

The American Physical Society

The Division of Astrophysics

February 1997

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1997 April Meeting Invited Sessions

The April Meeting of the APS will be held in Washington, DC from April 18 to 21. The Division of Astrophysics is trying something new: a session of invited talks of speak their peers. Also included is a special session on the re

Invited Sessions: APS Division of Astrophysics April '97 Meeting Washington, DC

APS-AAAPT and CAM'97 General Meeting on 18-21 April 1997 Renaissance Hotel, 999 9th Street NW, Washington, DC, (across the street from the Convention Center)

XRAY TIMING

Organizer: Rick Rothschild

- Ron Remillard, MIT - Multifrequency Observations of Galactic Microquasars
- David Smith, UCB - RXTE Observations of Persistent Galactic Microquasars
- Tod Strohmeyer, GSFC - Observations of Millisecond X-Ray Variability from Accreting Neutron Stars

- Cole Miller, UChic - Theoretical Interpretation of KiloHertz QPO from LMXRBS

THE COSMIC-RAY CONNECTION

Organizer: Frank Jones

- Thomas Gaisser, Bartol - The Search for Origins of the Highest Energy Cosmic Rays
- Steven Stochaj, NMSU - Cosmic Rays: The Anti-matter Connection
- Luke Drury, Dublin IAS - Interstellar Dust and the Galactic Cosmic Rays
- Reuven Ramaty, GSFC - Li, Be, B Nucleosynthesis and Low Energy Cosmic Rays

SUPERNOVAE AND GIANT HII REGIONS

Organizer: James Higdon

- Schuyler Van Dyk, UCB - Supernovae in Giant HII Regions
- Christine Wilson, McMaster - Star formation in Giant HII Regions
- William Reach, UParis - Galactic Worms and Worm Ionized Medium
- Timothy Heckman, STSCI - Galactic Super Winds
- Luis Rodriguez, UNAM - Young Stars in Giant Molecular Clouds

ADVANCES IN ASTROPHYSICS

Organizer: Rich Lingenfelter, based on nominations from DAP members

- John Bahcall, IAS - Recent Highlights of Hubble Space Telescope Observations
- Volker Schonfelder, MPE - Gamma Ray Line Spectroscopy with COMPTEL
- Alan Boss, CIW - Extrasolar Planets
- Anthony Shoup, UCI - Milagrito: Progress toward a water Cherenkov VHE Gamma-ray Telescope

PRODUCTION AND OBSERVATIONS OF THE LIGHT ELEMENTS - JOINT DAP/DNP

Organizers: Wick Haxton / DNP Michael Smith

- Mark Leising, Clemson - Observations of Interstellar ^{26}Al , ^{22}Na , ^7Be and Other Radioactivity
- Corinne Charbonnel, Toulouse - The Solar ^7Li Problem
- Daniele Galli, OAA Firenze - The Problem of ^3He
- Hanns-Peter Trautvetter, UnivBochum - The E2 Contribution to the $^{12}\text{C}(\alpha, n)^{16}\text{O}$ Reaction

JOINT DAP/DPF

Organizers: George Fuller / DPF Howard Georgi

- William Louis, LANL - Laboratory Constraints on Neutrino Masses and Mixings
- David Wark, Oxford - Sudbury Neutrino Observatory
- Chung-Pei Ma, UPenn, - Status of Mixed Cold and Hot Dark Matter Models
- Yong-Zhong Qian, CIT - Can neutrino effects establish core collapse supernovae as the site of the r-process?

ADVANCES IN DETECTORS FOR ASTROPHYSICS - Joint DAP/IMSTG

Organizers: Dan McCammon/Robert Soulen

- Kent Irwin, NIST - Microcalorimeters for High Resolution X-Ray Spectroscopy
- Anthony Peacock, ESTEC - Superconducting Tunnel Junctions as Detectors for Ultraviolet, Optical & Near Infrared Astronomy
- Carl Stahle, GSFC - CdZnTe Detector Technology for New Science in Hard X-ray and Gamma Ray Astrophysics
- Michael Ressler, JPL - Demonstration of 10K Superconducting Electronics in an Infrared Imaging System

