

Physics & Astronomy News



A publication of a division of the
Council on Undergraduate Research
Winter 2018

View from the Chair

On behalf of the CUR Physics & Astronomy division counselors, greetings and belated best wishes for the new year! I'm pleased to open this Newsletter with a brief summary of some of our Division's activities and a few ways you can become involved in your Division activities.

Several important due dates specific to our Division are fast approaching. The semi-annual due date for our CUR-PA Travel Award and Mentor Award programs is March 16th. Applications are already coming in, so get yours in soon! The annual NCUR meeting this year is April 4-7 at the University of Central Oklahoma. Thanks to those of you who served as reviewers for this year's Posters on the Hill, which occurs April 17-18—drop by if you'll be in the DC area at that time. This summer, the CUR Annual Business Meeting is June 28-30, just prior to the CUR Conference (July 1-3). Both are in Arlington, Virginia. Ideas and issues that you would like us to discuss at the ABM during our Division's sessions would be most welcome. See the cur.org website for details and updates on all these events—and more.

Has one of your students recently attended a meeting and presented research results? If so, send us a short report and photo for the next Newsletter. For good examples of what we're looking for, see the articles by mentor Hasitha Mahabaduge and student Kendal McDonald and mentor Niklas Manz and student Chase Fuller in this

About CUR's Physics & Astronomy Division

The P&A Division of the Council on Undergraduate Research provides networking opportunities, activities, and resources to assist Physics and Astronomy administrators, faculty members, students, practitioners, and others in advancing undergraduate research.

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issue. These teams were supported by this year's CUR-PA Travel Awards.

Once again, this year we reached out to all the physics departments in the U.S. and invited faculty to join CUR-PA as well as to consider running for the Council. I'm happy to report that membership is up again this year and several new candidates

ran for seats on CUR-PA. Please help us get the word out that faculty at “enhanced institutional members of CUR” are automatically individual members—they just need to activate it. There are several hundred institutional members. We’d love to have all the physicists and astronomers at them join us! Also, remind colleagues who are not at CUR member institutions that the cost of individual membership is quite modest, compared to other professional organizations.

Our Division continues to be very active in the CUR Executive Board. The CUR-EB most recently met January 26-27 at its new DC headquarters. Duncan MacBride, who serves as the Chair of the Finance Committee, reported that CUR has a strong financial base. Over the past year, both he and I have shared our Division’s input on the proposed new governance structure. The draft is now being reviewed by the CUR Constitution & Bylaws Committee, which is chaired by Mark Biermann. The proposed governance changes will be a focus of the summer ABM. An Advocacy Toolkit is under development. Those of you who already are or wish to become involved in advocating for undergraduate research at the regional, state or federal level will find this a very helpful resource (see https://www.cur.org/advocacy/advocacy_toolkit/).

Mike Jackson continued to chair the Posters on the Hill and CUR-PA Travel and Mentor award programs. Sorinel Oprisan continued to serve on the SPUR editorial board. Mike also is leading a “Best Practices in Undergraduate Research” collaboration between CUR, AAPT and the APS. A few years ago, CUR-PA member John Mateja led an initiative to encourage physics and astronomy societies to adopt official position statements on the importance of supporting undergraduate research. Other CUR Divisions are now

following our lead. It’s time for us to renew this initiative, too. If you would like to be involved, please let me know. Another related CUR initiative is integrating research into the curriculum. It’d be great to have some articles for our Newsletter about the creative ways you are doing that at your institutions.

Our Division is only as active as you make it. Please suggest ways we could better engage our colleagues, services we could be providing, new initiatives we should consider, and help us improve support for undergraduate research. *Note that you need not be a Counselor to participate in most of the CUR committees, task forces, or advisory groups.* Have a look at the CUR website and just let us know you want to volunteer!

