

James Clerk Maxwell Prize for Plasma Physics

"For seminal research on the energetics, stability, and dynamics of astrophysical plasmas, including those related to stars and galaxies, and for leadership in linking plasma and other astrophysical phenomena."

Ellen Gould Zweibel
University of Wisconsin-Madison



Ellen Gould Zweibel received an A.B. in mathematics from the University of Chicago in 1973, and a Ph.D. in astrophysical sciences from Princeton University in 1977. She is currently the William L. Kraushaar Professor of Astronomy and Physics and Vilas Distinguished Achievement Professor at the UW Madison. She was a founding member and past director of the Center for Magnetic Self Organization, a National Science Foundation/Department of Education-funded Physics Frontier Center. Dr. Zweibel has a broad research program in plasma astrophysics, spanning the study of the sun and stars, the formation, evolution, and structure of galaxies, and the physics of galaxy clusters. She has been a fellow of the American Physical Society since 1991.

What to Do in San Jose The Tech Museum of Innovation

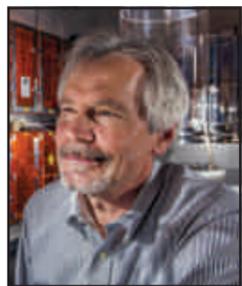
Located on the Cesar Chavez Plaza, this interactive museum isn't hard to find because of bright orange exterior. This is a great place for kids to be kids and adults to follow suit. Here, you can hop behind the wheel of a remote control Martin or do a test run on the same virtual simulator that the U.S. bobsled team used during their training. Other exhibits include laser technology, robotics, and space exploration.

201 South Market Street,
408-294-8324, www.thetech.org

John Dawson Award for Excellence in Plasma Physics Research

"For extraordinarily thorough laboratory opacity measurements of plasmas at realistic stellar interior conditions that directly resolve outstanding questions about solar structure, identify new theoretical challenges, and propel a new generation of precision high energy density experiments of direct astrophysical relevance."

James Bailey
Sandia National Laboratories



James Bailey received his B.S. in physics from the University of New Mexico in 1978 and a Ph.D. in physics from the University of California, Irvine in 1984. Following a postdoctoral appointment in the Physics Department at Lawrence Livermore National Laboratory, he joined the Pulsed Power Sciences Directorate at Sandia National Laboratories in 1985. Dr. Bailey is currently a Distinguished Member of the Technical Staff at Sandia. Dr. Bailey's primary research interest is in high energy density physics, with an emphasis on spectroscopy and the behavior of atoms in plasmas, although his work has spanned a wide range of topics: Zpinch radiation hydrodynamics measurements, Xray microscopy of human blood cells, neonlike spectral line emission diagnostics, ion beam matter interaction experiments, 1 GV/m electric fields measured with the Stark effect, and capsule implosions driven by Zpinch Xrays. Currently, Dr. Bailey's concentration is in laboratory measurements of astrophysical plasma properties. Dr. Bailey was elected a fellow of the American Physical Society in 2004 and is a member of the American Astronomical Society. He is a two-time recipient of the Lockheed Martin NOVA Award.

Thomas H. Stix Award for Outstanding Early Career Contributions to Plasma Physics Research

"For innovation and leadership in quantifying hydrodynamic instability mix in inertial confinement fusion implosions at the National Ignition Facility and for key contributions to experiments demonstrating fusion fuel gains exceeding unity."

Tammy Ma
Lawrence Livermore National Laboratory



Tammy Ma is an experimental physicist who studies inertial confinement fusion (ICF) and high energy density physics at the National Ignition Facility (NIF) at the Lawrence Livermore National Laboratory (LLNL). Dr. Ma graduated from the California Institute of Technology (Caltech) in 2005 with a B.S. in aerospace engineering, then received her M.S. in 2008 and Ph.D. in 2010, both from the University of California, San Diego. Dr. Ma subsequently completed her postdoctoral work at LLNL before being named a staff scientist in 2012. She now leads a number of the fusion experiments at the NIF and currently heads the XRay Analysis Group for the ICF program. Dr. Ma has authored or coauthored more than 110 refereed journal publications and is strongly committed to education and scientific outreach. Dr. Ma recently was awarded the Presidential Early Career Award for Science and Engineering (PECASE), the highest honor bestowed by the U.S. government on science and engineering professionals in the early stages of their independent research careers.

Landau-Spitzer Award

"For seminal joint research providing key understanding and quantitative verification of global mode stability in experimental high performance tokamak plasmas, based on drift-kinetic MHD theory, and made possible by strong and essential partnership between Europe and the USA."

Holger Reimerdes
École Polytechnique Fédérale de Lausanne (EPFL)



Holger Reimerdes studied physics at the University of Bayreuth, Germany, where he graduated in 1996 with a diploma thesis titled "Determination of local transport coefficients during edge localized modes in the ASDEX-Upgrade tokamak." He then attended the doctoral school at the École Polytechnique Fédérale de Lausanne (EPFL), Switzerland, investigating "MHD stability limits in the TCV tokamak" and obtained his Ph.D. in 2001. His thesis received the 2002 ABB prize for General Physics, awarded by the Swiss Physical Society.

Dr. Reimerdes joined Columbia University as a postdoctoral research fellow on a long-time assignment at General Atomics, San Diego, U.S.A. His work there focused on the stability of high beta plasmas and their response to externally applied non-axisymmetric magnetic fields and resulted in the development of low-frequency active MHD spectroscopy to measure resistive wall mode damping rates and rotation frequencies. Dr. Reimerdes left Columbia University in 2010 as a senior research scientist to return to the Swiss Plasma Center (SPC) at the EPFL, where he has directed his interest towards divertor physics and innovative plasma configurations. Since 2014 he is also leading a EUROfusion project on the "Assessment of alternative divertor geometries and liquid metals."