PLASMA PHYSICS IN SPACE, THE LAB, AND THE NUCLEUS - Joint DPP/DAP

Organizer: Bruce Remington

- Bruce Balick, UWash - Radiation Hydrodynamics Meets Nebular Evolution at the Hubble Space Telescope
- Gilbert Collins, LLNL - Equation of State Measurements of Deuterium up to 2Mbar

- Miklos Gyulassy, PupinLab - Inertial De-Confinement of the Quark-Gluon Plasma
- Didier Saumon, Vanderbilt - High Pressure EOS of Hydrogen and Implications for the Giant Planets
- Toshiki Tajima, UTexas - Black Hole Plasma Physics Using Intense Short Pulse Lasers
- Al Wong, UCLA - The Aurora Borealis: A Plasma Physics and Environmental Laboratory in the Sky

TRI-DIVISIONAL COLLOQUIUM

Organizer: Wick Haxton

- Ken Young, UW - SuperKamiokande: First Results
- Jack Farmer, NASA Ames - Martian Life

Bethe Prize Nominations

The first recipient of the Hans A. Bethe Prize will be selected this year. The prize recognizes outstanding work in theory, experiment, or observation in the areas of astrophysics, nuclear physics, nuclear astrophysics, or closely related fields. It consists of a \$7500 award and a certificate citing the contributions made by the recipient. The APS guide for nominating candidates recommends that nominations include a nomination letter not to exceed 1000 words, a biographical sketch, a list of publications, two or three seconding letters, and up to five reprints or preprints. Nominations must be received by the APS by July 1, 1997, to be considered this year.

Fellowship Nominations Sought

Every year, our division nominates 6 or 7 APS members for Fellowship. If you would like to recommend a member for Fellowship you may do so by filling out the nomination form which the APS provides at http://aps.org/fellowship/nomination_form.html. Please submit nominations by May 1 to

Executive Officer
American Physical Society
One Physics Ellipse
College Park, MD 20740-3844
ATTN: Fellowship Program

Unsuccessful nominations submitted for the first time last year will be reconsidered this year by the Fellowship Committee (though additional supporting letters would be still welcome). Beyond one year, nominations must be re-submitted.

Proposal for Formation of a Topical Group in Plasma Astrophysics

The physics of plasmas plays a crucial role in several astrophysical phenomena, as seen by the example of Alfvén, Chandrasekhar, Parker, and Spitzer, who have incorporated fundamental plasma physics concepts to elucidate astrophysical observations. Plasma astrophysicists, however, are a fairly small and select group in the much larger milieu of astrophysicists. Recognition has been relatively slow that an understanding of the physics of magnetized plasmas is not only invaluable but may be essential for a proper explanation of observations. In the meantime, plasma physics, with strong impetus from fusion, laboratory, and space plasma science, has grown to significant maturity. This mature body of knowledge is likely to have a significant impact on the eventual resolution of some of the outstanding astrophysical questions.

Despite identification of problems of mutual interest, the plasma physics and astrophysics communities have remained, for the most part, quite distinct, with different societies and memberships, conferences, and archival journals. A primary rationale for formation of a

Topical Group in Plasma Astrophysics (within the APS) is to build a stronger bridge between the two communities. The need to create this Topical Group has been identified by an informal Plasma Astrophysics Working Group (PAWG) that has met during the last few annual meetings of the Division of Plasma Physics (DPP) and has organized several evening symposia at that meeting. Participants in the PAWG have suggested several reasons for formation of the Topical Group: that it will lead to sharing of knowledge based on fundamental plasma physics and stripped of the jargon that often inhibits communication between different communities; that it will provide a natural home for people who do not presently feel at home in the DPP or are not even members of the APS; that it will make it easier for plasma astrophysics to become an integral and visible part of APS meetings and to elect APS Fellows in this important and growing area of research; that it will give focus for research funding by the National Science Foundation and the Department of Energy. Support of at least 200 APS members is needed to form the Topical Group. If you are interested in endorsing such a proposal, send an email message to Amitava Bhattacharjee (amitava@iowa.physics.uiowa.edu). Email messages can also be directed to Bruno Coppi (present Chair, PAWG, coppi@pfc.mit.edu) or Toshi Tajima (past Chair, PAWG, tjt@dino.ph.utexas.edu).

