other two subcommittee members for a 3 year term.

This position is important because they seek candidates to run for the elected offices of Vice-Chair and Committee members. The division's leadership is responsible for our annual meetings and carrying out the activities of the division including managing the division's funds, carrying out its elections, federal relations, education, press activities, web maintenance, providing professional development programs, ensuring a climate conducive to collegial and productive scientific exploration and enabling publication of our scientific results. The main activities for this committee are generally conducted in the spring semester in preparation for summer DPS elections. If you have questions about the tasks please feel free to contact the outgoing nominating subcommittee chair (Kelsi Singer; ksinger@boulder.swri.edu [3]), the incoming chair (Yvonne Pendleton, yvonne.pendleton@nasa.gov [4]) or [other current/past members](#) [5].

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DPS WORKSHOP REMINDER: JUNO AND JUNO-SUPPORTING JUPITER ATMOSPHERIC RESULTS

Sun Oct 21, 2018, 1:00-6:00pm Room 301 B (Knoxville Convention Center)

This is immediately prior to the 50th AAS/DPS meeting, but no DPS registration

is required to attend this meeting.

The workshop is intended to foster collaboration and discussion between the Juno science team and the Earth-based observation community. We will have people from the Juno project present mission updates and members of the Earth-based community present updates on their observations. The structure of the meeting will be informal in order to encourage interactions between all participants.

There is no registration required for this workshop, but please send us an email (fachreddin.tabataba-vakili@jpl.nasa.gov [6] and/or Glenn.S.Orton@jpl.nasa.gov [7]) if you intend to give a brief talk relating to Juno or Jupiter. This will help our organization.

We are working on some requests for WebEx participation, but this capability is not guaranteed at this time.

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DPS WORKSHOP: PRIMITIVE OR PROCESSED? CARBON IN TODAY'S SOLAR SYSTEM VS. THE EARLY SOLAR SYSTEM AND THE INTERSTELLAR MEDIUM

As part of the SSERVI-sponsored series of workshops on Carbon in the Solar System, we will be holding a panel discussion at DPS called "Primitive or Processed?" Recent investigations within our Solar System, including the Pluto system, the Saturn system, Mercury, and nearly all points in between, point to carbon in some form on many bodies, though its nature is often elusive. The event will assemble a panel of experts (see below) to discuss carbon in the solar system (in meteorites and on planetary surfaces) and in the interstellar medium, and the relationships between them. How processed are the carbon

compounds found across the solar system, compared to the carbon in the ISM?

How does the processing occur, and on what timescales? What future measurements can help us to better understand carbon in our solar system?

Expert panelists include Dr. Yvonne Pendleton (NASA Ames), Dr. Diane Wooden (NASA Ames) and Dr. Kelly Miller (SwRI San Antonio). We hope you'll join us for an engaging discussion!

Details:

Sunday Oct 21, 3-6 PM

Ballroom F-G

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PUBSPACE AND YOU WORKSHOP AT DPS

PubSpace and You: How to Deposit Your Manuscripts as Required by ROSES at the DPS Fall Meeting on Monday, Oct 22, 12:00 pm-12:45 pm, Room 301B. We will discuss the relatively new ROSES requirements to submit your manuscripts to NASA's PubSpace system, as well as the practicalities for doing so with a variety of different publications. Please join us.

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EDUCATION AND OUTREACH SHAREATHON AT DPS

Rotunda Room (Knoxville Convention Center) on Monday October 24th from 5 to 6:15pm
Join us to share your best activities and materials for education and outreach with other scientists, educators and local high school teachers. Learn what others are doing as you prepare for your own events looking towards the Apollo 11th 50th Anniversary next summer. Additionally, we are soliciting your feedback about what support you need and want from the DPS to support your education

and outreach work. Stop by and talk to others doing education and outreach events and learn how to get involved in various settings. Participants are welcome to bring materials to hand-out and do demonstrations.

Please contact Sanlyn Buxner buxner@psi.edu [2] with questions.