John W. Berkery
Columbia University



Jack Berkery received his bachelor degree in mechanical engineering from Cornell University in 1999, and his Ph.D. in mechanical and aerospace engineering from Princeton University in 2005. Dr. Berkery is a

research scientist at Columbia University on a long-term collaboration at the Department of Energy's Princeton Plasma Physics Laboratory in Princeton, NJ. Dr. Berkery works on the National Spherical Torus Experiment Upgrade (NSTX-U), where he is the leader of the Macroscopic Stability topical science group. His research is focused on reducing disruptions of fusion plasma discharges in tokamaks, including the resistive wall mode, an instability of the plasma that can appear at high pressures.

Dr. Berkery is a member of the American Physical Society (APS) and has been invited by selective committees to give talks on his research at the APS's Division of Plasma Physics meetings and more than twenty other conferences, including internationally in Israel, Ireland, Germany, and Taiwan. Dr. Berkery has been the first author on more than a dozen scientific papers on his research including two in Physical Review Letters and one that has been recognized as one of the most cited articles of 2014 by Physics of Plasmas.

Steven Anthony Sabbagh
Columbia University



Steven A. Sabbagh was awarded a B.S. degree from Columbia in 1984, M.S. in 1985, M.Phil. in 1988, and Ph.D. in 1990. Dr. Sabbagh is a senior research scientist and adjunct professor of applied physics at Columbia

University, on long-term assignment at the Princeton University Plasma Physics Laboratory (PPPL). He directs, organizes, and conducts research in a collaboration between Columbia University and PPPL as principal investigator for research on magnetohydrodynamic plasma stability on the National Spherical Torus Experiment-Upgrade (NSTX-U) and the Korea Superconducting Tokamak Advanced Research (KSTAR).

Dr. Sabbagh's present scientific endeavors include research on the physics of macroscopic stability of magnetically confined fusion plasmas and their control by active means, neoclassical toroidal viscosity in tokamak plasmas created by three-dimensional magnetic fields, and the prevention of disruptions in tokamak plasmas. He has merited a number of awards including the Kaul Foundation Prize for Excellence in Plasma Physics Research and Technology Development (awarded by Princeton University), the International Atomic Energy Agency Nuclear Fusion Award, and the IEEE Nuclear and Plasma Sciences Society Graduate Scholarship Award. He was elected an American Physical Society Fellow in 2010.

Yueqiang Liu
Culham Centre for Fusion Energy



Yueqiang Liu received his Ph.D. in physics and mathematics from Moscow State University in 1999. Dr. Liu is a Senior Fusion Theorist at the Culham Centre for Fusion Energy (CCFE) in

Oxfordshire, United Kingdom, since 2008. He is also presently an adjunct professor at Chalmers and an adjunct professor at the Southwestern Institute of Physics, China. He worked at Chalmers University of Technology, Sweden from 1999 till 2008, holding various positions: Postdoc in 1999;

assistant professor during 2000-2003; associate professor during 2003-2008.

Dr. Liu is currently working on theory and modelling of macroscopic instabilities in fusion plasmas. In particular, he has been working on magnetic feedback and kinetic stabilisation of the so-called resistive wall modes, that can pose severe limitation on the advanced fusion plasma scenarios, such as those foreseen for ITER. Dr. Liu has so far authored/co-authored more than 160 peer-reviewed journal papers, 40 invited talks at international conferences, and other 180 conference contributions.

Marshall N. Rosenbluth
Outstanding Doctoral
Thesis Award

"For first experimental demonstration of the importance of kinetic and multi-ion effects on fusion rates in a wide class of inertial confinement fusion implosions, and for use of proton diagnostics to unveil new features of magnetic reconnection in laser-generated plasmas."

Michael J. Rosenberg
University of Rochester



Michael Rosenberg received his B.A. in physics with high honors from Swarthmore College in 2008, conducting research in spectroscopic analysis of photoionized laboratory plasmas. He continued his studies in plasma

physics at the Massachusetts Institute of Technology, joining the High Energy Density Physics (HEDP) Division, led by Dr. Richard Petrasso, at the Plasma Science and Fusion Center. He earned his Ph.D. in Plasma Physics in 2014. His dissertation research spanned multiple areas in HEDP and fundamental plasma physics, including the demonstration of ion kinetic effects over a range of plasma conditions in shock-driven laser inertial confinement fusion (ICF) implosions as well as the investigation of magnetic reconnection using laser-generated plasmas in the strongly flow-driven regime.

Michael is now a research associate at the University of Rochester's Laboratory for Laser Energetics, where he leads experiments to understand laser-plasma interactions in long-scale-length plasmas at the National Ignition Facility, relevant to direct-drive ICF. He is a member of the American Physical Society.

Résumé Help Desk

Monday - Wednesday
October 31 - November 2,
10:00 a.m. - 6:00 p.m.

Thursday, November 13
10:00 a.m. - 4:00 p.m.

San Jose Convention Center,
Exhibit Hall 1

Back by popular demand, DPP is hosting a résumé help desk as a FREE service to meeting attendees! The Résumé Help Desk is located in the Job Fair area. Interested attendees should stop by the desk to sign up for a 30-minute time slot to meet with a professional scientist for advice on how to construct an effective résumé or CV. Slots will be filled on a first-come, first-served basis, so don't delay!

What to do in San Jose
Winchester House

This remarkable piece of Victorian architecture has 10,000 windows, 2,000 doors, and until October 10, 2016, it was believed to have 160 rooms. A few days ago however, another room was discovered and has been opened to the public. The house once served as the residence of Sarah Winchester, the daughter of gun maker William Wirt Winchester. Construction began in 1884 but stopped when Ms. Winchester died in 1922. She (and others) claimed the house was haunted. There are several tours of the mysterious house and remarkable grounds available daily.

525 South Winchester Boulevard,
408-247-2101,
www.winchestermysteryhouse.com

Career Workshop
Do Physics, Be Anything:
How to Sell Your Skills on the
Non-Academic Job Market

Wednesday, November 2,
12:30 p.m. - 2:00 p.m.