DAP Fellows Announced

The following distinguished scientists are our Division's new Fellows of the American Physical Society. They will receive a certificate at the Division of Astrophysics business meeting during the April Meeting in Washington, DC.

Walter H. G. Lewin

MIT

For his outstanding observational work on the time variations and spectra of galactic x-ray sources, and in particular for his studies and interpretations of bursting and pulsating phenomena in binary x-ray sources.

James M. Bardeen

University of Washington

For his seminal contributions to the theory of cosmological density perturbations, relativistic astrophysics, and galactic structure.

Edmund Bertschinger

MIT

For his outstanding contributions to theoretical cosmology, especially in the understanding of structure formation in the universe.

Arthur F. Davidsen

Johns Hopkins University

For fundamental advances in the ultraviolet astronomy of faint extragalactic objects, and especially for the impact of these observations on our understanding of the hot intergalactic medium.

John C. Mather

Goddard Space Flight Center

For his advancement of the science of cosmology through precise measurement of the spectrum of the cosmic microwave background radiation and discovery of the first evidence of primordial density inhomogeneities.

Peter I. Meszaros

Pennsylvania State University

For valuable and influential contributions to the theory of radiation processes near magnetized neutron stars, gamma-ray burst sources, black holes and galaxy formation.

E. Sterl Phinney

Caltech

For his contributions to our understanding of black-hole electrodynamics, AGNs and quasars, binary and millisecond pulsars, and globular cluster dynamics, and his method for measuring the intergalactic magnetic field.

Gerald H. Share

Naval Research Laboratory

For his important gamma-ray line observations of the products of nucleosynthesis, which have advanced our understanding of the production rates and distribution of galactic nucleosynthesis.

Invitation to Apply for Travel Support to the 25th International Cosmic Ray Conference

The American Physical Society is applying to granting agencies for funds to support the airfare for approximately 15 U.S. scientists to attend the 25th ICRC in Durban, South Africa 27 July - 8 August 1997. If the proposals are successful, the funds will be administered by the Division of Astrophysics. Contingent on receipt of grant support, awardees will be selected by a committee appointed by the Division's Executive Committee. These awards are NOT limited to members of the APS.

Letters of application (**4 copies**) should be sent to:

APS Astrophysics Division Travel Grant
c/o Professor J.A. Goodman
Department of Physics
University of Maryland
College Park, Maryland 20742-4111

Applications must be received by **March 28, 1997**. Awards will be announced as soon after May 1 as possible (contingent on success of the proposals) in order to allow timely purchase of tickets. Detailed conditions of the awards may be set by the granting agencies, but it is the intention of the APS that they will be made on the basis of scientific merit in the field of cosmic ray physics with preference to young scientists (e.g. graduate students and post-docs) who have become active in cosmic ray research too recently to have other travel support. In exceptional circumstances awards may be made to more senior scientists who for some good reason are not on existing grants or do not have other support for travel. The awards will be for minimum air fares on U.S. carriers. Applications should include:

- Brief vita and list of relevant publications;
- Reasons for attendance and copies of abstract to be submitted to the conference;
- List of grant, contract and institutional support available to the applicant and why these cannot be used for the trip;
- How other expenses will be met if air fare is awarded; Cost of air fare and basis for the estimate;

- Name, date and location of international scientific meetings attended abroad or scientific visits abroad during the last 3 years, and sources of support.
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Are You Receiving Email from DAP?

Information of immediate importance to DAP members is often distributed through a DAP email exploder that the APS has established. Recently, news of the Bethe prize, as well as a call for invited speaker nominations for the upcoming APS meeting have been emailed to our members. If you did not receive these messages, please take a moment to check that your email address is current in the APS records. This can be done by contacting the APS offices directly, or by contacting P. Boyd of the DAP. Don't be left out of the loop!

DAP Home Page

The DAP's homepage can be found under <http://www.aps.org/division.html>. It is a good source of general information about our division and includes items such as this (soon) and past newsletters. The division will continue to upgrade the homepage. We intend, for instance, to add a listing of postdoctoral/faculty/staff openings in astrophysics, as well as a catalog of astrophysics Ph.D. programs that prospective graduate students can consult. Please send suggestions for improvements to any member of the executive committee.

