

Solar Physics Division of the American Astronomical Society

Annual Report: 2016-2017

Dana Longcope, SPD Chair

2016-May-12

The Solar Physics Division of the American Astronomical Society works to advance the study of the Sun and to promote the coordination of solar research with other branches of science.

The SPD has 440 active members (as of May 8, 2017), of which 55 are Division Affiliates from other scientific organizations. This total has decreased by 2.2% from last year's. The numbers within various categories of membership (full, 260; associate, 20; affiliate 55; junior, 21; emeritus, 84) have changed, but the overall total has remained constant.

The SPD was led during the 2016-2017 interval by chair Dana Longcope, and vice-chair Holly Gilbert. The other officers are Aimee Norton (secretary) and David McKenzie, (treasurer), and committee members are Steven Bradshaw, Mark Cheung, Gordon Emslie, Lindsay Glesener, Leon Golub and Sabrina Savage. The committee last met in person in Boulder, CO on May 30, 2016. It has conducted business over e-mail since then. The election for vacancies in the committee will begin on May 15, 2017.

The 2016 SPD meeting was a stand-alone meeting held in Boulder Colorado, May 31 – June 4, and hosted by the National Solar Observatory (NSO) at its new headquarters location on the campus of the University of Colorado. There were 309 registered participants. 295 abstracts were received, 166 of which requested orals (i.e., 56%). Approximately half of the requests for oral session were accommodated. Of the 129 poster requests, 38 asked for additional e-posters. All e-poster requests were granted. Because Monday was a holiday (Memorial Day), the meeting was kept to 4 days (with only a partial morning session on the 1st day). Attempts were made to prevent closely related sessions from running in parallel.

The 2017 SPD meeting will be a stand-alone meeting held in Portland OR, Aug. 21-26. Portland is outside the eclipse path, but a 1-hour bus trip gets one to Salem, OR which has among the highest chances of clear skies on the entire path.

The SPD bestows two annual scientific prizes to deserving members. The 2017 Hale Prize will be awarded to Dr. Manfred Schussler “for his contributions to the theory of the solar dynamo, to understanding the dynamics of buoyant convection-zone magnetic flux tubes, to modeling the structure and dynamics of solar surface magnetic fields, and to the education and training of young solar physicists..” The 2017 Karen Harvey Prize, for younger investigators, will be awarded to Dr. Chun Ming (Mark) Cheung “for his numerical investigations of magnetic flux emergence in turbulent convection, for his studies of the dynamic corona via novel data inversion and data-driven modeling techniques, and for his mentoring of young researchers.”

Most of the work of the SPD is accomplished by committees. The SPD is grateful for their efforts. More detailed information about committees, activities, and history of the division can be found at the SPD’s website: <http://spd.aas.org>.

The Prize committee selects the recipients of the Hale and Harvey Prizes. Members of the committee are Mark Linton (chair), Doug Braun, Sarah Gibson, K.D. Leka, and Haimin Wang.

The Nominating Committee submits nominations to the SPD Secretary for vacancies in the positions of Officers and Committee-persons. The Nominating Committee ascertains the willingness of its nominees to serve if elected. It is currently chaired by Steven Cranmer and also includes Ed DeLuca and Sabrina Savage. They have submitted names and elections are currently under way to fill next year’s vacancies.

Popular writing awards are presented to authors of popular or semi-popular articles on the Sun or the effects of the Sun on the Earth’s environment. One award is typically made to a scientist author and another to a science writer/journalist. Eligible articles are reviewed, and winners are selected by the Public Writing Award committee, consisting of Monica Bobra (Chair), Angela DesJardins, Cooper Downs, Kelly Korreck.

The Studentship Committee, aided by Treasurer David McKenzie, continues to award travel scholarships to enable undergraduate and graduate students to attend the annual SPD meeting. This program is now in its 38th year, and has an impressive number of notable “alumni.” In 2016 the Committee made 12 awards to students with home universities ranging from US universities such as George Mason University and NJIT, to international institutions such as Aberystwyth University (Wales), Queens University (Northern Ireland) and Monash University (Australia).

