# PHYSICS OUTREACH & ENGAGEMENT

## Letter from the Chair

#### Dear FOEP members

I am writing as the Chair of the Forum on Outreach and Engaging the Public. Explaining the importance of Physics to the Public, in general is a very important and worthwhile activity. It is also very satisfying at the personal level. If you are reading this, you probably don't need my encouragement and you are probably already involved in some related activities. This is the purpose of FOEP and I would like to encourage you to participate in our activities. It is your Forum!

You may want to ask: Why "engage"? Engagement implies interacting with the public in ways that stimulate thought, activity, follow up, and lasting positive impressions. In other words, FOEP hopes to engage the public as active supporters and aficionados of, and participants in, physics. We see this as a battle for the hearts and minds (and hands) of the public as a way to maintain the relevance of, and their passion for, physics. Engagement is something different than education or a focus on particular issues; engagement is active involvement that takes advantage of the full spectrum of venues where the public can be found. Engagement is part outreach, part informing, and part communicating; but it is also more than these things combined. Engagement is an aspiration to establish a two-way connection between APS members and the general public.

This new Forum started its activities with a big bang. As outlined in this, our first Newsletter, there are many activities under way in a variety of configurations. We are very interested in any activities that try to touch the large majority of the public that has no idea what we do. Many of us (certainly I) feel that any activities, no matter how small or local, are good and worthwhile pursuing. As long as they don't do harm!

Continued on page 2

#### JOIN US

To join FOEP at no cost prior to renewing your APS membership, send an email to <a href="membership@aps.org">membership@aps.org</a> with your request to add FOEP to your membership. Please note that if you currently belong to two or more forums, FOEP will be added at no charge for the remainder of your membership term. On your next membership renewal notice, you will see a Forum subtotal that will include \$8 for every Forum membership over two.

## VOL. 1 NO. 1 **MARCH 2014** In this issue Letter from the chair Hi! -1-Neil deGrasse Tyson at the April meeting -2-Happenings at the April and March Meetings Shockley at the March Meeting - A Play Physics for Everyone at the March Meeting! Funding \$\$ -5-Websites info Call for Fellows, Who Elections, & More

A publication of The Forum on Outreach and Engaging the Public - FOEP -A forum of the American Physical Society We hope that FOEP will serve as a clearing house and a source of information for those that wish, feel the need, and/or think that this activity is important. So any relevant information regarding: funding, activities, examples, successful and unsuccessful experiments, are welcome. The type of (now considered) standard activities such as performing arts (theater, dance, live shows), motion pictures, TV, books, and cartoons have been used for years to illustrate the importance of physics with various degrees of success. In the last 10 years, new forms have evolved and we would like to encourage especially the younger FOEP members to actively participate and explore these. I believe that activities such as YouTube, Twitter, Web sites, Facebook, Smart Phones, Tablets, etc. are largely unexplored and we should be leading the charge.

Physics is a vital activity for the advancement of science, the development of technology and is the basis for (probably) all modern life. It unquestionably improved our lives, but unfortunately the general public doesn't know this. It is our responsibility to explain it. That is what FOEP is all about!

Ivan Schuller

Hi!

Letter from the Chair, continued

the Chair, continued

## Neil deGrasse Tyson at the April Meeting

#### TALES FROM THE TWITTERVERSE

Neil deGrasse Tyson, American Museum of Natural History

The public's access to science has historically occurred through traditional conduits of communication such as television documentaries, and media reports. But in the past five years social media has arisen as a means of attracting people who would have never imagined they had any science at all. The results are stunning and unexpected, with millions of people responding to various offerings of science made in these media. Twitter and Facebook lead the way, but other internet social media have proven potent as well, including YouTube, Reddit, Google+, and more broadly, the blogosphere. We give first-hand stories and accounts of forays on this landscape and offer suggestions on how such efforts may benefit the long-term health of the physical sciences from having cultivated public support at its deepest levels.

Tyson is a member of the Department of Astrophysics at New York City's American Museum of Natural History, where he also serves as Director of the Hayden Planetarium.

Neil deGrasse Tyson will also be giving a plenary session. Session Q1: Plenary Session II: Treasures From the Cosmic Frontier Room: Chatham Ballroom A/B, April 7, 2014, 8:30AM - 9:06AM This FOEP sponsored, invited talk will be held at the 2014 April Meeting, April 4-8, Savannah, Georgia. Look out for an announcement for the exact venue and time.



