

## Newsletter 13-6

Issue 13-6, March 1, 2013

+-----CONTENTS-----+

- 1) IN MEMORIAM: DAVID S. MCKAY
- 2) ANNOUNCING THE 45TH ANNUAL MEETING OF THE DIVISION FOR PLANETARY SCIENCES
- 3) COMET ISON OBSERVING CAMPAIGN ANNOUNCEMENT
- 4) CALL FOR PROPOSALS FOR THE NASA INFRARED TELESCOPE FACILITY (IRTF)
- 5) REMINDER : 2013 ONLINE MEMBERSHIP RENEWALS
- 6) ROSES-13 THE ORIGINS OF SOLAR SYSTEMS PROGRAM
- 7) JOB/POSITION OPPORTUNITIES
- 8) UPCOMING MEETINGS

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### IN MEMORIAM: DAVID S. MCKAY

David S. McKay, Chief Scientist for Astrobiology at the NASA Johnson Space Center, passed away on February 20, 2013. During the Apollo program, McKay gave the first men to walk on the Moon training in geology. In recent years, McKay was perhaps best known for being the first author of a scientific paper postulating past life on Mars on the basis of evidence in martian meteorite ALH 84001. This paper has become one of the most heavily cited papers in planetary science. The NASA Astrobiology Institute was founded partially as a result of community interest in this paper and related topics.

As a graduate student in geology at Rice University, McKay was present at John F. Kennedy's speech in 1962 announcing the goal of landing a man on the Moon within the decade. Kennedy's speech inspired his interest in helping to train the Apollo astronauts in geology. He was a chief trainer for Neil Armstrong and Buzz Aldrin during their last geology field trip in West Texas. On July 20, 1969, McKay was the only geologist present in the Apollo Mission Control Room in Houston when Armstrong and Aldrin walked on the Moon.

McKay studied lunar dust since the return of the first Apollo 11 samples in 1969, and has contributed over 200 publications on this topic. As a result of this effort, McKay contributed major discoveries, including the source of vapor deposition on lunar soil grains, the formation of nanophase iron globules on lunar soil grains, the processes on the Moon that contribute to grain size distribution, and insight into space weathering and the chemically activated nature of in situ lunar dust.

McKay was honored by the International Astronomical Union (IAU) by having an asteroid named after him in 2002. His IAU citation mentions his years of work on lunar samples as well as the positive effect his research on martian meteorites has had on planetary research. McKay was also a recipient of the Outstanding Graduate Student Award at Rice University, the NASA Superior Achievement Award for Lunar Science Contributions; the Laurels Award from Aviation Week and Space Technology, the NASA Exceptional Scientific Achievement Medal, and the Distinguished Texas Scientist Award from the Texas Academy of Science.

McKay was with NASA for more than 47 years, and made substantial contributions to science during his career. He will be missed.

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### ANNOUNCING THE 45TH ANNUAL MEETING OF THE DIVISION FOR PLANETARY SCIENCES

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Denver, Colorado, 6-11 October 2013 at the Sheraton Denver Downtown Hotel

Dear DPS members, we invite you to attend the 45th Annual DPS meeting. Please note these important dates:

- 18 July 2013 :  
45th DPS Regular Abstract Submission Deadline - 9:00pm ET
- 23 July 2013 :  
45th DPS Early Registration Deadline
- 2 September 2013 :  
45th DPS Workshop Proposals Due
- 3 September 2013 :  
45th DPS Hotel Reservations Deadline
- 3 September 2013 :  
45th DPS Late Abstract Submission Deadline - 9:00pm ET

10 Reasons to Attend the 45th Meeting of DPS in Denver, Colorado!

- Hear the latest science from planetary missions including MESSENGER at Mercury, Cassini at Saturn, Curiosity at Mars and Kepler
- Present your latest and greatest research results in planetary science
- Meet colleagues and discuss planetary science (and go on, admit it--gossip)
- See the latest widgets and wonders on display from the space industry in the Exhibit Hall
- Participate in workshops on future missions, grant writing, career development, and collaborations with amateur astronomers
- Participate in education and public outreach activities, including a live event during the Juno flyby of Earth
- Visit the Denver Museum of Nature and Science to experience their Space Odyssey
- See a Special exhibition of space art and enjoy an evening with artists in the Denver gallery district
- Explore the Rocky Mountains: hike, bike, or see the elk bugling in the rugged hills to the west of town
- Drink craft beer brewed in Colorado's 187 breweries