Two final notes: We’re still soliciting suggestions for the “Name Our Newsletter” campaign. Also, please consider making a donation to support our very popular Travel Award program—or one of the other CUR-PA Division activities in which you are especially interested. You can find a link at the bottom right side of the cur.org home page (or, just click here: https://members.cur.org/members_online/members/donations.asp).

As always, special thanks to Rick Thompson for editing our Newsletter. We welcome articles, notes and photos about your undergraduate research activities and accomplishments. Materials should be sent to Rick at: rt533@cabrini.edu.

See you at the summer ABM!



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NCUR 2018, Don't Miss It!

NCUR 2018, hosted by the University of Central Oklahoma (UCO) from April 4-7, promises to be another great NCUR event. Over 3,900 undergraduates will be presenting oral, poster, visual art and performing art works.

New this year, UCO is organizing a set of five, free pre-conference workshops. The pre-conference workshops will be hosted on April 4th and will cover American Indian Studies, Business Energy Sector, Early Childhood Education through an International Lens, Forensic Sciences, and Interdisciplinary Arts (with tracks in film, creative writing, dance and music).

Plenary speakers for NCUR 2018 include 1) Kareem Abdul-Jabbar, six-time NBA champion, columnist for *The Washington Post*, and Emmy Award winner; 2) Ramu Damodaran, Chief of the United Nations Academic Impact initiative and Deputy Director for Partnerships and Public Engagement in the in the United Nations Department of Public Information's Outreach Division; 3) Commander John Herrington Ph.D., ambassador for the Chickasaw Nation and former NASA astronaut who was the first Native American to walk in space; and 4) Claudia San Pedro, the Executive Vice President and Chief Financial Officer for the Oklahoma City-based national headquarters of SONIC, America's Drive-In.

Special interest sessions at NCUR 2018 include, among others, "Applying to Graduate Schools as a First Generation or Underrepresented Student," "The NSF Graduate research Fellowship Program: Getting the Most Out of Your Undergraduate Research Experience and Obtaining Financial Support for Graduate School," How to Develop a Winning

Resume or CV," and "Make Yourself Competitive for Prestigious Nationally-Competitive Scholarships."

Online Registration opens on Tuesday, January 23, 2018, with the deadline for early conference registration occurring on Thursday, February 22, 2018. For more information about NCUR, please go to: http://www.cur.org/conferences_and_events/student_events/ncur_2018/. Please plan to attend and bring your students!

2018 NCUR Travel and Mentor Awards

The CUR Physics and Astronomy division is pleased to offer travel awards for students presenting research results at NCUR or other physics/astronomy related professional meetings. We also invite nominations for the CUR-PA Mentor Award. Both program deadlines are March 16, 2018. Applying is easy!

For Travel Awards: when your abstract is accepted by the meeting, prepare a letter with the following information:

1. Your name and contact information
2. Your student's name and contact information
3. The meeting abstract and acceptance letter
4. Evidence that the mentor is a current CUR member (or join when applying)
5. A brief budget that clearly outlines what would be supported by the Award.

For Mentor Awards: prepare a letter of nomination that summarizes the candidate's undergraduate research mentoring activities over the most recent several years. Additional supporting documents from other colleagues are welcome.

Both Travel Award applications and Mentor Award nominations should be sent via email

to Terry Oswalt (oswaltt1@erau.edu). They will be reviewed by the CUR-PA councilors and decisions will be announced within 2-3 weeks of the due date.

Please note the following rules apply:

- *Awards are limited to physics and astronomy related disciplines.*
- *Only one application/nomination per department*
- *Separate physics and astronomy departments on the same campus will be considered as distinct, and are each eligible*
- *Priority is given to students of mentors who are CUR-PA members*
- *CUR-PA councilors may apply, but an award will be made only if funds are available after awards have been made to the general CUR-PA membership.*

