

# The Arkansas Academy of Science

## AAS Newsletter 2013

Ronald J. Tackett, Editor

February 2013



### Special points of interest:

- Abstract deadline  
March 8, 2013
- Hotel reservation deadline  
March 15, 2013
- Hotel Reservation can be made  
by phoning (501) 664-5020
- Abstract and registration templates may be found on the academy's website  
[arkansasacademyofscience.org](http://arkansasacademyofscience.org)
- Undergraduate research award applications due March 1, 2013

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## 97<sup>th</sup> Annual Meeting to be held in Little Rock

The 97<sup>th</sup> annual meeting of the Arkansas Academy of Science will be hosted by Arkansas Tech University and held on Friday and Saturday April 5-6, 2013 in Little Rock, Arkansas at the Clarion Little Rock (formerly the Hilton) on University Avenue. **Reservations may be made by phoning (501) 664-5020.** Information about the meeting can be found at [www.arkansasacademyofscience.org](http://www.arkansasacademyofscience.org).

Meeting registration will be \$40.00 per person and abstracts will be due by March 8, 2013. Hotel reservations must be made by March 15, 2013, and attendees are encouraged to reserve a room at the Clarion as a minimum number of rooms must be reserved in order for the hotel to waive the cost of the conference rooms. Mention the AAS meeting for a discounted hotel rate.

This year's meeting will include a banquet/mixer with a keynote address given by Arkansas native Dr. Amber Straughn of NASA's Goddard Space Flight Center in Greenbelt, MD. Dr. Straughn's presentation entitled *Beyond Hubble: A New Era of Astronomy with NASA's James*



*Webb Space Telescope* will focus on the exciting new technology development and scientific goals of the James Webb Space telescope which is currently being built and slated for launch later this decade.

Finally, all members are encouraged to attend this year's business meeting at noon on Saturday April 6, 2013 where a box lunch will be provided.

For questions and concerns relative to this year's meeting please see the Academy's website or contact the Local Organizing Committee chairman Dr. Jeff Robertson at [jrobertson@atu.edu](mailto:jrobertson@atu.edu).

## Arkansas JSHS looking for Volunteers

The Arkansas Junior Science and Humanities Symposium (JSHS) is a regional scholarship competition held to promote original research and experimentation in the STEM disciplines at the high school level and pub-

lically recognizes students for outstanding achievement in these fields. We are currently looking to expand the high schools participating in this annual event and are looking for university faculty interested in lend-

ing their time to working with interested high school students. For more information or to put your name in our database, please contact Ron Tackett, Arkansas JSHS director at [rtackett1@atu.edu](mailto:rtackett1@atu.edu).

# 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 15 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 8:45 AM to load your talk onto the computer).

Abstract submission is open for the 2013 AAS meeting. Abstract submission and registration are online. Abstracts must be submitted for both oral and poster presentations. Oral presentations are limited to 15 minutes (12 minute talk, 3 minutes for questions).

Display easels will be provided; however, it is the responsibility of the poster presenter to provide a sturdy backing for their poster (i.e. foam-core board)

Abstracts must be received **by 12 noon March 8** 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 naming convention and template files provided on at [www.arakansasacademyofscience.org](http://www.arakansasacademyofscience.org).

Online submission allows us to sort and organize the program once all submissions are made.

Manuscripts for publication in the Journal, based on a presentation given at the meeting, are due at the time of your presentation. Manuscripts should be e-mailed to the Managing Editor of the Journal (Dr. Ivan Still [istill@atu.edu](mailto:istill@atu.edu)) two days before the meeting.

## LOCAL ORGANIZING COMMITTEE AT ARKANSAS TECH UNIVERISTY

If you have comments or suggestions, please direct them to the appropriate person, below.

- Dr. Jeff Robertson, LOC Chair, coordinator for Arkansas Academy of Science  
[jrobertson@atu.edu](mailto:jrobertson@atu.edu)

## 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

The editorial staff are requiring the authors 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 JAAS instructions visit: [www.arkansasacademyofscience.org](http://www.arkansasacademyofscience.org) (journal tab)

This 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 type is what gets published. The printer does no retyping 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 Life Sciences and Physical Sciences, 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 may also be given for both best Undergraduate Poster and best Graduate Poster in Life Sciences and in Physical Sciences.

For more information please visit the website at [www.arkansasacademyofscience.org](http://www.arkansasacademyofscience.org)

## Grant Competition for Undergraduate Students at the AAS

The Arkansas Academy of Science sponsors annual undergraduate research awards for up to \$500. Applications are due March 1, 2013 and can be found on the web at:

[www.ottscience.com/aas/URA\\_application\\_2012.pdf](http://www.ottscience.com/aas/URA_application_2012.pdf)

For more information contact:

Dr. Marc S. Seigar

[mxseigar@ualr.edu](mailto:mxseigar@ualr.edu)

(501) 569-8964

## Arkansas Academy of Science PERMANENT ONLINE HOME:

The online home of the Academy is located at

<http://www.arkansacademyofscience.org>

## Junior Academy to Hold Annual Competition at UCA

The Arkansas Junior Academy of Science competition will be held alongside the Southwestern Energy Arkansas Science & Engineering