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COMET ISON OBSERVING CAMPAIGN ANNOUNCEMENT

We announce the beginning of a new NASA Observing Campaign to study comet C/2012 S1 (ISON). This comet, first discovered on September 21, 2012 by Vitali Nevski and Artyom Novichonok of the International Scientific Optical Network (ISON) near Kislovodsk, Russia. It is expected to be brighter than C/1995 O1 Hale-Bopp was in the mid-1990's and has the potential to be the brightest comet (or Great Comet) observed in the last 50 years, if it survives its passage around the sun. The orbit of the comet is being established and detailed orbital information can be found at the JPL Horizons website. Trending optical lightcurves and predictive sky charts can be found at Aerith.com

Although the expectations for the 2013/2014 apparition of comet ISON are still developing, at this time measurements leading to increased understanding of this dynamically new Oort cloud comet's orbit, its nucleus size, density, strength, and rotation rate, its composition, its coma and tail morphology, and its evolution over time as it passes through the inner solar system are highly encouraged. The comet's potential high rate of outgassing activity will facilitate sensitive measurements of its molecular and isotopic abundances and temperatures; and determination of how its production rates vary with heliocentric distance. Measurements of rare and low abundance species and isotopic ratios should be possible. The comet will also be extremely close to the Sun by perihelion, flying within 1.7 R<sub>sun</sub> of the solar surface, which will provide an excellent opportunity to study Sun-comet interactions.

NASA is leading an effort to observe and study this comet, providing the use of its available resources:

Keck, IRTF, and its fleet of currently operating spacecraft. We encourage all observing proposals to observe the comet using NASA facilities, especially ones focusing on the comet's abundances, activity, and evolution along its orbit, as well as those from observatories around the world.

In order to facilitate the maximal observing of ISON, we are planning on holding a 2- day pre-encounter workshop at JHU/APL on 1-2 August 2013. All interested parties are welcome to attend and discuss their observing plans and needs. We also plan on having a post-encounter workshop in the March - June 2014 timeframe.

For more information about observing opportunities for Comet ISON, please visit the Campaign webpage at <http://sungrazer.nrl.navy.mil/index.php?p=ison> [1] or any of the team members: [karl.battams@nrl.navy.mil](mailto:karl.battams@nrl.navy.mil) [2]; [knight@lowell.edu](mailto:knight@lowell.edu) [3]; [yrf@me.com](mailto:yrf@me.com) [4]; [msk@astro.umd.edu](mailto:msk@astro.umd.edu) [5]; [Ron.Vervack@jhuapl.edu](mailto:Ron.Vervack@jhuapl.edu) [6]; [michael.a.disanti@nasa.gov](mailto:michael.a.disanti@nasa.gov) [7]; [padma@spacescience.org](mailto:padma@spacescience.org) [8]

Dr. Carey M. Lisse  
Senior Research Scientist  
Johns Hopkins University Applied Physics Laboratory

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CALL FOR PROPOSALS FOR THE NASA INFRARED TELESCOPE FACILITY (IRTF)

DEADLINE: 01 April 2013

NASA Infrared Telescope Facility Observing Proposals. The due date for the 2013B semester (August 1, 2013 to January 31, 2014) is Monday, April 1, 2013. See our online submission form. Information on available facility and visitor instruments can be found at: <http://irtfweb.ifa.hawaii.edu/Facility/> [9]. Remote observing is available with SpeX, NSFCAM, CSHELL, and MORIS. NSFCAM has been upgraded with a new array; please see the instrument webpage for more information.

Important notice: SpeX will be available for the 2013B semester. We now anticipate that SpeX will be taken off line on Feb. 01, 2014, and will be unavailable for the entire 2014A semester (Feb. 1, 2014 - July 31, 2014). This is necessary to upgrade SpeX with new arrays and array controllers. We strongly recommend observers to plan their observing accordingly. We also expect to accommodate key projects requiring large amounts of observing time using CSHELL, NSFCAM, and visitor instruments during semester 2014A. The delay of the SpeX downtime is due to engineering resources that were diverted to fix the dome drive system.