Free Student Memberships

Encourage your younger colleagues to join the APS/DAP! **FIRST YEAR FREE FOR STUDENTS!!!** The DAP is anxious to welcome younger members of our community into the Division. Please clip this notice and bring it to the attention of your students and postdocs. First-year membership in the APS and the Division of Astrophysics is free for students. Thereafter, student membership in the APS is \$25/year and in the Division \$6/year. Recent Ph.D.s can join the APS at the rate of \$45/year for up to three years following completion of the doctorate.

Joining is now simple: visit <http://www.aps.org/memb/index.html>. Enrollment can be done on line, or membership forms can be downloaded. Instructions for the free trial membership for students are included. Be sure to list the DAP under "units" to be joined! (Students wanting to learn more about the DAP can visit <http://int.phys.washington.edu/dap>). Current APS members have the opportunity to sign onto a new unit free of charge for a limited time. Please encourage your colleagues to consider membership in our division. Any APS member may join an additional unit from now until their next billing, at no charge. This only applies to

new units. (The APS will not refund a year for a unit someone already belongs to.)

APS members may email membership@aps.org and provide their name, member number (if known), and the name of the unit they would like added to their membership. They may also fax this information to 301-209-0867, or call the Membership Department at **301-209-3280**.

1997 DAP Elections

The candidates for vice-chair, member-at-large, and division councillor have provided their statements below. Please review them, and vote on the enclosed [ballot!](#) DEADLINE: ballots must be received by **March 21, 1997**.

For Vice Chair

Marv Leventhal
University of Maryland

BIOGRAPHICAL INFORMATION: Marvin Leventhal received his Ph.D. from Brown University in 1964. He served on the faculty of the Yale University Physics Department from 1964 through 1968 as a Postdoctoral Fellow and Assistant Professor. From 1968 through 1991 he was a Member of the Technical Staff at AT&T Bell Laboratories in Murray Hill, NJ. From 1991 through 1993 he was a Senior National Research Council Fellow at Goddard Space Flight Center. Since 1993 he has been Professor and Chairman of the Department of Astronomy of the University of Maryland at College Park, MD. He is a Fellow of the APS and served on the Executive Committee of the HEAD Division of the AAS. He has served on numerous national committees.

M. Leventhal's principle research interests are in high energy astrophysics, gamma ray astronomy and laboratory astrophysics. Of particular interest is the problem of the origin and distribution of annihilation radiation from the Galaxy. Using a balloon borne gamma ray telescope he participated in the pioneering work on this radiation from the Galactic Center region. He is currently using a variety of satellite and balloon experiments to pursue this and other interests.

CANDIDATE'S STATEMENT: If elected as Vice Chair of the DAP I would strive to achieve the following 5 goals over the next 4 years: 1) Increase and sustain membership in the DAP particularly among younger scientists. The DAP membership (about 2,000 out of 30,000) does not reflect the prominent role played by modern astrophysics in the overall scientific activity of the APS nor the great interest of the public in our work. Increased membership would also give us a greater voice in all APS activities; 2) Maintain the high level of presentations at the Spring Meeting and involve a large cross section of members in arranging the programs; 3) Initiate closer cooperation with our sister division (HEAD) in the

AAS to better define the missions of the two divisions and to avoid obvious scheduling conflicts such as the unfortunate events of last spring. Among other things it would be worth considering joint memberships in the two divisions; 4) Increase the outreach activities of the DAP at the K- 12 level, to the general public and indirectly to our government officials. We are entering an era of national budget balancing and implied funding cutbacks for our enterprise. The best tool we have for our defense is that of educating the society at large about the exciting activities we engage in. Astrophysics continues to experience a golden age as powerful new telescopes and sensors reveal the secrets of the universe; 5) Work to increase employment opportunities for our youngest members. It is time to put our heads together and think of creative things to do that will keep the next generation of astrophysicists from being driven out of the field.