San Jose Convention Center,
Room 211 AB

The majority of physics graduates find work in non-academic settings, yet very few students have access to mentors with industry experience and therefore the information on how to best prepare themselves for careers outside of the academic world. In this interactive workshop, Crystal Bailey (Careers Program Manager at APS) will provide tips and strategies for discovering-and successfully pursuing-careers that align with your skills, interests, abilities, and values. The workshop is free and open to all attendees.

Speaker Ready Room Hours
San Jose Convention Center,
Room 111

Monday, Oct. 31, 8:00 a.m. - 5:00 p.m.

Tuesday, Nov. 1, 8:00 a.m. - 5:00 p.m.

Wednesday, Nov. 2, 8:00 a.m. - 5:00 p.m.

Thursday, Nov. 3, 8:00 a.m. - 5:00 p.m.

Friday, Nov. 4, 8:00 a.m. - 11:00 a.m.

Review Talks

Review talks start at 8:00 a.m.
Monday - Friday

Exhibit Hall 2

Coffee Breaks

Concourse and Exhibit Hall 1

Monday-Friday, 9:00 a.m. - 9:30 a.m.

Monday-Thursday, 3:00 p.m. - 3:30 p.m.

Note: Beverages will not be replenished.

DPP Registration Desk Hours
San Jose Convention Center,
Concourse

Sunday, Oct. 30 2:00 p.m. - 7:00 p.m.

Monday, Oct. 31 7:00 a.m. - 5:00 p.m.

Tuesday, Nov. 1 7:00 a.m. - 4:00 p.m.

Wednesday, Nov. 2 7:00 a.m. - 3:00 p.m.

Thursday, Nov. 3 7:00 a.m. - 3:00 p.m.

Friday, Nov. 4 7:00 a.m. - 12:00 p.m.

Professional Skills Workshop
for Women Physicists

Sunday, October 30
8:30 a.m. - 4:00 p.m.

San Jose Convention Center,
211 CD

Professional Skills Development Workshops are designed to provide women physicists with professional training in effective negotiation and communication skills, as well as a special opportunity for networking.

Participation is open to female postdocs and early career female physicists. Workshops are conducted by professional facilitators and are limited for optimal participation. Participants must have pre-registered.

HEDSA Symposium on
High Energy Density
Laboratory Plasmas

Sunday, October 30
7:00 p.m. - 10:00 p.m.

San Jose Convention Center,
212 AB

The High Energy-Density Science Association (HEDSA) will hold its annual Symposium on High Energy Density Laboratory Plasmas in Room 212 AB of the San Jose Convention Center. The program includes presentations from prominent researchers in basic and applied High Energy-Density sciences. The HEDSA symposium is free to all conference attendees.

Companions' Breakfast

Monday, October 31
8:30 a.m. - 11:00 a.m.

San Jose Marriott, Guadalupe,
2nd Level

Note: Breakfast is only for companions and their children.

Join other companions who are attending the annual meeting for a DPP-sponsored complimentary breakfast at the Marriott Hotel. You will have an opportunity to join other companions and acquaint with friends from past DPP meetings. A representative from San Jose will attend the breakfast and share tour and site information while visiting the city.



Job Fair

Sponsored by APS DPP

Monday - Wednesday

Oct. 31 - Nov. 2, 10:00 a.m. - 6:00 p.m.

Thursday

November 3, 10:00 a.m. - 4:00 p.m.

San Jose Convention Center, Exhibit Hall 1

(Interviews will be held in private space near the Job Fair.)

APS DPP Job Fair 2016

Are you an employer looking to hire a physicist for your science and technology jobs? Are you a physicist looking to connect with potential employers to learn about opportunities, or interview for a job? Then you will not want to miss the APS DPP 2016 Job Fair, located San Jose McEnery Convention Center, Monday - Thursday, October 31 - November 3.

Participating employers can:

- Showcase your company with a Recruitment Booth
- Receive unlimited job board postings during the event
- Search the resume database for promising candidates
- Interview with potential candidates or employers on-site

Job seekers will be able to:

- Do a targeted search of the job database to identify recruiters attending and interviewing at the meeting
- Schedule private interviews with recruiters during the meeting
- Store multiple copies of your resume to share with participating employers

To register for the event, please stop by the Job Fair information desk in Hall 1.

APS DPP Membership Booth and Store

**Monday - Wednesday
October 31 - November 2
8:00 a.m. - 5:00 p.m.**

**San Jose Convention Center,
Concourse**

The APS Membership Department staff will be on hand to answer questions about APS and DPP membership. Stop by for information on how to become a member and purchase some fun and practical items. Joining APS and DPP is a perfect way to stay connected with the most recent developments in the physics community. Browse the selection of t-shirts, caps, and more.

Contact Congress

(Sponsored by APS Washington, D.C. Office)

**Monday - Thursday
October 31 - November 3
9:00 a.m. - 5:00 p.m.**

**San Jose Convention Center,
Concourse**

Stop by the Contact Congress desk to sign your name to letters addressed to your Congressional delegation on the importance of federal funding for basic research. It takes only a couple of minutes. By doing so, you are making your voice heard in Washington and helping to influence the funding levels for physics research and education. To amplify the impact, the APS Washington, D.C. Office will follow-up each letter with a call or visit to congressional staff. The strongest and most persuasive advocates on Capitol Hill come from a Senator or Representative's constituents. That means you! If you live in the United States, you are qualified to write to your members of Congress.

If you have any questions about what is happening in Washington, just stop by the Contact Congress desk to ask the experts.

Mini-Conferences

Two mini-conferences are scheduled Monday morning and afternoon and Wednesday morning and afternoon to be held in the San Jose Convention Center. Check the Epitome for the presenter start times.

All mini-conferences are organized with oral presentations plus time for Q&A, and may include poster presentations. They employ a question-oriented format to stimulate discussion and interaction among attendees. LCD projectors will be used in all oral sessions at the expense of DPP.

