

Arkansas Academy of Science

AAS Newsletter

Volume 1, Issue 1

Newsletter Editor: Marc S. Seigar

Spring 2012

96th Annual Meeting of the Academy at SAU!

The 96th annual meeting of the Arkansas Academy of Science will be held April 13 - 14, 2012, hosted by Southern Arkansas University.

Friday Evening will feature an informal mixer, poster presentations, dinner and keynote speaker (Nobel Laureate Prof. David Gross of the University of California, Santa Barbara). Oral presentations will be given Friday afternoon and Saturday morning, and poster presentations will be Friday afternoon.

Participants will have the option of making an oral or poster presentation. Both electronic registration and abstract(s) must be received no later than March 5, 2012. Registration and abstract submission is online.

March 12 is the deadline for payment of fees associated with the meeting.

On April 13-14, your journal manuscripts are due to Managing Editor or Editor-In-Chief at the meeting for inclusion in the JAAS Volume 66. Editorial staff will have a table near registration.



PLEASE read instructions for prospective authors found at the Academy website:

<http://arkansasacademyofscience.org/> (meetings tab)

MEETING WEBSITE for ONLINE

REGISTRATION and **ABSTRACTS**:

<http://peace.saumag.edu/AAS/>

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AAS Business Meeting

The annual business meeting for ALL members of the Academy will take place Saturday at 11:45am after the final session. Please make travel plans that will allow you to stay and attend the business meeting. The meeting is for you, and your attendance, contributions, expertise, and insights make the Academy better.

Academy Officers on the AAS Executive committee will convene on Friday, April 13th at 10:00 am Science Center (SC) with the UAM-LOC before the start of the AAS meeting sessions.

Information For Presenters

Presenters should clearly communicate any special equipment needs at the time of their registration. Computer projection systems for PowerPoint will be available.

All PowerPoint presentations must be on CD or USB flash drive (preferable) and must be loaded onto the computer available in the session room **prior to the start of the session**. Therefore, if you plan to use PowerPoint, you must be at the session at least 30 minutes prior to the start of the session (i.e., if your talk is at 10:15, then you are in a morning session that begins at 9:00 a.m. You must be there at 8:30 AM to load your talk onto the computer).

Abstract submission will be open for the 2012 AAS meeting soon. Abstracts must be submitted for both oral and poster presentations. Oral presentations are limited to 15 minutes (12 minute talk, 3 minutes for questions).

Posters are limited to 3 feet 9 inches in both width and height. Vertical display boards of a cork-like material will be available for poster displays. Posters will be presented Friday.

Abstract submission and registration are online. Abstracts will be posted online within one week after they are received. Abstracts must be received **by 12 noon March 5** for both oral presentations

and posters! Be sure to submit your registration form as well.

In order to quickly post abstracts online, please submit your abstract using [the online submission form](#). Formatting such as italics and line breaks are lost on the form, but **email submission of the abstract in MS Word (in addition to using the online form) will let us retain formatting in the printed program**.

JAAS Publication

Manuscripts for publication in the Journal, based on a presentation given at the meeting, are due at the time of the presentation. Manuscripts should be emailed to the Managing Editor of the Journal (Dr. Ivan Still, istill@atu.edu) two days before the meeting. An electronic copy (on CD or flash drive) and hard copy should be handed to the editorial staff the day of the meeting. One of the authors must be an AAS member to publish in the Journal.

PLEASE read instructions for prospective authors found on the Academy website

<http://www.ArkansasAcademyofScience.org>
(Journal tab)

LOCAL ORGANIZING COMMITTEE AT SAU

Abdel Bachri, Engineering Physics—LOC Chair

agbachri@saumag.edu

Scott White, Chemistry

srwhite@saumag.edu

Shawn Krosnick, Biology

sekrosnick@saumag.edu

Tim Schroeder, Chemistry

tsschroeder@saumag.edu

Pierre Boumtje, Agriculture

pjboumtje@saumag.edu

Keynote Speaker: Prof. David Gross

The 2004 Nobel Prize in Physics was awarded to David Gross, professor of physics and director of the Kavli Institute for Theoretical Physics at the University of California, Santa Barbara, and two others. The award recognizes the key discovery that explained how quarks, the elementary constituents of the atomic nucleus, are bound together to form protons and neutrons. In 1973, Gross and Wilczek, working at Princeton, showed that the attraction between quarks grows stronger as the quarks are separated. This discovery, known as “asymptotic freedom”, established quantum chromodynamics (QCD) as the correct theory of the strong nuclear force, one of the four fundamental forces in Nature.