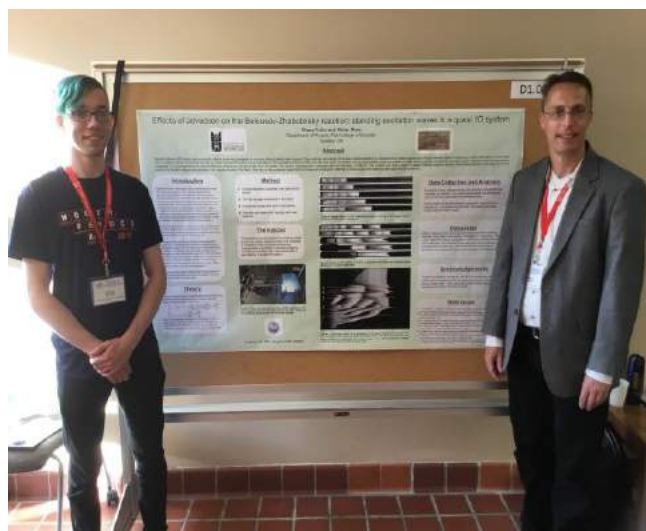
Chase Fuller – Travel Award Report

Last Fall, I was awarded a travel grant from CUR to attend my very first physics conference! I attended the Ohio-Region Section American Physical Society meeting at Miami University in Oxford, Ohio and presented my REU results from the Summer of 2017. See picture (above right) of myself, Chase Fuller, with my adviser, Dr. Niklas Manz.

It was an amazing experience being surrounded by so many accomplished scientists and listening to them speak about their research. I'll admit, as a first semester junior, much of it went over my head initially. But the conference experience is about engaging with each other as peers and I had many interesting conversations and several pages of notes to do some research of my own later.

There was a contingency of College of Wooster undergraduates at this conference, seven of us in total (see

picture, lower right). It was thanks to CUR for their travel grant that I was able to attend. It was an absolutely invaluable experience for me as a developing scientist and I learned so much-- not just about what other scientists in and around Ohio are doing, but about other ways of presenting research and talking about it effectively. I am confident that my abilities as a scientific communicator have improved tremendously!



Chase and his adviser, Dr. Niklas Manz



College of Wooster contingent

2017-18 CUR Physics & Astronomy Division Travel Awards Report

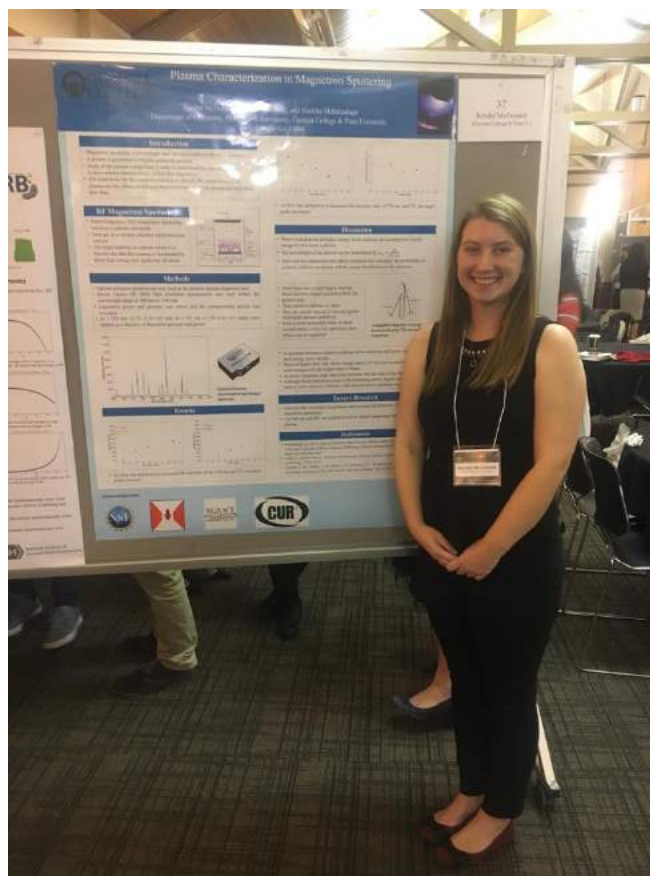
Applicant: Kendal McDonald
 Institution: Georgia College & State
 University
 Mentor: Dr. Hasitha Mahabaduge (CUR
 membership type: Enhanced Individual, Id
 #: 73127)