The Studentship Committee also sponsors, with enormous help from the SPD membership, the annual Student Poster contest, which awards a cash prize, and recognition during the meeting, to the student with the best poster at the Annual Meeting.

Adopting a suggestion from the 2014 AAS leadership meeting, the SPD committee created an award to offset costs (up to \$400) of family care for members attending the annual SPD meeting. The award appears to be gaining visibility and there were three applications for the 2016 SPD meeting. All three were granted.

The Education and Public Outreach (EPO) committee is now chaired by Claire Raftery, with the support of Trae Winter, Mitzi Adams, Zoe Frank, and graduate student Juan Camillo Buitrago Casas. In the run up to the 2017 total eclipse, the committee has changed its focus to that of preparing and supporting SPD community members for public outreach and press opportunities around the eclipse. As such, the committee arranged for a 2-hour workshop/seminar to be held at the 2016 SPD meeting in Boulder that focused on science communication and speaking to the public. This workshop will be focused on simplifying messages, reducing the use of jargon, and speaking at an appropriate level for an audience. The workshop will target early career researchers and students, but will be open to any SPD member in attendance at the Boulder meeting.

The Public Policy Committee (PPC), consisting of A. Gordon Emslie (chair), Stephen Bradshaw, Nicole Duncan, Kelly Korreck, and Brian Welsch, involves itself in a variety of activities aimed at increasing awareness of, and ultimately funding for, research in Solar Physics and Heliophysics. The Chair liaised closely throughout this past year with Dr. Joel Parriott, Director of Public Policy in the AAS Office, and with members of the Advocacy Committee of the AGU Space Physics & Aeronomy Division. Members of the PPC are planning a visit to various congressional offices on June 26, 2017 to (a) maintain and build relationships with local representatives and senators from the local districts of the Committee Members, and (b) to encourage influential members of the House and Senate Appropriations and Budget Committees to support increased funding for Heliophysics research (within NASA, NSF, and other agencies).

Dr. Welsch engaged a number of younger SPD members in a letter-writing campaign to various NASA officials, emphasizing the long-term value of a robust program of solar physics research, ranging from space missions (including Explorer opportunities), sub-orbital programs, laboratory research and small grants programs, and urging those officials to ensure the vitality of our field, with its value to both science and society.

Dr. Korreck continued her lecture-series entitled “Space on the Hill”, co-sponsored by the Smithsonian Astrophysical Observatory and the AAS/SPD, aimed at elected members and staffers on Capitol Hill. The lecture series provides educational lectures on astronomical topics, and is explicitly devoted to education rather than advocacy. The first in this series, entitled “Cloudy with a chance of Solar Flare: How Space Weather Affects your Life”, was given in two separate sessions, on April 20, 2016. The lecture on May 17, 2016, was entitled "A Mission to Touch the Sun", and will feature Justin Kasper, from the University of Michigan.

The bill *Space Weather Research and Forecasting Act* (S.141) sponsored by Sen. Peters (D-MI), and co-sponsored by Sens. Booker (D-NJ), Gardiner (R-CO), Booker (D-NJ), Wicker (R-MS), and Nelson (D-FL), was passed by the US Senate on May 2, 2017. It has moved into the US House of Representatives. With the aid of the PPC Chair (Emslie) the SPD Chair (Longcope) and AAS President (Jones) sent a letter of appreciation to the bill’s sponsored and co-sponsors.

The SPD's electronic newsletter, SolarNews, is distributed semimonthly to the worldwide solar physics community. It provides the disciplines' premier global means for communicating news and information. Archives are available at <http://solarnews.nso.edu>. Its current subscriber list, 1189, is 10% larger than it was at this time last year. Since 2009, SolarNews has a direct news exchange with the UK Solar Physics newsletter. SolarNews is prepared and edited by the SPD secretary, Aimee Norton.