New Developments in Algorithms and Verification of Gyrokinetic Simulations

Room 211 CD

**Monday, October 31 at
9:30 a.m. & 2:00 p.m.**

Organizers:

*Amitava Bhattacharjee and
Eric Sonnendrücker*

Description: This mini-conference will bring together an international group of experts in gyrokinetic theory and simulation to discuss new developments and challenges. On the front of verification and benchmarking between various codes, an effort has been started within the

EURO fusion consortium. This includes making a clear link between gyrokinetic theory and the simplified versions implemented in the codes participating in the project and defining verification tests. A global Ion-Temperature-Gradient (ITG) microinstability benchmark case with adiabatic electrons has been defined that represents the lowest order step in a hierarchy towards the electromagnetic benchmark and which may furthermore serve as basis for future multi-ion species benchmark studies. Currently, five different gyrokinetic codes have successfully been compared, involving Eulerian (grid-based), PIC, and Semi-Lagrangian schemes. Electromagnetic effects on global microinstabilities have been studied in a joint comparison of four different PIC and Eulerian based gyrokinetic codes thus establishing a verification test unparalleled in its comprehensiveness in this regime. Linear and nonlinear benchmarks in the ITG regime with adiabatic electrons have also been successfully carried out. Presenters will be strongly encouraged to bring forth results on the EURO fusion challenge or other challenge problems.

Physics of Radiation Belts: Collaboration Between Laboratory, Theory and Satellite Observations

Room 211 CD

**Wednesday, November 2 at
9:30 a.m. & 2:00 p.m.**

Organizers:

Chris Crabtree and Evgeny Mishin

Description: The mini-conference presenters will share research on NASA's Van Allen Probes mission consisting of twin satellites orbiting the Earth inside the radiation belts that was launched on August 30, 2012 and is currently in its extended mission phase. For the last four years this mission has been providing high quality measurements of energetic particles and electromagnetic fields, which is revolutionizing radiation belt physics by providing a comprehensive picture of many detailed physics processes. The understanding of many of these nonlinear, multi-scale processes necessarily requires an approach that combines advanced analytical techniques, powerful numerical simulation platforms, carefully designed laboratory experiments, and in situ observations. To facilitate such broad collaboration and usher in a "golden era" of radiation belt research we bring plasma theorists, modelers, and experimentalists together with observers from the space physics community.

Basic Plasma Science Facility Users Group Meeting

**Monday, October 31
12:30 p.m. - 2:00 p.m.**

**San Jose Convention Center,
211 AB**

The Users Group of the Basic Plasma Science Facility (BAPSF) at UCLA will hold a meeting to discuss current status and plans for the user facility and the Large Plasma Device (LAPD). A brief presentation will be made by Professor Troy Carter, the facility director, discussing machine status and plans to upgrade the plasma source of LAPD. Presentations on two new science Campaigns using the

LAPD will be made: Professor Greg Howes will discuss the Solar Wind Campaign and Michael Martin, Dr. Bart Van Compernelle, and Dr. Rory Perkins will provide a status report and plans for the ICRF Campaign using new capabilities to couple high-power fast waves to LAPD plasmas. The Chair of the Users Group, Dr. Pat Colestock, will also facilitate the opportunity for feedback to the facility director from current and potential users. Beverages will be provided and it is suggested that attendees bring lunch to the meeting.

Women in Plasma Physics Luncheon

**Monday, October 31
12:30 p.m. - 2:00 p.m.**

**San Jose Marriott,
Ballroom Salon V/VI**

The guest speaker is Professor Ellen Zweibel of the University of Wisconsin-Madison, recipient of the 2016 James Clerk Maxwell Prize. Her talk title is "What can we in plasma physics learn from the increasing representation of women in astronomy?"

To attend the luncheon, mark the appropriate space on the DPP on-site registration form. The lunch tickets are \$25 for regular attendees and \$10 for graduate and undergraduate students. The lunch cost is partially subsidized by DPP.

Women in Plasma Physics Reception

**Monday, October 31
5:30 p.m. - 7:00 p.m.**

**San Jose Marriott,
Willow Glen**

The members of the Committee on Women in Plasma Physics invite you to join them for conversation regarding women physicists. Information will be on display representing the progress of women in plasma physics. All DPP attendees are welcome.

Physics of Plasmas Reception in Honor of All Authors and Invited Speakers

**Monday, October 31
5:30 p.m. - 7:30 p.m.**

**San Jose Marriott,
Ballroom Salon IV**

The Editors of Physics of Plasmas and AIP Publishing invite you to a reception in honor of the Invited, Tutorial, and Review speakers and the authors and referees who have contributed to the published record of the many advancements of plasma physics during the past year.

Shop Your Way Through San Jose San Pedro Square Market

For spectacular food, people watching, and live music, visit this popular Market located just 6 blocks from the Convention Center. You'll find arts and crafts, pastries and coffees, and so much more. Plus, you can feel great about supporting local farmers and artisans!

87 N. San Pedro Street, 408-444-7227,
www.sanpedrosquaremarket.com

University Fusion Association (UFA) General Meeting

**Monday, October 31
7:00 p.m. - 9:00 p.m.**

**San Jose Convention Center,
210 ABEF**

The University Fusion Association (universityfusion.org) is a nonprofit organization focused on the development of plasma science and technology for the long-term development of a new, environmentally attractive energy source using controlled thermonuclear fusion. The UFA advocates for university fusion energy and plasma science research and education by representing universities and university researchers to congressional policy makers and funding agencies, organizing planning workshops, and providing community leadership. The UFA General Meeting discusses issues of relevance to fusion energy and plasma science research in U.S. universities. The UFA meeting is open to all members of the community and all conference attendees.

The current president of UFA is Professor Uri Shumlak, University of Washington. He will be replaced in 2016 by the vice president Professor David Maurer, Auburn University.