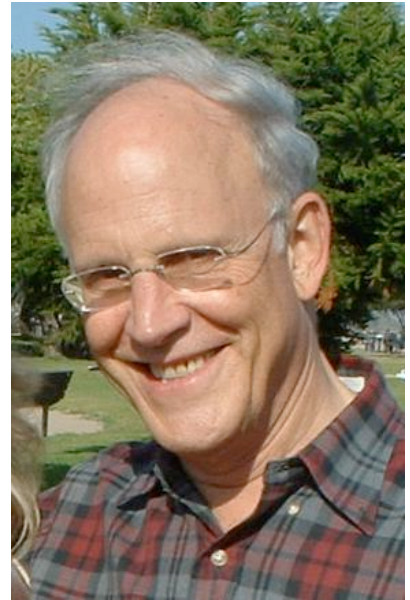
Of the four fundamental forces – the others besides the strong nuclear force are electromagnetism, the weak nuclear force (responsible for the decay of radioactive nuclei), and gravitation – the strong force was by far the most poorly understood in the early 1970s. According to the Royal Swedish Academy of Sciences the “discovery was expressed in 1973 in an elegant mathematical framework that led to a completely new theory, QCD”. With this discovery, physics was brought one step closer to fulfilling Einstein’s grand dream, that is to formulate a theory comprising gravity as well – a unified theory for everything.

David Gross received his Ph.D. from the University of California, Berkeley in 1966 and then was a Junior Fellow at Harvard. In 1969 he went to Princeton where he was appointed Professor of Physics in 1972. He is the recipient of numerous awards including the J. J. Sakurai Prize of the American Physics Society in 1986, a MacArthur Foundation Fellowship Prize in 1987, the Dirac Medal in 1988, the Oscar Klein Medal in 2000, and the Harvey Prize of the Technion in 2000, France’s highest scientific honor the Grand Medalle D’Or (the Grand Gold Medal), and the High Energy and Particle Physics Prize of the European Physical Society in 2003. He has received two honorary Degrees.

The title of Prof. Gross’s presentation will be:

THE FRONTIERS OF FUNDAMENTAL PHYSICS

At the frontiers of physics we search for the principles that might unify all the forces of nature and we strive to understand the origin and history of the universe. In this lecture I shall describe some of the questions that we ask and some of the proposed answers. I shall also discuss what it might mean to have a final theory of fundamental physics and whether we are capable of discovering it.



Tentative Schedule of Events

2011 AAS Executive Officers

<u>Time</u>	<u>Event</u>	<u>Location</u>
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Friday April 13

10:00	Executive Committee Meeting	TBD
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11:00-5:00	Registration	
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12:00-12:30	Judges and Session Chairs	
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2:00 – 5:30	Poster Session	
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1:00 – 2:30	Oral Session 1	
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2:30-3:00	Break	
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3:00 – 4:30	Oral Session 2	
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4:30-5:30	Mixer	
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5:30-6:30	Keynote Lecture	
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6:00 – 8:30	Banquet	
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Saturday April 14

8:00 – 10:00	Registration	
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8:30 – 10:30	Oral Session 3	
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10:30 – 11:00	Meeting of Judges	
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11:00 – 11:30	Break	
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11:30-11:45	Awarding of Prizes	
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11:45-1:00	Membership Meeting**	
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****All members of the Academy are invited and strongly encouraged to participate in the AAS business meeting.****

A copy of this Newsletter as well as previous editions are available ONLINE in the AAS members web pages accessed through the public portal at URL

<http://www.ArkansasAcademyofScience.org>

Dr. A. Kurt Grafton President (2011-2012)
Department of Chemistry
Lyon College
2300 Highland Road
Batesville, AR 72503
Phone: (870) 307-7315 E-mail: anthony.grafton@lyon.edu

Dr. Marc S. Seigar President-Elect
Department of Physics & Astronomy
University of Arkansas at Little Rock
2801 S. University Avenue
Little Rock, AR 72204
Phone: (501) 569-8964 E-mail: mxseigar@ualr.edu

Dr. Bill Doria Vice President & webmaster
Division of Science and Mathematics
University of the Ozarks
415 N. College Avenue
Clarksville, AR 72830
Phone: (479) 979-1489 E-mail: bdoria@ozarks.edu

Dr. Mostafa Hemmati Treasurer & Journal Editor
Dept. of Physical Sciences
Arkansas Tech University
1701 N. Boulder Ave.
Russellville, AR 72801-2222
Phone: (479) 968-0340 E-mail: mhemmati@atu.edu

Dr. Ivan Still Journal Managing Editor
Dept. of Biological Sciences
Arkansas Tech University
1701 N. Boulder Ave.
Russellville, AR 72801-2222
Phone: (479) 968-0294 E-mail: istill@atu.edu

Dr. Jeff Robertson Secretary
Dept. of Physical Sciences
Arkansas Tech University
1701 N. Boulder Ave.
Russellville, AR 72801-2222
Phone: (479) 968-0293 E-mail: jrobertson@atu.edu

Dr. Collis Geren Historian
University of Arkansas
Fayetteville, AR 72701
Phone: (479) 575-5901
E-mail: cgeren@uark.edu

Aren't you the right person to step up to a leadership role?

Journal of the AAS (JAAS):

Reviewers Solicited

Persons interested in acting as Associate Editors of the Journal or Reviewers in their field of expertise of manuscripts submitted for publication in the AAS Journal are needed.