## Happenings at the April Meeting Savannah, Georgia April 4 – 8, 2014

#### Join us for the April Meeting Public Lecture

Saturday April 5th at 8 pm

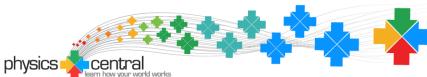
"Fireworks at the Galactic Center black hole?"

Stefan Gillesse, Max Planck Institute for Extraterrestrial Physics

# **Special Showing of the Documentary "Particle Fever"** 8:00pm Monday, April 7th

This film gives us a front-row seat to the launch of the biggest and most expensive scientific experiment in human history, the Hadron Collider, where 10,000 scientists from 100 countries joined forces for a single goal—to find the sub-atomic particle that created all the matter in the universe.

Visit the Physics Central table for more information on both of these events.





## Happenings at the March Meeting Denver, Colorado March 3 – 7, 2014

#### **Outreach Sessions**

#### **Session G3: Outreach and Diversity**

11:15 AM-2:15 PM, Tuesday, March 4, 2014. Room: 107

Sponsoring Unit: FEd Chair: David Rench, Pennsylvania State University

# Session L38: Invited Session: History of the Communication of Science to the Public

8:00 AM–11:00 AM, Wednesday, March 5, 2014. Room: 709/711 Sponsoring Units: FHP, FOEP Chair: Brian Schwartz,

City University of New York

#### Session M14: Invited Session: Physics for Everyone

11:15 AM-2:15 PM, Wednesday, March 5, 2014. Room: 301-303

Sponsoring Unit: DMP

Interested? See details below



# Shockley at the March Meeting – A Play

A Staged Reading of the Play: W=S:Transistor Shock

Wednesday, March 5, from 8:00 pm to 9:30 pm Sheraton Denver DowntownGovernor's Square 14

Who Should Attend? All are welcome.

Overview: A university is offered funding, but only if they'll name a building for William Shockley. William Shockley was an American physicist and inventor who won the Nobel Prize for his work on the transistor, but was infamous for his support of eugenics. What do they do?

Join us for a dramatic staged reading of *Transistor Shock*, a new play by Ivan K. Schuller and Adam J. Smith, performed by the Boulder Ensemble Theatre Company. After the performance, the director, actors, and playwrights will be available for audience discussion.

http://www.aps.org/meetings/march/events/farmhall.cfm



# Physics for Everyone at the March Meeting

Session M14: Invited Session: Physics for Everyone

Sponsoring Units: DMP

Room: 301-30

Wednesday,	M14.00001: The Universe: Beginnings, Ending
March 5, 2014	and Our Miserable Future
11:15AM-11:51AM	Invited Speaker: Lawrence Krauss
Wednesday,	M14.00002: Attosecond Physics - Probing and
March 5, 2014	Controlling Matter on Its Natural Time Scale
11:51AM-12:27PM	Invited Speaker: Anthony F. Starace
Wednesday,	M14.00003: Quantum Matter Meets Living
March 5, 2014	<u>Matter</u>
12:27PM - 1:03PM	Invited Speaker: Ronald Walsworth
Wednesday,	M14.00004: Journey to the Center of the Earth
March 5, 2014	
1:03PM - 1:39PM	Invited Speaker: David Stevenson
Wednesday,	M14.00005: Higgs and Beyond
March 5, 2014	
1:39PM - 2:15PM	Invited Speaker: James Proudfoot



# \$\$ Try These

AAPT Bauder Fund Grants for Physics Outreach Programs

Can provide funds to obtain and or build and support traveling exhibits of apparatus.

http://www.aapt.org/programs/grants/bauderfund.cfm

APS grants for public outreach and informing the public

APS annually awards several grants up to \$10,000 to help APS members develop new physics outreach activities. Programs can be for traditional K-12 audiences or projects for engaging the public.

http://www.aps.org/programs/outreach/index.cfm

SPS Marsh W. White Awards

Marsh W. White Awards are made to Society of Physics Students Chapters "to support projects designed to promote interest in physics among students and the general public." <a href="http://www.spsnational.org/programs/awards/white.htm">http://www.spsnational.org/programs/awards/white.htm</a>

APS New York State Section Outreach Grants

The purpose of this program is to support projects that increase public understanding and appreciation of physics particularly for K-12 students. The outreach committee will support projects up to a maximum of \$1,000 with some additional funds available for personal expenses. <a href="http://www.aps.org/units/nyss/outreach/index.cfm">http://www.aps.org/units/nyss/outreach/index.cfm</a>

SPIE education and outreach grants for photonics and optics

As part of its education outreach mission, SPIE provides support for optics and photonics related education outreach projects.

http://spie.org/x36692.xml

## What Other Countries Are Doing: Web Sites Related to Science Awareness

info

Compiled by Y. Bruynseraede and I. K. Schuller

The communication and explaining of physics to the public is important for the future of the nation and the world. It is also important to secure future funding for research activities. The following web sites describe outreach activities in foreign countries.