DIII-D National Fusion Facility Campaign

**Tuesday, November 1
12:30 p.m. - 2:00 p.m.**

**San Jose Convention Center,
113**

The DIII-D National Fusion Facility is developing the concept of a Frontiers Science campaign through discussions with the U.S. university community. The proposal is to explore the use of a trial week of DIII-D run time in 2017, to address frontier and discovery plasma science questions. The goal is to significantly advance research questions outside the usual focus of fusion energy research. An independent university panel is supervising the development of the direction and focus of this campaign. We will be meeting with them informally on November 1 to discuss goals and ideas for this campaign. Feel free to come by and talk with us if you want more information, are interested in participating, or have ideas that may benefit from this initiative.

Town Meeting on Concerns of Junior Scientists

**Hosts: Richard Magee and
Eve Stenson**

**Tuesday, November 1
12:45 p.m. - 1:45 p.m.**

**San Jose Convention Center,
230 B**

This annual meeting offers junior scientists an opportunity to hear established scientists discuss topics relevant to job seekers in a Q&A panel discussion format. Potential topics include choosing which sector to seek employment, making yourself an attractive candidate, and maintaining a healthy work-life balance.

We are pleased to announce this year's panel:

- Cary Forest - Professor of Physics at the University of Wisconsin - Madison and Principal Investigator of the Wisconsin Astrophysics Laboratory

- Thomas Sunn Pedersen - Director of Stellarator Edge and Divertor Physics on the W7-X experiment and Professor of Physics at Greifswald University

- Matthew Stoneking - Professor of Physics at Lawrence University and Principal Investigator of the Lawrence Non-Neutral Torus II device

- David Leinweber - Lead Data Scientist at Tri Alpha Energy and former Wall Street quant and author of *Nerds on Wall Street*

Please plan to arrive a few minutes early, as we will start promptly at 12:45 p.m.

Hope to see you there!

Stay for the Invited Talk Session on Friday... Win a Prize in a Raffle!



**Apple iPad mini
MD529LL/A, 32GB**

At the DPP Meeting Registration Desk, ask for a numbered ticket stub for the raffle that takes place AFTER the Invited sessions on Friday

After the conclusion of the Friday morning sessions, on November 4 in room 210 ABEF David Mayerhofer and Earl Scime will draw three raffle tickets at random. The winners of the drawing must be present to win.



**Patriot 512GB Supersonic
Flash Drive**



**Skullcandy
Smokin' Earbuds**

DPP Education Events Excite San Jose

The APS-DPP Education Outreach Planning Committee visited San Jose in May to meet local educators and discuss the education events held in conjunction with the annual meeting. Led by DPP Education Chair Paul Miller (West Virginia University) and Committee Chair Deedee Ortiz (Princeton Plasma Physics Laboratory), committee members met with local education contacts to discuss ways of exciting the local community about plasma science education opportunities.

Local teachers will have their first chance to experience APS-DPP education with Science Teachers Day on Tuesday, November 1, when they will spend the morning learning about the fundamentals of fusion energy and plasma science. For the remainder of the day they will attend workshops about content of their choosing, focusing on such subjects as the nature of matter, the electromagnetic spectrum, Newton's Laws, and how to bring hands-on plasma activities into the classroom.

Teachers attending have praised the workshops and the environment. One delighted teacher noted, "Wow! It was so nice to get out of the classroom and rub elbows with real scientists!" A lunch with scientists and other teachers, sponsored by APS-DPP, guarantees a kind of networking rarely available to them.

The Plasma Sciences Expo, at the San Jose McEnery Convention Center, will be open for school groups on November 3 and 4 from 8:00 a.m. to 2:30 p.m., and for the general public on November 3 from 6:00 to 8:30 p.m. These evening hours were created not only for the general public, but for members of APS-DPP to sample the organization's outreach efforts.



Cherie Harper from the Contemporary Physics Education Project (CPEP) uses inexpensive materials and energy from enthusiastic students to simulate fusion. Sam Lightner (CPEP) appears in the background.

The Expo features hands-on experiments from national and international institutions, as well as local education and industrial venues. A number of new and local exhibitors have joined the event this year, including Lawrence Berkeley Laboratory, Los Alamos National Laboratory, Stanford University's Kavli Institute for Particle Astrophysics and Cosmology, and San Jose State University's Students for the Exploration and Development of Space.

Harmony Public Schools, a group of Texas high school students that proved one of the most popular booths at the 2014 Expo in New Orleans, will also be traveling to join in the fun. Harmony's Science Department Chair, Bilal Sengez, notes that despite the effort and long distance to San Jose, "I do want my kids to participate in this STEM expo. Because it is very important for them to improve their presentation and public speech skills."

Paul Miller wants APS-DPP members to know that the committee is always looking for new people to help maintain these important educational programs. Members can participate in planning, creating new workshops, or manning an exhibit at the Expo. "I love the excitement level of students exploring at the Expo," he says. "You can see and hear them learning." He invites all to visit the Expo to experience why one teacher described it simply as: "Awesome event."

Interested in joining the education team? Please contact Paul Miller at paul.miller@mail.wvu.edu.



Rick Lee of General Atomics creates a neon discharge plasma through the use of a volunteer electrical ground while some friends watch.



Physicist Dick Majeski of PPPL demonstrates spectral lines for a young student.



Arturo Dominguez of PPPL (right) shows a young student that he can alter the plasma in a fluorescent light tube by moving a magnet nearby.