C/2012 S1 (ISON) observing campaign: We encourage proposals to observe comet C/2012 S1 (ISON), a recently discovered Oort Cloud comet with perihelion passage on Nov. 28, 2013. It is expected to become extremely bright with a significant amount of daytime availability while the comet is brightest (see link to additional information below). Approximately 170 hours of observing time will be set aside for this campaign. All data obtained will be made public (within one week), and observing logs will be requested for archiving. We encourage observing groups to form collaborations to enhance the scientific return from the observations. When submitting a proposal, please note clearly that the proposal is submitted for the campaign. Groups with visitor instruments can participate in the campaign so long as the data and observing logs are allowed to be public.

Additional information on comet ISON observing can be downloaded at:  
[https://dl.dropbox.com/u/12111886/additional\\_information\\_for\\_comet\\_ISON.pdf](https://dl.dropbox.com/u/12111886/additional_information_for_comet_ISON.pdf) [10]

To keep our bibliography up to date and to ensure future funding of the IRTF: please check for your latest publications at:

<http://irtfweb.ifa.hawaii.edu/research/biblio/Refereed.html> [11]

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[http://irtfweb.ifa.hawaii.edu/research/biblio/Non\\_Refereed.html](http://irtfweb.ifa.hawaii.edu/research/biblio/Non_Refereed.html) [12]

and send to any missing references William Walters ([walters@ifa.hawaii.edu](mailto:walters@ifa.hawaii.edu) [13]).

We appreciate an acknowledgement in your papers to the IRTF and the instrument used.

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REMINDER : 2013 ONLINE MEMBERSHIP RENEWALS

If you have not paid your 2013 membership dues online at <https://members.aas.org/> [14] please renew now by logging in to your membership record (today !). By renewing online and not receiving a paper renewal, you will help your Society save enormous costs.

Also, please take a moment to update your personal DPS member file.

Thank you for your attention.

Send general replies to [aas@aas.org](mailto:aas@aas.org) [15].

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ROSES-13 THE ORIGINS OF SOLAR SYSTEMS PROGRAM

The Origins of Solar Systems program solicits basic research proposals to conduct scientific investigations related to understanding the formation and early evolution of planetary systems and to provide the fundamental research and analysis necessary to detect and characterize other planetary systems. These investigations may involve analytical and numerical modeling, laboratory research, and observational studies in the following areas: star formation and the relationship to planetary system formation, solar nebula processes, accumulation and dynamical evolution, analysis of primitive materials, and the detection and characterization of other planetary systems.

A number of changes have been made to Appendix E.3, The Origins of Solar Systems Program. The due dates remain unchanged:

NOIs due March 22, 2013

Proposals due May 23, 2013

More information on NNH13ZDA001N at:

<http://nasascience.nasa.gov/researchers/sara/grant-solicitations/roses-2013> [16]

Questions:

Planetary Science Division

[HQ-OSS@mail.nasa.gov](mailto:HQ-OSS@mail.nasa.gov) [17]

Christina Richey (202) 358-2206

Max Bernstein (202) 358-0879

Astrophysics Division

Larry Petro

[larry.d.petro@nasa.gov](mailto:larry.d.petro@nasa.gov) [18]; (202) 358-4424

[Edited for length.]

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JOB/POSITION OPPORTUNITIES

[Please visit the DPS web site at : <http://dps.aas.org/jobs> [19]

for more information and also consider posting a job by filling out the jobs submission form at:

<http://dps.aas.org/node/add/job> [20]

You can send any comments, questions, or suggestions to the DPS Jobs Czar at: [dpsjobs@aas.org](mailto:dpsjobs@aas.org) [21]]

**A) PHD POSITION IN METEORITE IMPACT CRATERING STUDIES - UNIVERSITY OF VIENNA**

A PhD position within the doctoral school I-1045 "Planetology: From Asteroids to Impact Craters" is vacant at the Department of Lithospheric Research, University of Vienna, Vienna, Austria. The position is within the area of impact crater studies and begins in the Spring of 2013, for 3 years. Details of the doctoral school are available at: <http://lithosphere.univie.ac.at/ik-planetology/> [22]. The topic is meteorite impact crater research; specifically in mineralogical, petrographical, and geochemical studies of impactites and related rocks. Both laboratory and field work is anticipated. The participation in several courses is necessary. Excellent knowledge of English is necessary; basic knowledge of German is an advantage. For further details or inquiries, contact Prof. Koeberl ([christian.koeberl@univie.ac.at](mailto:christian.koeberl@univie.ac.at) [23]).