Please contact Mostafa Hemmati (mhemmati@atu.edu) or Ivan Still (istill@atu.edu) by e-mail and provide your contact information and area(s) of expertise. Please be specific about the individual subjects you wish to review (e.g. not just Botany, but herbaceous plants, or woody plants, or aquatic plants; and not just vertebrates, but reptiles, particularly snakes).

Comments for Prospective Authors

Authors are required to use the instructions found on the AAS website in preparing manuscripts submitted for publication in the Arkansas Academy of Science's Journal. The figures, graphs, diagrams, pictures, etc. must be inserted inside the manuscript. The electronic copy of the manuscript should be a single file. A caption should be written under each figure and above each table. To view and/or download new instructions visit the Academy website.

This new process means that a significant reduction in typing and editing takes place away from the authors direct control. **The final product submitted by the authors will be the published document in the Journal** (What-You-See-Is-What-You-Get, WYSIWYG). Or more to the point, what authors submit is what gets published. The editor and printer does no typing or editing and only acts to copy and bind the Journal.

Awards competition for student presentations at the AAS Meeting

Students commonly present results of their research at the annual meetings of the Arkansas Academy of Science. Our award competition seeks to recognize outstanding presentations made by those competing students. Categories for oral presentations include Environmental Science, Life Science, and Physical Science, at both Undergraduate and Graduate levels of competition. Certificates and cash awards may be given for first place (\$100), second place (\$50), and third place (\$50).

Awards for best Undergraduate and Graduate Poster (\$100) were added by the Academy, in response to the increasing popularity of that form of presentation as well.

Student presenters interested in any of these competitions should mark the appropriate category on the abstract submission form, to indicate their desire to compete. Presentations not specifically entered into the competition will not be judged, nor will be eligible for an award.

Arkansas Academy of Science PERMANENT ONLINE HOME:

AAS Web Pages: The official website of the Academy now has a permanent public portal whose web address will never change although internal links for member pages might whenever the host migrates. Always access the online Academy pages from the permanent public portal...

<http://www.ArkansasAcademyofScience.org>

Accommodation in Magnolia

Holiday Inn Express

1604 East Main St., Magnolia, AR 71753
(870) 234-5161
www.hiexpress.com

Quality Inn

411 East Main St., Magnolia, AR 71753
(870) 234-3612
www.qualityinn.com

Magnuson Hotel Magnolia

420 East Main Street, Magnolia, AR 71753
(870) 234-6122
<http://magnolia.magnusonhotels.com>

Save Inn

301 E. Main Street, Magnolia, AR
(870) 234-5286

Budget Inn

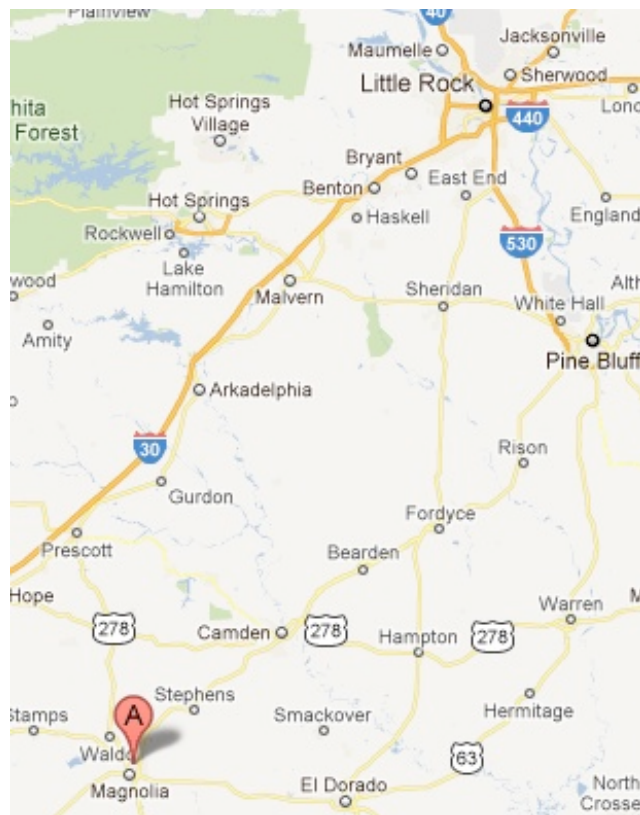
912 E. Main Street, Magnolia, AR
(870) 234-2262

The Loft on the Square Guest Suites

105 1/2 South Court Square, Magnolia, AR
(870) 234-2262

Southern Arkansas University

Department of Chemistry & Physics
P.O. Box 9172
Magnolia, AR 71753
Phone: (870) 235-5031



Campus Map

<http://peace.saumag.edu/AAS/images/Map.pdf>

**Grant competition for undergraduate students at
the Arkansas Academy of Science.**

**Arkansas Academy of Science
Undergraduate Research
Awards
up to \$500**

**Applications available at
<http://astro.host.ualr.edu/AAS/AASapp2012.pdf>**

Applications are due: March 1, 2012

For more information contact:

Dr. Marc S. Seigar

mxseigar@ualr.edu

(501) 569-8964