Photos by Paul Rivenberg, MIT

Edge Coordinating Committee Meeting

**Tuesday, November 1
12:30 p.m. - 2:00 p.m.**

**San Jose Convention Center,
212 CD**

"Predicting the magnitude and scaling of the divertor heat load width"

Speakers:

S. Ku (PPPL) and X. Xu (LLNL)

Reports on progress on the 2016 FES Theory and Simulation Milestone Target will be given. Predicting the magnitude and scaling of the divertor heat load width in magnetically confined burning plasmas is a high priority for the fusion program and ITER. One of the key unresolved physics issues is what sets the heat flux width at the entrance to the divertor region. Massively parallel simulations using 3D edge kinetic and fluid codes have been used to determine the parameter dependence of the heat load width at the divertor entrance and to compute the divertor plate heat flux applicable to moderate particle recycling conditions. Comparisons are made with data from DIII-D, NSTX-U, and C-Mod. All DPP attendees are welcome.

LGBTQ Networking Dinner

**Tuesday, November 1
7:00 p.m. - 9:00 p.m.**

Join fellow LGBTQ plasma physicists and their families for an informal networking dinner on Tuesday, November 1. We'll meet in front of the DPP Meeting Registration Desk at the McEnery Convention Center at 7:00 p.m. and walk to a local restaurant. Please bring a method of payment for your dinner. RSVP encouraged, but not required.

Organizers: Derek Schaeffer (dereks@princeton.edu) and Eli Parke (eparke@ucla.edu).

Caregiver/Children's Room

**Monday - Thursday
October 31 - November 3
8:00 a.m. - 5:00 p.m.**

**Friday, November 4
8:00 a.m. - 12:30 p.m.**

Room 114

A caregiver/children's room will be available for parents and caregivers to use at no cost to attendees. The room is intended for parents or caregivers who have brought

infants or young children to the annual meeting. The room will be furnished with comfortable furniture and with a limited amount of toys, natural organic snacks, and beverages for young children.

Wireless Access

WiFi will be available in the San Jose Convention Center and in public space in the San Jose Marriott, Hilton, and Fairmont Hotels.

Mobile App

APS DPP is pleased to announce that the DPP 2016 mobile app for your Android or iOS device will again be available. This useful app contains the scientific program. You'll also be able to read the abstracts, view the speaker index, view maps of the hotel, create your own personal session schedule, and more!

For instructions on how to download the app, please see the flyers at the DPP Registration Desk or at the APS DPP Meeting Information Booth.

Fun Facts About San Jose

San Jose is California's oldest settlement, founded in 1777 as a farming community, and has 8 sister cities around the world.

DPP Banquet

Wednesday, November 2

**Reception: San Jose Marriott
Ballroom Foyer, 6:30 p.m.**

**Dinner: San Jose Marriott
Ballroom, 7:30 p.m.**

The official banquet of the DPP will be held on Wednesday evening. A cash-bar reception preceding the evening banquet at 6:30 p.m. will be held in the San Jose Marriott Ballroom Foyer. A subsidized banquet ticket can be purchased for \$40 at the registration desk Tuesday, November 1 up to 5:00 p.m. Tickets will be sold on a space-available basis and are non-refundable. Tickets must be presented for admission at the door to the banquet hall. Tickets will not be sold at the door. The banquet program will include presentation of the James Clerk Maxwell Prize, the John Dawson Award for Excellence in Plasma Physics Research, the Thomas H. Stix Award for Outstanding Early Career Contributions to Plasma Physics Research,

the Marshall N. Rosenbluth Outstanding Doctoral Thesis Award in Plasma Physics, the Ronald C. Davidson Award for Plasma Physics, recognition of newly elected APS Fellows, and the Landau Sptizer Award.



The banquet speaker is Jean Marie Deken, Archivist and Manager of the Archives History & Records Office and Research Library of the SLAC National Accelerator Laboratory.

**Non-Neutral Plasmas,
Fusion, and Beams:
The Legacy of Ron Davidson
A Special Invited Session: TI3
Thursday, November 3
San Jose Convention Center,
210 ABEF**

A special invited session will be held Thursday morning in recognition of the late Ronald C. Davidson and his many scientific contributions to the field of plasma physics. Six invited speakers present new advancements to the field of plasma physics and also offer perspectives on the influence and legacy of Ronald C. Davidson's seminal contributions to the physics of non-neutral plasmas, fusion energy science, and charged particle beams. Invited speakers are Jonathan S. Wurtele, Hong Qin, James R. Danielson, Jonathan Menard, Chris Crabtree, Thomas M. O'Neil.

**Topical Group on
Plasma Astrophysics (GPAP)
Business Meeting**

**Wednesday, November 2
12:30 p.m. - 2:00 p.m.**

**San Jose Convention Center,
212 AB**

GPAP will hold their annual business meeting during the DPP annual meeting in San Jose. The GPAP meeting is open to all annual meeting attendees.

Division of Plasma Physics (DPP) Business Meeting

**Wednesday, November 2
5:15 p.m. - 6:15 p.m.**

**San Jose Convention Center,
211 CD**

The business meeting of the Division of Plasma Physics will include reports of actions undertaken by DPP on issues important to our membership. New items of business will be considered in the following order: (1) Written motions, together with any supporting arguments, received by the Secretary-Treasurer, Professor Daniel Dubin, at the DPP Registration Desk, San Jose Convention Center, before noon on Monday, October 31, or which were emailed to Professor Dubin (ddubin@physics.ucsd.edu) by noon on Friday, October 28, 2016. Copies of such material will be displayed on a bulletin board near the DPP registration area in order to give members reasonable notice in case they wish to participate in the discussion and vote on such motions. (2) Written motions submitted to the Secretary-Treasurer prior to the start of the business meeting. (3) Other new business not included in (1) or (2).

HEDSA Annual General Meeting

**Wednesday, November 2
12:30 p.m. - 2:00 p.m.**

**San Jose Convention Center,
212 AB**

The High Energy-Density Science Association (HEDSA) invites members and interested parties to attend their Annual General Meeting in Room 212 AB of the San Jose Convention Center. Representatives from funding agencies will be on hand to share their perspectives on High Energy-Density research.

Housing Information

San Jose Marriott Hotel
\$234 single/double/triple/quad

Hilton San Jose Hotel
\$234 single/double

Fairmont San Jose Hotel
\$235 single

The prevailing government rate is \$206 per room per night.