Fair at the University of Central Arkansas (UCA) campus on **March 29-30, 2013**. The awards banquet for the Junior Academy and the State Science Fair will be at the Student Center Ballroom (Second Floor) at 5:00 p.m., Saturday, March 30. In addition to awards for each of the categories, the overall winner of the Junior Academy competition will be sponsored to attend the annual meeting of the American Association for the Advancement of Science (AAAS) in Chicago, IL (13-17 February 2014). For more information please contact the director of the Jr. Academy, Dr. Charles Mebi (Assistant Professor of Chemistry at Arkansas Tech University) at [cmebi@atu.edu](mailto:cmebi@atu.edu)

## Arkansas INBRE Research Conference to be held at U of A



The Arkansas IDeA Network of Biomedical Research Excellence

(Arkansas INBRE) will be holding its annual research conference on October 18-19, 2013 on the campus of the University of Arkansas. For more information about this conference please visit the [Arkansas INBRE website at](http://ArkansasINBREwebsiteat)

<http://chemistry.uark.edu/INBRE/3642.htm>. Arkansas INBRE is funded by a grant from the National Institute of General Medical Sciences under the Institutional Development Award Program of the National Institutes of Health.

## 47<sup>th</sup> Annual Arkansas JSHS to be held at Arkansas Tech

The 47<sup>th</sup> annual Arkansas Junior Science and Humanities Symposium



will be held on the campus of Arkansas Tech University. The Arkansas Regional Junior Science and Humanities Symposium serves as a regional qualifier for the National Junior Science and Humanities Symposium (JSHS), which is a program supported by the United States Armed Services to promote original research and experimentation in the STEM (science, technology, engineering, and math) disciplines at the high school level and publicly recognize outstanding young students for their achievements in these fields. By connecting talented young students and their teachers with research professionals in the STEM disciplines, JSHS aims to widen the pool of talent prepared to conduct the research and development vital to the advancement of our nation. Any high school teacher, academic counselor, or administrator may nominate a high school student to compete in the Symposium. Nominees from grades 9 thru 12 from any public or private school in Arkansas are eligible to attend the Arkansas JSHS symposium and to submit a poster or paper on an original research project, providing all requirements are met in a timely fashion. For more information regarding this symposium, please contact Dr. Ron Tackett (Arkansas JSHS Director) at [rtackett1@atu.edu](mailto:rtackett1@atu.edu).

## Got something to inform the Academy about?

Get it put in the spring edition of the Arkansas Academy of Science Newsletter

For more information, contact the editor—Dr. Ron Tackett ([rtackett1@atu.edu](mailto:rtackett1@atu.edu))

## Keynote Speaker: Dr. Amber Straughn



Amber grew up in the small farming town of Bee Branch, Arkansas where her fascination with astronomy began under beautifully dark, rural skies. She obtained her B.S. in Physics at the University of Arkansas in Fayetteville in 2002, and completed her M.S. and Ph.D. in Physics at Arizona State University in 2008. She has been involved in NASA Education and Research programs since her undergrad years, beginning with flying an experiment on NASA's microgravity KC-135 plane (the "vomit comet") in 2001. During graduate school at Arizona State, Amber received the NASA Space Grant Fellowship for summer studies, and in 2005 was awarded the 3-year NASA Harriett Jenkins Pre-doctoral Fellowship.

Amber's research focuses on interacting and star-forming galaxies in the context of galaxy assembly, and she has most recently been working on infrared spectroscopic data from the new Wide Field Camera 3 (WFC3) on Hubble Space Telescope. Her broad research interests include galaxy formation and evolution, galaxy mergers and interactions, physical processes induced by galaxy interactions including star formation and black hole growth, emission-line galaxies, and dark energy and its effect on the galaxy merger rate.

In addition to research, Amber's role with the James Webb Space Telescope project involves working with Communications and Outreach activities. She has participated in extensive public speaking events locally, nationally, and internationally. Amber has also done several live television interviews, media features for NASA (see <http://www.nasa.gov/topics/technology/features/webb-faqs.html>), and appeared in the Late Night with Jimmy Fallon's "Hubble Gotchu" segment that aired in August 2010, and has interviewed for documentaries. She very much enjoys interacting with the public.

Amber lives in Glenn Dale, MD, with her husband Matt and her two Great Danes and one cat. Outside of her NASA work, she is a yoga teacher and is currently training for her private pilot's license.

## Beyond Hubble: A New Era of Astronomy with NASA's James Webb Space Telescope

For over 20 years, the Hubble Space Telescope has been revealing the unknown cosmos; this single scientific instrument has revolutionized our understanding of the Universe. In 2009, the complete refurbishment of Hubble gave new life to the telescope and has produced groundbreaking science results, revealing some of the most distant galaxy candidates ever discovered. Despite the remarkable advances in astronomy that Hubble has provided, the new questions that have arisen demand a new space telescope with new technologies and capabilities. I will present the exciting new technology development and science goals of Hubble's successor, NASA's James Webb Space Telescope, which is currently being built and tested and will be launched later this decade.





# The Arkansas Academy of Science

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