Trevor Weekes
SAO/Arizona

BIOGRAPHICAL INFORMATION: Current position: Senior Astrophysicist at the Smithsonian Astrophysical Observatory and resident at the Fred Lawrence Whipple Observatory in Arizona for 30 years. Served as Resident Director of the Observatory from 1969 till 1976. My degrees are from University College, Dublin (B.Sc., Ph.D., D.Sc.). I am the recipient of the 1997 Rossi Prize of the American Astronomical Society. I am Spokesperson for the Whipple Gamma Ray Collaboration. I have served on the Executive Committee of the Astrophysics Division (also the Nominating Committee) of the APS; I have also served on the Executive Committee of the High Energy Astrophysics Division of the AAS. My interests are in: high energy gamma-ray astronomy, gamma-ray bursts, cosmic rays, black holes.

CANDIDATE'S STATEMENT: As research funding diminishes with memories of the Cold War it is becoming increasingly necessary to seek public approval for major scientific research projects. The interest of the general public in astronomical topics is well known; this interest should be shamelessly exploited by the APS is seeking approval for physics funding. The role of the Astrophysics Division is therefore critical and every attempt should be made to increase its visibility in the society. This can be done by arranging programs with broad popular appeal, in particular by crossing divisional lines, by choosing topics that are on the forefront of astrophysical research, and by inviting speakers who are outstanding communicators. Because of their unusual and popular specialty, Division of Astrophysics members must be encouraged to get involved in all the efforts of the APS to popularize and support public understanding of science.

Many of the most interesting areas of astrophysical research are inter-disciplinary and outside the normal funding channels; we should take care to support and publicize these unusual channels of astrophysical information and ensure that they are not lost between the cracks.

The membership of the Astrophysics Division must be increased perhaps by targeting members of the AAS whose interests are in astrophysics, by attracting physics teachers who use astrophysics in their teaching and by exploiting the mutual interest with high energy particle and nuclear physicists.

Member-at-Large

Eli Dwek

Laboratory for Astronomy and Solar Physics, NASA/GSFC

BIOGRAPHICAL INFORMATION: Eli Dwek received his Ph.D. from Rice University in 1977. He subsequently held postdoctoral positions at the Kellogg Radiation Laboratory at Caltech, and in the Astronomy Program at the University of Maryland; Eli also was an NAS/NRC Fellow in the Infrared Astrophysics Branch at NASA/GSFC, where he is currently conducting research in theoretical astrophysics. Eli is a member of the COBE Science Working Group, involved primarily in the analysis and modeling of the infrared emission detected by the Diffuse Infrared Background Experiment on board the COBE satellite. He was a member of the NASA science working group for the studies of SN 1987A. His primary current research interests are: (1) setting limits on the cosmic infrared background and examining the implications of these limits on cosmic chemical evolution and the conversion of starlight into infrared radiation; and (2) studies of interstellar dust in a variety of astrophysical environments.

RESEARCH INTERESTS: Galactic structure; supernovae and supernova remnants; interstellar dust and infrared astronomy; stellar and chemical evolution; cosmology and background radiations.

CANDIDATE's STATEMENT: As a member of the Executive Committee, I will strive to increase young physicists' awareness of research opportunities at the various NASA centers. I will also continue the tradition of organizing the program of invited talks in astrophysics for the Spring Meeting of the American Physical Society. In the past, these talks have emphasized the connection between nuclear/particle physics and cosmology/high-energy astrophysics. I would expand the range of topics to include the exciting field of infrared astrophysics.

John P. Hughes

Rutgers University

Assistant Professor of Physics and Astronomy, Rutgers University, New Brunswick, NJ

BIOGRAPHICAL INFORMATION: B.A. Columbia College 1978; Ph.D.

Columbia University 1984; Staff Scientist, Harvard-Smithsonian Center for Astrophysics (1984-1996). Currently Assistant Professor of Physics and Astronomy, Rutgers University, New Brunswick, NJ

RESEARCH INTERESTS: supernova remnants, nucleosynthesis, clusters of galaxies, Sunyaev-Zel'dovich effect.

PREVIOUS SERVICE POSITIONS: member NASA High Energy Astrophysics Management Operations Working Group, member and chair of various NASA peer review panels, chair of ASCA Users' Group, member of APS DAP nominating committee, member Astro-E International Science Working Group.