German Physical Society:

http://berlin12.dpg-tagungen.de/programm/index.html

Physics Education at the European Physics Society (EPS) http://education.epsdivisions.org/useful-links

**EPS Outreach Prizes:** 

http://eps-hepp.web.cern.ch/eps-hepp/other-prize-awards.php

European Science Open Forum: http://www.esof.eu/

The Foundation of Euroscience:

http://www.esof.eu/index.php?section=19-euroscience

**European Physics Education Network:** 

http://www.eupen.ugent.be/

International Particle Physics Outreach Group:

http://ippog.web.cern.ch/ippog/

Europlanet Outreach: http://www.europlanet-eu.org/outreach/

Public awareness nuclear science:

http://www.nupecc.org/pans/index.html

Some examples of Public Outreach initiatives:

http://www.kcl.ac.uk/artshums/depts/classics/about/outreach.aspx

http://www.fp7-hamlet.eu/index.php/hamlet/public-outreach

Museum: http://www.explora.cl/

Two be sites started by Harry Kroto

http://www.vega.org.uk/ and www.geoset.fsu.edu



Global Science Awareness

Here are some websites to learn about awareness efforts around the world

## Call for Fellows, Elections, & More

#### **FELLOWS:**

Any active APS member is eligible for nomination and election to Fellowship. The criterion for election is exceptional contributions to the physics enterprise; e.g., outstanding physics research, important applications of physics, leadership in or service to physics, or significant contributions to physics education. Fellowship is a distinct honor signifying recognition by one's professional peers.

Each nomination is evaluated by the Fellowship committee of the appropriate APS division, topical group or forum, or by the APS General Fellowship committee. After review by the full APS Fellowship Committee, the successful candidates are elected by APS Council.

The membership of APS is diverse and global, and the Fellows of the APS should reflect that diversity. Fellowship nominations of women, members of underrepresented minority groups, and scientists from outside the United States are especially encouraged.

# Who

#### **ELECTIONS:**

Soon elections will be held for several FOEP officer positions. Please vote when you get the email announcing the ballot.

#### WANT TO GET MORE INVOLVED?

Email someone on the executive committee. Contact info can be found at: The Forum on Outreach and Engaging the Public at <a href="http://www.aps.org/units/foep/governance/officers/index.cfm">http://www.aps.org/units/foep/governance/officers/index.cfm</a>

#### **NEWSWORTHY ITEMS?**

Have an idea for something to include in the Newsletter? An outreach activity, an idea for an article, best practices, what does and doesn't work, or something else. Please send your ideas to the newsletter editor at <a href="heidedoss@gmail.com">heidedoss@gmail.com</a>

#### **Executive Committee**

CHAIR: IVAN SCHULLER (01/13 - 12/14) UNIV OF CALIFORNIA - SAN DIEGO

CHAIR ELECT: MICHAEL BARNETT (01/14 - 12/14) LAWRENCE BERKELEY NATL LAB

PAST CHAIR: PAUL CHAIKIN (01/13 - 12/14) NYU

SECRETARY/TREASURER: E DAHLBERG (01/12 - 12/14) UNIV OF MINN - MINNEAPOLIS

**MEMBER AT LARGE:** DIANDRA LESLIE-PELECKY (01/14 - 12/14)

MEMBER AT LARGE: BETH PARKS (01/12 - 12/14) COLGATE UNIVERSITY

MEMBER AT LARGE: SIDNEY PERKOWITZ (01/13 - 12/14) EMORY UNIVERSITY

MEMBER AT LARGE: BRIAN SCHWARTZ (01/13 - 12/14) CUNY-GRADUATE CTR

Forum on Outreach and Engaging the Public American Physical Society

> One Physics Ellipse College Park, MD 20740-3844

#### [Recipient]

Address Line 1 Address Line 2 Address Line 3 Address Line 4

Physics Outreach & Engagement is a non-peer-reviewed newsletter of the Forum on Outreach and Engaging the Public, a forum of the American Physical Society. It provides information and news related to the Forum and provides a medium for Forum members to exchange ideas. Opinions expressed are those of the authors alone and do not necessarily reflect the views of the APS or of the Forum. If you would like to submit an article, commentary, letter, review, or contact us about another issue, please email the editor Heide Doss, heidedoss@gmail.com.