For more information on the opening, and application procedures, see:  
<https://univis.univie.ac.at/ausschreibungstellensuche/> [24] (go to opening no. 3692).

**Requirements:**

- Completed diploma or master degree in earth sciences or a closely related discipline.
- Expertise in petrography, mineralogy, and geochemistry

Applications including a letter of motivation (German or English) should be sent via Job Center to the University of Vienna ( <http://jobcenter.univie.ac.at> [25]) no later than 20.02.2013 and be referenced to the identification number 3692. Copies of applications please to [christian.koeberl@univie.ac.at](mailto:christian.koeberl@univie.ac.at) [23].

**B) FACULTY POSITION IN SPACE PHYSICS: UNIVERSITY OF CALIFORNIA, LOS ANGELES**

The Department of Earth and Space Sciences seeks candidates for a tenured, or tenure track faculty appointment in Space Physics. Applicants with a PhD from all disciplines are invited, but preference will be given to candidates with a broad background in the physics of flowing magnetized plasmas in the heliosphere. The successful candidate is expected to strengthen the department's role in ongoing and future space missions through scientific leadership in theory, modeling and/or observations, and through the department's undergraduate/ graduate student instruction and mentorship. Applications for all levels will be considered. Appointment and salary will be commensurate with experience and qualifications. Please include curriculum vitae, a statement of research and teaching interests, a complete list of publications, names and email addresses of three referees, electronic or paper copies of up to five of your most significant publications, plus a short cover letter addressing your experience.

All applications received on or before April 6, 2013 will be considered. Please email your application to [space2013@ess.ucla.edu](mailto:space2013@ess.ucla.edu) [26], reference job: 0995-1213-01. An optional hardcopy of materials may be mailed to:

Space Physics Search Committee  
UCLA Earth and Space Sciences  
595 Charles Young Drive East  
Los Angeles, CA 90095-1567

[Edited for length - From PEN]

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UPCOMING MEETINGS

See also: PLANETARY MEETING CALENDAR ADDITIONS

Posted at <http://planetarynews.org/meetings.html> [27]

**A) HABITABLE WORLDS ACROSS SPACE AND TIME**

The 2013 STScI Spring Symposium  
April 29 - May 2, 2013

Abstract submission deadline: March 15, 2013

On-line registration deadline: March 29, 2013

Within a matter of years, humanity will know for the first time the frequency of terrestrial planets in orbit around other stars. In this four-day symposium, scientists from diverse fields will discuss the formation and long-term evolution of terrestrial bodies throughout the various phases of stellar and Galactic evolution. A particular focus will be in how the specific conditions and challenges for habitability on Earth extend to other bodies in the Solar System and beyond. The existence of these overlooked environments may provide motivation for novel astronomical observations with existing and next generation ground and space-based observatories.

Registration for this Symposium is now open and there are a limited number of spots. Please go to:

<http://www.stsci.edu/institute/conference/habitable-worlds> [28]

and click on the "Register" link. We also invite contributions in the form of talks and posters, which can be submitted during the registration process or after one has registered. Only a small number of contributed talks are available.

**B) INTERNATIONAL SYMPOSIUM: "THE SCIENCE OF MARCOPOLO-R"**

ESA/ESTEC, June 3-4, 2013

<http://www.sciops.esa.int/index.php?project=CONF2013&page=MARCOPOLO-R> [29]

We hope you will be interested in participating to this important International Symposium on the MarcoPolo-R sample return space mission under study at ESA (next selection phase at the end of 2013), and we thank you for your continuous support and interest in this mission.

Patrick Michel

On behalf of the MP-R Science Study Team.

**C) IWEA, THE 1ST INTERNATIONAL WORKSHOP ON EDUCATION IN ASTROBIOLOGY WILL**

June 6-9th in Höör, Sweden

The meeting aims to bring together scientists and teachers engaged in astrobiology education on universities and other training institutions to:

- discuss new teaching and assessment forms in astrobiology
- foster international cooperation in astrobiology teaching
- give the attendants a thorough overview of the field

Training students in such a multidisciplinary subject implies a lot of challenges and pitfalls, both in the set-up and organization of the course, choice of lecturers and literature, grading of students as well as the necessity of new teaching methods. The conference will not only serve as forum for exchange of ideas and experiences, but also as a starting point for a long-term international collaboration in astrobiology teaching.