CANDIDATE'S STATEMENT: The role that astrophysics plays as an element of the larger field of general physics is becoming increasingly more prominent. The connections between cosmology, the early Universe, and elementary particle physics are well known, but in other areas, including my particular research interests of nucleosynthesis and X-ray spectroscopy, physicists have much to offer the modern astronomer. In order to strengthen both fields, it is important that we astronomers take advantage of the resources and expertise of the larger physics community as we interpret observations from our existing ground- and space-based facilities and as we plan for the next generation of missions and observatories. As a member of the Executive Committee of the Division of Astrophysics, I will work toward the goal of closer interaction by sustaining the high quality of our annual meeting and promoting the growth of the division by encouraging membership from both the physics and astronomy communities.

Lawrence M. Krauss
Case Western Reserve University

BIOGRAPHICAL INFORMATION: Ph.D. from MIT in 1982, Junior Fellow at the Harvard Society of Fellows from 1982-85. Faculty of the departments of physics and astronomy at Yale University (1985-1993). 1993-Present: Ambrose Swasey Professor of Physics, Professor of Astronomy, and Chairman of the Physics Department at Case Western Reserve University.

SERVICE EXPERIENCE: I have had substantial experience as a member of both physics and astronomy departments, coordinator of various national and international conferences, member of various task forces in physics and astronomy, and in my current position as Chairman of the Physics Department at Case Western Reserve University in long range planning, coordinating different groups of physicists, and in hiring. In addition, through my popular writing, I have become a spokesman for physics and astrophysics among the general public. I believe the connections I have established, the experience I have in administration, as well as the diverse experience I have in research will help me contribute to the workings of the Division.

RESEARCH INTERESTS: cosmology, large scale structure, stellar evolution, neutrino astrophysics, planetary physics, and general relativity.

CANDIDATE'S STATEMENT: This is a very exciting time for astrophysics. With new data coming in from a vast variety of sources, and wavelengths, the coming decade promises a revolution in our knowledge of such areas as structure formation, stellar evolution, planetary formation, and the early universe. Perhaps no other Division of physics will yield such excitement in the near term. In addition, the connections between astrophysics and other areas of physics, including particle physics, nuclear physics, general relativity, plasma physics, and condensed matter physics continue to increase, so that fundamental progress will depend in part on interdisciplinary work. The purpose of the Division of Astrophysics of the APS should not be merely to provide an internal focus on important new developments. It should also spearhead an awareness among other physicists of these developments. In addition, we should focus on increasing the interdisciplinary connections and contacts with other areas in order to make others aware of the research opportunities. Finally, one of the more important issues the Division will have to address is the changing climate for research support in astrophysics.

Lyman Page
Princeton University

BIOGRAPHICAL INFORMATION: Lyman A. Page received his B.A. from Bowdoin College in 1978. After five years of working as a research technician in the Antarctic, re-building and sailing a 37' ketch about the Eastern seaboard and Caribbean, and carpentering in Boston, he started graduate school at MIT, receiving his Ph.D. in 1989. He went on to work as a post-doc at MIT (1989-1990), Instructor of Physics at Princeton (1990-1991), Assistant Professor at Princeton (1991-1995), and now Associate Professor at Princeton (1995-). He is the recipient of a NASA GRSP fellowship, NSF NYI grant, Research Corporation Cottrell Scholars award, and a David and Lucile Packard Foundation award.

RESEARCH INTERESTS: Page's current research interest is in cosmology, specifically measurements of the anisotropy in the cosmic microwave background. He has been part of five separate experiments over the last ten years and is now part of the MAP (Microwave Anisotropy Probe; Chuck Bennett, NASA/GSFC, is PI) satellite project.

CANDIDATE'S STATEMENT: One of the principal responsibilities of the executive committee is organizing a meeting program that is interesting to DAP members. I would bring the perspective of an experimental cosmologist, with interests ranging from gravity wave detection to high energy probes of the cosmos. In all fields, there seems to be a growing gap between those who build experiments and those who analyze the data from them. I strongly support talks, prizes, and programs that emphasize the necessary union of these endeavors. I support with

equal enthusiasm prizes and programs aimed at increasing the public's awareness of how science is done.