Please join us at the 58th Annual Meeting of the American Physical Society Division of Plasma Physics to review the Findings and Recommendations of the 2016 OMEGA Laser Users Group Workshop

Tuesday, November 1, 2016 from 6:00 p.m. to 7:30 p.m.

San Jose Convention Center, Room 211 CD



Meet the Editors of the APS Journals

Tuesday, November 1
5:00 p.m. - 6:30 p.m.

San Jose Convention Center,
Market Terrace

The editors of APS journals cordially invite you to join them for conversation and refreshments at a reception. Your questions, suggestions, compliments, and complaints about the journals are welcome. All meeting attendees are invited.

Student Appreciation Reception

Tuesday, November 1
6:00 p.m. - 7:00 p.m.

San Jose Convention Center,
211 AB

Please plan to attend a complimentary reception in honor of high school and undergraduate students. Dr. David Mayerhofer, DPP Chair, cordially welcomes all DPP meeting attendees, and encourages their open discussion on topics of interest to students of plasma physics. Student Poster Award recipients will be announced during the reception. Student advisors are particularly encouraged to attend. Refreshments will be served.

Review, Tutorial and Invited Speaker Poster Sessions

San Jose Convention Center,
Exhibit Hall 1

Poster versions of review, invited, and tutorial papers are optional and are scheduled Monday through Friday, in the following half-day session, in a designated area of Exhibit Hall 1. For example, the Monday morning review and invited talks may also be presented as posters in the Monday afternoon poster session. This option will be available on Monday morning for invited papers scheduled on Friday morning, November 4.

What to Do in San Jose San Jose Museum of Art

Located on South Market Street next to the Plaza de Cesar Chavez Park and the Circle of Palms Plaza in downtown San Jose, the museum houses more than 2,000 works in several media forms, and is dedicated to exhibiting late 20th century and 21st century works of art created by West Coast artists.

110 South Market Street,
408-271-6840, www.sjmusart.org

Plasma Science Christian Fellowship

Wednesday, November 2
6:45 a.m. - 7:45 a.m.

San Jose Convention Center,
211 CD

Town Meeting on Plasma Physics at the National Science Foundation

Chair: Vyacheslav Lukin,
National Science Foundation

Wednesday, November 2
1:00 p.m. - 2:00 p.m.

San Jose Convention Center,
230 C

We invite you to a town meeting on the role of the National Science Foundation (NSF) in supporting basic and applied research in plasma physics in the U.S. The overarching goal of NSF is to promote the progress of science and to enable training of the next generation of scientists and engineers at U.S. colleges and universities. In this context, the role of the NSF Physics Division in leading the nearly 20-year-old NSF/DOE Partnership in Basic Plasma Science and Engineering is an example of the long history of NSF support for basic plasma physics research. Yet, the NSF interest in maintaining a healthy university research base in plasma sciences extends across the Foundation. This Town Meeting will provide a chance to discuss the full range of relevant NSF funding opportunities, and to begin a conversation on the present and future role of NSF in stewarding basic plasma science and engineering research. We would like to particularly encourage early career scientists and graduate students to participate. All DPP attendees are invited to join what we hope to be a lively discussion.

What to do in San Jose Rosicrucian Egyptian Museum

Sharing the wonders of ancient Egypt with visitors, the museum was established by the Ancient Mystical Order Rosae Crucis, which was founded by Dr. Harvey Lewis. The museum was built in the ancient Egyptian style and sits in an Egyptian revival park. Along with the largest collection of ancient Egyptian artifacts in the Western United States, the museum also contains an impressive planetarium.

1660 Park Avenue,
408-947-3635, www.egyptianmuseum.org

2016 DPP Election Results

Vice-Chair:

David Newman,
University of Alaska-Fairbanks

Secretary-Treasurer

Hui Chen,
Lawrence Livermore National Laboratory

Executive Committee Members:

Saskia Mordijck,
College of William and Mary

Vyacheslav Lukin,
National Science Foundation

Johan Frenje,
Massachusetts Institute of Technology

Code of Conduct for APS Meetings

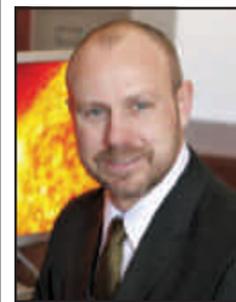
It is the policy of the American Physical Society (APS) that all participants, including attendees, vendors, APS staff, volunteers, and all other stakeholders at APS meetings will conduct themselves in a professional manner that is welcoming to all participants and free from any form of discrimination, harassment, or retaliation. Participants will treat each other with respect and consideration to create a collegial, inclusive, and professional environment at APS Meetings. Creating a supportive environment to enable scientific discourse at APS meetings is the responsibility of all participants.

Participants will avoid any inappropriate actions or statements based on individual characteristics such as age, race, ethnicity, sexual orientation, gender identity, gender expression, marital status, nationality, political affiliation, ability status, educational background, or any other characteristic protected by law. Disruptive or harassing behavior of any kind will not be tolerated. Harassment includes but is not limited to inappropriate or intimidating behavior and language, unwelcome jokes or comments, unwanted touching or attention, offensive images, photography without permission, and stalking.

Violations of this code of conduct policy should be reported to meeting organizers, APS staff, or the APS director of meetings. Sanctions may range from verbal warning, to ejection from the meeting without refund, to notifying appropriate authorities. Retaliation for complaints of inappropriate conduct will not be tolerated. If a participant observes inappropriate comments or actions and personal intervention seems appropriate and safe, they should be considerate of all parties before intervening.