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DPS MEETING JWST TOWN HALL

Tue. Oct. 23, 12:00 pm-1:30 pm, Room 301 C

Updated Agenda:

- * Project overview/status (20m) - Eric Smit, JWST Program Scientist
- * Exposure Time and Planning Tools update (15m) - Bryan Holler
- * Scattered Light and Bright Limits (10m) - John Stansberry
- * GTO/ERS summary, GO programmatics (20m) - Stefanie Milam
- * Q/A, Including HST gyroscope status/impacts (15m)

John Stansberry JWST -- NIRCcam Operations & Commissioning Lead
Solar System Lead Space Telescope Science Institute 410 338 2442

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LSST AND THE SOLAR SYSTEM WORKSHOP

4:30-6:00pm Weds Oct 24, 2018, 50th DPS Meeting, Room 301 D-E
(Knoxville Convention Center)

This workshop serves as the annual meeting of the Large Synoptic Survey Telescope (LSST) Solar System Science Collaboration (SSSC) and is open to all DPS attendees. We will provide a brief status of LSST with respect to

Solar System science, provide updates on current and future activities

within the SSSC, and examine follow-up opportunities in the LSST era.

The presentation schedule is as follows:

- LSST Project & Solar System Data Status Update - Mario Jurić (University of Washington/LSST) & Siegfried Eggl (University of Washington/LSST)
- LSST Solar System Science Collaboration (SSSC) Update - Meg Schwamb (Gemini Observatory) & David Trilling (NAU)
- NOAO Data Lab Capabilities in Support of (LSST) Solar System Science - Frank Valdes (NOAO)
- Gemini Solar System Follow-up in the LSST Era - Bryan Miller (Gemini Observatory)

Contact organizers Meg Schwamb (mschwamb.astro@gmail.com [8])

and David Trilling (David.Trilling@nau.edu [9]) with any questions

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DPS WORKSHOP ON LABORATORY STUDIES OF ATMOSPHERES AND PLUMES

Workshop on "Laboratory Studies of Atmospheres and Plumes" organized
by the Laboratory Astrophysics Division of AAS

The object of the Laboratory Astrophysics Division (LAD) is to advance our understanding of the Universe through the promotion of fundamental theoretical and experimental research into the underlying processes that drive the cosmos.

This LAD workshop will consist of five 15-minute-long invited talks showcasing the laboratory astrophysics work being conducted to support planetary missions for the exploration of our solar system and beyond. The invited talks will demonstrate how missions like Cassini, New Horizons, Rosetta, and future missions focused on Europa or exoplanets can benefit from these experimental and theoretical studies. They will be followed by a 10-minute panel discussion to encourage participants to explore the laboratory astrophysics needs for planetary science studies and initiate conversations that could lead to future collaborations and new` research investigations.

The workshop program will be as follows:

12:00-12:05: Stefanie Milam and Ella Sciamma-O'Brien — General introduction and welcome

12:05-12:20: Morgan Cable — "Laboratory Investigations to Support Exploration of Titan"

12:20-12:35: Karl Hibbitts — "Understanding Europa and its potential plumes through laboratory measurements"

12:35-12:50: Will Grundy — "Laboratory Studies of Condensed Volatiles Under Outer Solar System Conditions"

12:50-13:05: Perry Gerakines — "Laboratory Experiments in Support of Comet Exploration"

13:05-13:20: Sarah Horst — "Laboratory astrophysics investigations supporting exoplanet exploration"

13:20-13:30: Panel discussion

The workshop will be Thursday October 25th from 12:00-1:30 PM in room 301D-E.

Lunch boxes will be provided on a first come first serve basis to the first 30 participants.

Please contact Dr. Ella Sciamma-O'Brien (ella.m.sciammaobrien@nasa.gov [10])

or Dr. Stefanie Milam (stefanie.n.milam@nasa.gov [11]) with any questions.

Acknowledgments: We greatly appreciate support for this workshop from the VORTICES team from SSERVI, and from Thermo Fisher Scientific.

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NEOCAM SCIENCE COMMUNITY DISCUSSION AT DPS

The NEOCam Science Team invites the planetary science community to join us for a discussion of NEOCam at the 50th DPS meeting in Knoxville. We will present an overview of the mission concept, including anticipated bandpasses, survey strategy, and data products, as well as discuss some of the avenues of investigation that NEOCam would enable. The discussion will consist of two one-hour blocks with ample time for questions, so attendees may come and go as their

schedule dictates. All members of the science community, especially early career researchers and members of historically under-represented groups, are encouraged to attend to learn more about the project.