For Division Councillor

Edward L. Chupp
University of New Hampshire

BIOGRAPHICAL INFORMATION: Edward L. Chupp received his A.B. in Physics (with Honors) in 1950 from the University of California, Berkeley, and a Ph.D. in cosmic ray physics in 1954 from the same institution. He was a staff physicist at the Lawrence Livermore Laboratory (1954-1959), a physicist at the Boeing Airplane Company (1959-1961) before joining the University of New Hampshire faculty as Associate Professor of Physics (1962) and then Professor of Physics (1967). He has been a Senior Fulbright-Hayes Fellow (1972-1973), a Alexander von Humboldt Senior Awardee (1972-1973 and 1992) and a National Academy of Sciences China Scholar (1987). In 1972 he received the NASA Medal for Exceptional Scientific Achievement "For outstanding contributions to the discipline of gamma-ray astronomy and solar physics with balloons and the Orbiting Solar Observatory 7 and the discovery of nuclear reactions in the solar atmosphere during flares".

RESEARCH INTERESTS: gamma-ray astrophysics, galactic gamma radiation, the Sun as a star (flares, particle acceleration, and the terrestrial effects of solar radiation), and gamma-ray and neutron instrument development. He is actively involved in the analysis of satellite gamma-ray data (SMM and CGRO) and the development of balloon instruments for cosmic and solar gamma-ray studies.

CANDIDATES STATEMENT: The Division Councillor serves as the liaison between the Council of the Society and the Executive Committee of the Division. The Council meets, at least, twice a year and our Councillor must report to the Executive Committee as early as possible any Council actions which affect the status and operation of the Division. The Councillor should also carry to the Council appropriate Division concerns as requested by the Executive Committee. The Councillor shall report to the entire Executive Committee during their regularly scheduled meetings. Since joining the Division shortly after its formation in 1970 and being elected Fellow in 1975, I have served the Division in many capacities. As a former member of the Executive Committee I have assisted in planning of sessions at the Society's Spring Meetings' and served on the Fellowship Committee several times. Most recently, I have served as Vice-Chair (1991) and Chair (1992). For past-Chair responsibilities I have helped establish, with Alice Harding and Wick Haxton, the Bethe Prize, and helped organize the reviews of a vast number of proposals from colleagues in astrophysics from the former Soviet Union which were sent to the Division by the APS Office of

International Scientific Affairs. In my capacity as Councillor, if elected, I would carry out fully the responsibilities as described above. The Division particularly must seek ways to increase its membership, improve the communication of the excitement and importance of astrophysics to the general public and especially to increase general Society participation in the Spring Meetings.' The Councillor as liaison with the Society's Council is in a strong position to help bring Society resources to bear in helping to strengthen the Division.

Stephen S. Holt
Goddard Space Flight Center

BIOGRAPHICAL INFORMATION: Stephen S. Holt is the Director of Space Sciences at the Goddard Space Flight Center, where he has been a staff member since receiving his Ph.D. (Physics) from NYU in 1966. He is concurrently a Fellow of the APS, Adjunct Professor of Astronomy at the University of Maryland, X-Ray Astronomy Editor of the journal *Experimental Astrophysics*, and Vice Chair of the Astrophysics Subdivision of COSPAR.

RESEARCH INTERESTS: High energy astrophysics, X-ray astronomy, X-ray spectroscopic studies of supernova remnants and active galactic nuclei

RELATED EXPERIENCE: Past chair, High Energy Astrophysics Division of the AAS; past member, Executive Committee of the DAP; fellow of the APS

CANDIDATE'S STATEMENT: The Division Councillor serves as representative of the DAP at council (and committee) meetings of the APS. As such, he/she is responsible for effectively advocating the consensus view of the DAP membership. If I were evaluating the qualifications of a candidate for Division Councillor, I would be interested in three things: willingness to take the time to determine the consensus of the DAP executive committee (if not the whole membership) on upcoming issues, commitment to attend the council meetings in order to assure that the DAP opinions are actually delivered, and sufficient experience and good sense to act in the best interests of the DAP spontaneously. I expect to exhibit these characteristics as DAP Division Councillor.

1996-97 Executive Committee Division of Astrophysics

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