Code of Conduct Hotline 301-209-3675

Professor Greg Howes recipient of the inaugural Ronald C. Davidson Award for Plasma Physics from AIP Publishing



Gregory Howes, associate professor in the Department of Physics and Astronomy at the University of Iowa, has won the 2016 Ronald C. Davidson Award for Plasma Physics. The new award is provided

by AIP Publishing in honor of Ronald Davidson's exceptional contributions as editor-in-chief of Physics of Plasmas for 25 years. The annual award of \$5,000 is presented in collaboration with the APS Division of Plasma Physics and recognizes outstanding plasma physics research by a Physics of Plasmas author.

Professor Greg Howes was selected from among the most highly cited and most highly downloaded articles from Physics of Plasmas during the past five years. The paper titled "A weakened cascade model for turbulence in astrophysical plasmas," Phys. Plasmas, 18, 102305 (2011), was co-authored with Dr. Jason TenBerge and Professor William Dorland at the University of Maryland. The paper presented a refined model for MHD turbulence that included nonlocal shearing interactions from large scale motions on the nonlinear energy cascade in the small scale dissipation range. This paper influenced numerous authors in their continued study of the multiscale nature of energy transfer in Alfvén wave turbulence in solar wind and astrophysical plasmas.

This year's award selection committee, consisting of Nathaniel Fisch (representing the APS DPP) and Martin Greenwald, Predhiman Kaw, Robert McCrory, and Frank Verheest from the Physics of Plasmas Editorial Board, reviewed the top-cited articles and nominated several authors from across the topical focus areas of Physics of Plasmas. The final selection was made by vote of the full Editorial Board.

The presentation of the first Ronald C. Davidson Award for Plasma Physics will be presented to Professor Greg Howes during the DPP Banquet by Dr. John Haynes, Chief Executive Officer of AIP Publishing, and Ronald Davidson, Jr., the son of the late Ronald C. Davidson.

Evaluation Form for 2016 APS DPP Annual Meeting

Please give us your candid opinion of the 2016 DPP annual meeting to aid in future planning. Base your evaluation on a comparison to previous APS DPP and non-APS scientific meetings. You may use a separate page for additional comments.

___APS member ___Non-member Did you attend last year in Savannah? Yes No
 Workplace: ___university ___gov't. lab ___industry ___self employed ___student ___retired
 Plasma physics subfield: _____ State (or country) of residence: _____

Check all factors that most influenced your decision to attend this meeting:
 ___ meeting registration cost ___ hotel cost ___ geographical location ___ quality of program
 ___ breadth of program ___ interaction with colleagues ___ attend mini-conference ___ job fair
 Did you present a paper? ___ Did you co-author one or more papers presented by others? ___

Evaluate on a score of 5 = excellent and 1 = poor (please circle):

<u>Scientific content and organization</u>	5	4	3	2	1
• range of topics	5	4	3	2	1
• review talks	5	4	3	2	1
• invited sessions	5	4	3	2	1
• tutorial sessions	5	4	3	2	1
• poster sessions	5	4	3	2	1
• mini-conferences	5	4	3	2	1
• scheduling (overlap)	5	4	3	2	1
• bulletin	5	4	3	2	1
• mobile app	5	4	3	2	1
• chronicle content	5	4	3	2	1
• meeting announcements	5	4	3	2	1

Meeting logistics

• location (city/state)	5	4	3	2	1
• length of meeting	5	4	3	2	1
• meeting rooms layout	5	4	3	2	1
• abstract submission process	5	4	3	2	1
• registration services	5	4	3	2	1
• AV equipment	5	4	3	2	1
• speaker ready room	5	4	3	2	1

Events / Amenities

• education/outreach program	5	4	3	2	1
• job fair	5	4	3	2	1
• résumé help desk	5	4	3	2	1
• exhibitors	5	4	3	2	1
• wireless service	5	4	3	2	1
• special events	5	4	3	2	1
• banquet	5	4	3	2	1
• beverage breaks	5	4	3	2	1
• peer interaction	5	4	3	2	1
• hotel accommodations	5	4	3	2	1
• hotel location	5	4	3	2	1

Please return this form to the DPP Registration Desk or email comments to:

Saralyn Stewart, DPP Administrator email: stewart@physics.utexas.edu

Call for Nominations for 2017 Prize and Awards

Deadline: Monday, April 3, 2017

A prize or an award presented by APS DPP is one of the highest honors a physicist can receive. Membership in APS or DPP is not required for nomination or selection for a prize or an award unless specified in the particular prize/award criteria. The nominator does have to be an APS member.

DPP annually solicits nominations for one prize and three awards. Every triennial, (once every three years) DPP solicits nominations for the Katherine E. Weimer Award (a DPP award). The deadline for receipt of all nominations is Monday, April

3, 2017. Please take time to nominate exceptional DPP colleagues in 2017.

Anyone except a member of the selection committee may submit one nomination or seconding letter for each prize or award in any given year.

Go to this web address: <http://www.aps.org/programs/honors/nomination.cfm> for additional Nomination Guidelines.

The nomination package must be submitted by Monday, April 3, 2017. Acknowledgement of receipt can be requested. The DPP dissertation award has other requirements in addition to those listed on the APS Nomination Guidelines website, so check for descriptions of the awards to which you are making a nomination.

James Clerk Maxwell Prize for Plasma Physics
 Fred Skiff, Chair
 University of Iowa
frederick-skiff@uiowa.edu

John Dawson Award for Excellence in Plasma Physics Research
 Scott Baalrud, Chair
 University of Iowa
scott-baalrud@uiowa.edu

Marshall N. Rosenbluth Outstanding Doctoral Thesis Award in Plasma Physics
 Debra Callahan, Chair
 Lawrence Livermore National Laboratory
dcallahan@llnl.gov

Thomas H. Stix Award for Outstanding Early Career Contribution to Plasma Physics Research
 Melissa Douglas, Chair
 Los Alamos National Laboratory
mdouglas@lanl.gov

Katherine E. Weimer Award for Women in Plasma Science
 Carl Sovinec, Chair
 University of Wisconsin
csovinec@cae.wisc.edu

Notes/Doodles

Designed by:



jdnava.com