Date: Thursday, Oct 25 2018

Time: 3:00-5:00 pm

Location: Room 200D

Questions? Contact Joe Masiero (joseph.masiero@jpl.nasa.gov [12])

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LSST SOLAR SYSTEM HACKATHON AT DPS

Thursday October 25, 2018 4:00-7:30 pm
Room 200 B-C (Knoxville Convention Center), 50th DPS meeting, Knoxville, TN

Open to all DPS attendees

Organizers: Meg Schwamb (Gemini Observatory) & David Trilling (NAU)

The main goal of the Large Synoptic Survey Telescope (LSST)

[Solar System Science Collaboration \(SSSC\)](#) [13] is to facilitate the efforts of the planetary community to study the planets and small body populations residing within our Solar System using LSST data. Over its 10 year lifespan, the LSST will observe and catalog over 5 million Main Belt asteroids, almost 300,000 Jupiter Trojans, over 100,000 NEOs, over 40,000 KBOs, tens of interstellar objects, and over 10,000 comets. To prepare for future survey cadence decisions and ensure that interesting and novel Solar System science is achievable with

LSST, the SSSC is organizing a Hackathon at DPS. The aim is spend several hours working intensively on collaborative projects related to community preparations for when LSST turns on. Past Hack day or SSSC sprint experience is not required. Come ready with a project idea or join someone’s pitched project. Programming experience is not a requirement. This workshop is focused towards SSSC members, but any DPS attendee is welcome to attend. Please register at <https://goo.gl/forms/1RoZLOVO9cbtObU33> [14] to reserve a spot.

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FUTURE PLUTO AND KUIPER BELT MISSIONS: THE VIEW FROM 2018

Friday, 26 October | 12:00 pm – 1:30 pm

Room 301 B - DPS Conference Venue, Knoxville TN

Description:

The Kuiper Belt (KB) is a scientific treasure trove consisting of comets, planetesimals, and small planets like Pluto. Since its discovery in the early 1990s, the KB has yielded fundamental insights into planetary accretion, the migration of planets, and the population structure of our solar system—including the discovery that dwarf planets like Pluto are common there.

The exploration of Pluto by New Horizons in 2015, the first KB dwarf planet to be explored, revealed a richness of geological, atmospheric, satellite, and compositional diversity at Pluto that rivals planets like Mars. The flyby also revealed evidence for Pluto being an actively evolving world over many spatial and temporal scales including evidence for an interior ocean, active glaciers, dunes, tectonics, a wide variety of terrain ages, and a complex atmosphere. Those results, combined with the heterogeneous colors, surface

compositions, and satellite systems of other KB dwarf planets beg for an ongoing future in Kuiper Belt exploration.

In this workshop we will survey 2018 work on (i) a return to Pluto with an orbiter, (ii) Centaur missions to study KBOs, and (iii) flyby missions to other KB dwarf planets. We will review community and individual scientist work to motivate NASA to fund future studies leading to the next Decadal Survey.

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TRICK-OR-TREAT AND TELESCOPES

DPS is continuing its Trick-or-Treat and Telescopes Program. Put out your telescopes - or even binoculars - during trick-or-treat time on Halloween, in your own lawn or in a neighbor's lawn with better viewing (or more traffic). The following website gives advice and connections to resources. If you have any pictures of your event, please send them to [bonnie.buratti\(at\)jpl.nasa.gov](mailto:bonnie.buratti@jpl.nasa.gov) <https://dps.aas.org/education/trick-or-treat-and-telescopes> [15]

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WORKSHOP ON IN SITU EXPLORATION OF THE ICE GIANTS

Notice of upcoming workshop. Pre-registration is now open -

Please note that attendance is capped at 90, so please register early!