The meeting venue is held at the very pleasant Åkersberg Stiftsgård which is only a 50 min direct train ride from Copenhagen International Airport. For further information please go to:

<http://www.nordicastrobiology.net/IWEA/> [30]

This workshop will be followed (10-15 June, Höör, Sweden) by the 3rd Nordic Astrobiology Conference "Isotopes as diagnostic tools in astronomy, geology and biology":

<http://www.nordicastrobiology.net/Isotopes2013/General.html> [31]

Muriel Gargaud  
Présidente de la Société Française d'Exobiologie

D) 10TH INTERNATIONAL PLANETARY PROBE WORKSHOP  
17 - 21 June, 2013,  
San Jose State University, San Jose, California  
Short Course: Entry, Descent, and Landing Systems 15 - 16 June 2013

<http://ippw10.com> [32]

ABSTRACT DEADLINE : 15 MARCH 2013

Join us for the 10 International Planetary Probe Workshop (IPPW-10), hosted by San Jose State University, June 17 - 21, 2013. The 10th Probe Workshop brings together engineers, technologists, scientists, mission designers, space agency leaders, and students from around the world for a week-long collaboration focused on exploration of Solar System atmospheres and surfaces using atmospheric entry and descent probes and aerial vehicles. Preceding the workshop, a 2-day short course on Entry, Descent, and Landing (EDL) Systems is offered on June 15-16.

Student Scholarship Application Deadline : Friday, 15 March 2013  
Al Seiff Award Nominations Deadline : Friday, 15 March 2013

E) AGU CHAPMAN CONFERENCE ON CROSSING THE BOUNDARIES IN PLANETARY ATMOSPHERES:  
FROM EARTH TO EXOPLANETS  
June 24-28, 2013  
Annapolis, Maryland

Abstract submission ends 25 February at 23:59 EDT/3:59+1 GMT.

We welcome submissions of posters or contributed talks (slots limited) that address the current state of knowledge of terrestrial and planetary climate systems, including their atmospheric chemistry, composition, and dynamics, plus atmospheric modeling, observational techniques, and data analysis methods. Preference will be given to those with an emphasis on cross-disciplinary science and techniques that can be applied to objects as diverse as the Earth, planets in our solar system, and exoplanets. You do not need to be an AGU member to post an abstract. The preliminary program will be posted shortly, and we expect registration to open soon. To receive all future notices, you may also join the conference mailing list from our webpage, General Information link:

<http://chapman.agu.org/planetaryatmospheres/> [33]

Co-conveners: Amy Simon-Miller and Anthony Del Genio

F) COMETS AS TRACERS OF SOLAR SYSTEM FORMATION AND EVOLUTION  
July 9-11, 2013,  
Toulouse, France

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Abstract submission deadline: March 31, 2013

On-line registration deadline: April 30, 2013

<http://icw.space.swri.edu> [34]

**G) THE PLUTO SYSTEM ON THE EVE OF EXPLORATION BY NEW HORIZONS:  
PERSPECTIVES AND PREDICTIONS**

Meeting Dates: July 22-26

Abstract Deadline: April 15

Early Bird Registration Deadline: May 31

The meeting is being held at The Johns Hopkins University Applied Physics Laboratory in Laurel, Maryland, USA.

Both registration and abstract submission are now open for the Pluto-2013 conference at:

<http://plutoscience.jhuapl.edu> [35]

Abstracts are solicited on all facets of the Pluto system—including origins, interiors, surfaces, compositions, atmospheres, satellites, plasma, and context in the Kuiper Belt.

Special issues of both Icarus and JGR-Planets are planned to publish new results and prediction papers in 2014.

Alan Stern (Program Committee Chair)

Hal Weaver (Local Organizing Committee Chair)

**H) 4th WORKSHOP "PLANET MARS"**

The organizers welcome you at the 4th workshop "Planet Mars", to be held in les Houches (France), on 20-25 October 2013. The goals of the workshop are to integrate the main results of both the recent Earth-based observations and the missions to Mars into a new global picture of Mars evolution.

With the same spirit of the previous workshops, discussions among scientists of different disciplines will be encouraged and it is foreseen that they will help refine the scientific goals of the future missions to Mars.