February 25-27, 2019, Laboratoire d'Astrophysique de Marseille, France

Meeting URL : <https://ice-giant-workshop.lam.fr> [16]

Abstract submission deadline: December 31, 2018

Early registration deadline: January 31, 2018

Maximum number of participants: 90

We are pleased to announce a workshop addressing scientific and technological topics relevant to the in situ exploration of giant planet atmospheres, including

scientific questions, how to achieve them, and technological challenges. In the spirit of the Cassini-Huygens mission legacy, the workshop will also focus on potential mission concepts and international cooperation, with an emphasis on probe studies of the ice giants in the framework of future NASA-ESA collaborations. The Workshop on In Situ Exploration of the Ice Giants will take place at Laboratoire d'Astrophysique de Marseille (<https://www.lam.fr/> [17]) in a three-day science program comprising themed sessions, and featuring a mixture of invited reviews, invited and contributed talks, and posters. The workshop will cover topics ranging from the link between the formation conditions of the ice giant planets and atmospheric composition, measurement techniques, instrumentation, and technologies, and mission concepts. Invited speakers will include international experts in the origin, formation, and evolution of giant planets, giant planet atmospheres, instrumentation for in situ measurements of atmospheres, entry and descent probes and their technologies, future technology needs and development, and what the ice giants can tell us about exoplanetary systems.

Abstract submissions for posters and for talks are encouraged, although the number of talks available is limited in order to keep the workshop to three days. All contributions should be related to science, measurements, or technologies for in situ exploration of the ice giants. Please register early, as space is limited to no more than 90 participants! The possibility of publishing workshop papers in a peer review journal is being explored.

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JOBS, POSITIONS, OPPORTUNITIES

A) ASSISTANT TEACHING PROFESSOR IN PHYSICS (MULTIPLE POSITIONS)

The Department of Physics and Applied Physics at the University of Massachusetts Lowell (UML) invites applications for a number of teaching faculty positions to begin September 2019. We are especially interested in candidates who can complement and/or enhance existing instructional service programs in the department. The applicant would be expected to teach introductory-level high-enrollment Physics and Astronomy courses. The successful candidate should have a strong commitment to teaching at both the undergraduate and graduate levels with skills that complete and enhance the department's growing base of full-time faculty. Additional duties would include coordination of the graduate teaching assistants leading the laboratory component of these high-enrollment lecture courses.

Minimum Qualifications (Required):

- Ph.D. in Physics or related field (must have Ph.D. by the time of appointment)
- Demonstrated teaching ability in physics and excellent communication skills-Ability to work effectively with diverse groups

Special Instructions to Applicants:

Please include a CV, cover letter, teaching statement/philosophy, evidence of teaching and teaching evaluations with your application. Names and contact information for three references will be required at the time of application.

To apply, visit the URL:

<http://explorejobs.uml.edu/lowell/en-us/job/495957/assistant-teaching-professor-in-physics-multiple-positions> [18]

B) NASA HUBBLE FELLOWSHIP PROGRAM (NHFP)

On behalf of the NASA Astrophysics Division, the Space Telescope Science Institute (STScI) announces the second annual call for applications for postdoctoral fellowships under the NASA Hubble Fellowship Program (NHFP) #02904, to begin in the Fall of 2019.

The Announcement of Opportunity, which includes detailed program policies and application instructions, is available at the website: <http://nhfp.stsci.edu> [19]. The application submission page will be open today until November 1, 2018. Please share this employment announcement with your friends, networking groups, mailing lists, and social connections using this link.

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Send submissions to:

Anne Verbiscer, DPS Secretary (dpssec@aaas.org [20])

You are receiving this email because you are a DPS member.

To unsubscribe or update your information, please send your request to privacy@aaas.org [21]. The more general AAS privacy policy is available online at <https://aas.org/about/policies/privacy-policy> [22].