This workshop is an opportunity for the young scientists to be updated on the most recent results and to be trained in some specific data processing techniques. In addition to the previous editions, a specific session will be devoted to comparative analyses of Mars, Venus, the Earth and Titan in all their aspects (internal structure; atmospheric composition and photochemistry; climatology; this session will take advantage of recent results acquired, in particular, by the Venus Express and Cassini missions, as well as recent developments on global climate models of Venus and Titan.

More at: <http://www.sciops.esa.int/mars4> [36]

Deadline for registration: 31 May 2013

Olivier Witasse

European Space Agency

ESTEC

Noordwijk, The Netherlands

[owitasse@rssd.esa.int](mailto:owitasse@rssd.esa.int) [37]

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Send submissions to:

Athena Coustenis, DPS Secretary ([dpssec@aas.org](mailto:dpssec@aas.org)) [38]

To unsubscribe visit <http://aas.org/unsubscribe> [39] or email [unsubscribe@aas.org](mailto:unsubscribe@aas.org) [40].

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To change your address email [address@aas.org](mailto:address@aas.org) [41].

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## Footer

- [Reports](#)
- [Photos](#)
- [History](#)
- [Bylaws](#)
- [Giving](#)

**Source URL:** <https://dps.aas.org/newsletters/13-6#comment-0>

## Links

- [1] <http://sungrazer.nrl.navy.mil/index.php?p=ison>
- [2] <mailto:karl.battams@nrl.navy.mil>
- [3] <mailto:knight@lowell.edu>
- [4] <mailto:yrf@me.com>
- [5] <mailto:msk@astro.umd.edu>
- [6] <mailto:Ron.Vervack@jhuapl.edu>
- [7] <mailto:michael.a.disanti@nasa.gov>
- [8] <mailto:padma@space-science.org>
- [9] <http://irtfweb.ifa.hawaii.edu/Facility/>
- [10] [https://dl.dropbox.com/u/12111886/additional\\_information\\_for\\_comet\\_ISON.pdf](https://dl.dropbox.com/u/12111886/additional_information_for_comet_ISON.pdf)
- [11] <http://irtfweb.ifa.hawaii.edu/research/biblio/Refereed.html>
- [12] [http://irtfweb.ifa.hawaii.edu/research/biblio/Non\\_Refereed.html](http://irtfweb.ifa.hawaii.edu/research/biblio/Non_Refereed.html)
- [13] <mailto:walters@ifa.hawaii.edu>
- [14] <https://members.aas.org/>
- [15] <mailto:aas@aas.org>
- [16] <http://nasascience.nasa.gov/researchers/sara/grant-solicitations/roses-2013>
- [17] <mailto:HQ-OSS@mail.nasa.gov>
- [18] <mailto:larry.d.petro@nasa.gov>
- [19] <http://dps.aas.org/jobs>
- [20] <http://dps.aas.org/node/add/job>
- [21] <mailto:dpsjobs@aas.org>
- [22] <http://lithosphere.univie.ac.at/ik-planetology/>
- [23] <mailto:christian.koeberl@univie.ac.at>
- [24] <https://univis.univie.ac.at/ausschreibungstellensuche/>



- [25] <http://jobcenter.univie.ac.at>
- [26] <mailto:space2013@ess.ucla.edu>
- [27] <http://planetarynews.org/meetings.html>
- [28] <http://www.stsci.edu/institute/conference/habitable-worlds>
- [29] <http://www.sciops.esa.int/index.php?project=CONF2013&page=MARCOPOLO-R>
- [30] <http://www.nordicastrobiology.net/IWEA/>
- [31] <http://www.nordicastrobiology.net/Isotopes2013/General.html>
- [32] <http://ippw10.com>
- [33] <http://chapman.agu.org/planetaryatmospheres/>
- [34] <http://icw.space.swri.edu>
- [35] <http://plutoscience.jhuapl.edu>
- [36] <http://www.sciops.esa.int/mars4>
- [37] <mailto:owitasse@rssd.esa.int>
- [38] <mailto:dpssec@aas.org>
- [39] <http://aas.org/unsubscribe>
- [40] <mailto:unsubscribe@aas.org>
- [41] <mailto:address@aas.org>
- [42] <mailto:athena.coustenis@obspm.fr>