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- [2] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=DemGbzUTctbLYdVEa1U1V55wSdxza8BontOVEPTPE9mbbg-_gTbWCA..&URL=mailto%3abuxner%40psi.edu
- [3] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=JdBUwgkicSzomAtZT2-1L_5ihT0MdrnnPSmFZOgT7cubbg-_gTbWCA..&URL=mailto%3aksinger%40boulder.swri.edu
- [4] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=_zYzMvAEKQ5-4zp-lwxVetL4GxHvRCa_qDU_fkjFqaWbbg-_gTbWCA..&URL=mailto%3ayvonne.pendleton%40nasa.gov
- [5] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=E63bWP73VnwZtKKOoVIYatFP5Od9Qe3he3q57EsaCG2bbg-_gTbWCA..&URL=https%3a%2f%2fdps.aas.org%2fleadership%2fnominating
- [6] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=wob22v9Y35RUK9yOCXa5-ZYq7SSOhMwMW5DIktydcBSbbg-_gTbWCA..&URL=mailto%3afachreddin.tabataba-vakili%40jpl.nasa.gov
- [7] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=w5f1ti8jSMQWT774bN9nNlWoTozhFm4BMDXko7bdqibbg-_gTbWCA..&URL=mailto%3aGlenn.S.Orton%40jpl.nasa.gov
- [8] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=W133dh8ZPkm8AjrTNradN0URxwOS-SIV_aA0eA5pvA6bbg-_gTbWCA..&URL=mailto%3amschwamb.astro%40gmail.com
- [9] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=4Xdga4aPOQCxxHwajDpP66acenHeIF_eEPNQHl329y6bbg-_gTbWCA..&URL=mailto%3aDavid.Trilling%40nau.edu
- [10] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=j7-FM9b-gLD6YPH4LyJ0kHwK0B7QOsdOn8WRCdi33oubbg-_gTbWCA..&URL=mailto%3aella.m.sciammaobrien%40nasa.gov
- [11] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=-7ser8JAKCUrlqFhx_4tptyUehEbncjoP1YXId2wwbRRObbg-_gTbWCA..&URL=mailto%3astefanie.n.milam%40nasa.gov
- [12] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=B37xeBx1RtNOFwfvblRPxc7W4H82KgOZDpyBrFEoxmabbg-_gTbWCA..&URL=mailto%3ajoseph.masiero%40jpl.nasa.gov
- [13] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=PTtus6YBR6rC5lQXAJagX-b5j3PZPLROD4ux7GwdUN-bbg-_gTbWCA..&URL=http%3a%2f%2fwww.lsstssc.org
- [14] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=q965rBA97ODX1P517DgYU81lsR9AiGFQCBT-aZB-60Gbbg-_gTbWCA..&URL=https%3a%2f%2fgoo.gl%2fforms%2f1RoZLOVQ9cbtQbU33
- [15] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=698vjHjs03ghpKZO--D9R-RDOh5_Tl3CLW9gLMk8i1mbbg-_gTbWCA..&URL=https%3a%2f%2fdps.aas.org%2feducation%2ftrick-or-treat-and-telescopes
- [16] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=uR3BOPtS6TfhMDyRZh3P_0-MYvUIV1S5tYAdgX_astKbbg-_gTbWCA..&URL=https%3a%2f%2fice-giant-workshop.lam.fr
- [17] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=vu3lc3myEFAo7FITqyi2AnbncyY646PyrfsJkDFTZNebbg-_gTbWCA..&URL=https%3a%2f%2fwww.lam.fr%2f
- [18] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=KeWwHAfreGnW4Hrunjp8-EVdkfGDO-dlsgHXihLcz92bbg-_gTbWCA..&URL=http%3a%2f%2fexplorejobs.uml.edu%2flowell%2fen-us%2fjob%2f495957%2fassistant-teaching-professor-in-physics-multiple-positions
- [19] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=bAbXqCoTz9pYzvQByVQuXT8EAUAVR1qApPchtmgVNRqbbg-_gTbWCA..&URL=http%3a%2f%2fnhfp.stsci.edu
- [20] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=5gLuUpxFnBaAaMeNjmgruWbW49cLcpsVlfMYC4Y3GaCbbg-_gTbWCA..&URL=mailto%3adpssec%40aas.org
- [21] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=ng0AWgOAeJjSQlCajFktv8Cw3LOlZX5AiXoF91shL6ubbg-_gTbWCA..&URL=mailto%3aprivacy%40aas.org
- [22] https://mail02.ndc.nasa.gov/OWA/redir.aspx?C=unX1zOPqghNYXbc3LcNc6-wTC9kv6MSrDH7fcam5Lhybbg-_gTbWCA..&URL=https%3a%2f%2faas.org%2fabout%2fpolicies%2fprivacy-policy