Conference: Conference for Undergraduate
 Women in Physical Sciences
 Venue: The University of Nebraska –
 Lincoln, Lincoln, Nebraska
 Date: Thursday, Nov. 9 - Saturday, Nov. 11,
 2017

Kendal McDonald, a senior physics major at Georgia College attended the Conference for Undergraduate Women in Physical Sciences held at the University of Nebraska Lincoln. Kendal presented her research titled “Plasma Characterization in Magnetron Sputtering” during the poster presentation session.

Contemplating on her experience, Kendal said “This conference gave me the opportunity to improve my presentation skills and to network with other women in the same field. I was inspired by listening to invited speakers who shared their life stories and received lot of information about applying for graduate schools. My overall experience was so rewarding”

Kendal McDonald and her research mentor, Dr. Hasitha Mahabaduge gratefully acknowledge the travel support provided by the CUR Physics & Astronomy Division.



Kendal McDonald at Conference for
 Undergraduate Women in Physical Sciences

2018 Posters on the Hill

Abstracts submitted to the Posters on the Hill event are currently under review. Over 400 completed abstracts were submitted this year, with each abstract evaluated by at least three reviewers. Selections should be announced in February. The event is tentatively scheduled for April 18 in the US Capitol, Washington DC.

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Opportunities

(If you have a job opening or program that you would like to advertise here, please send the information to Newsletter Rick Thompson for inclusion in the next newsletter)

Your CURPA Councilors

Rae Anderson, University of San Diego
Nadine Barlow, Northern Arizona

University. CURPA Secretary and
Chair CUR Fellows Committee.

Maria Bautista, Kapi`olani Community
College. Diversity and Inclusion
Task Force.

Matthew Beaky, Juniata College.
CUR Finance Committee.

Mark Biermann, Valparaiso University.
Constitution and Bylaws
Committee.

Joseph Carson, College of Charleston.

Beth Cunningham, AAPT. CURPA
Mentoring program.

Chris Fuse, Rollins College.
Nominations Chair

Carol Hood, Cal State San Bernardino.

Michael Jackson, Millersville University.
CUR Posters on the Hill
Committee.

Seth King, UW La Crosse

George Marcus, SUNY Geneseo,
Assessment.

John Mateja, Murray State University.

CUR/Barry Goldwater Scholar
Faculty Mentor Award Committee
and NCUR Oversight Committee.

Duncan McBride, formerly at the National
Science Foundation. CUR
Treasurer, CUR Finance
Committee, and CUR
Investments Committee.

Sorinel Oprisan, College of Charleston.
CUR Quarterly Editors Board.

Terry Oswald, Embry-Riddle Aeronautical
University. CURPA Chair,
Advocacy Advisory Committee,
CUR Executive Board.

Kristin Rabosky, Weber State University

Innovation and Collaboration
Committee

Phillip Reed, Kutztown University,
Internationalization Task Force.

Toni Sauncy, Texas Lutheran University,
Program Review, Student
Programs.

Allyn Smith, Austin Peay State University.
CUR Posters on the Hill Review
Committee.

Richard Thompson, Cabrini University.
CURPA Newsletter Editor.

Francis Tuluri, Jackson State University,
Innovation and Collaboration Task
Force.

Brian Utter, Bucknell University,
Assessment.

Gabriel Williams, College of Charleston

CURPA News Deadline

CURPA News comes out three times per year and we welcome your contributions! Please send your submissions, comments, achievements, opportunities, etc. to Rick Thompson (rt533@cabrini.edu). Deadline for the Spring 2018 issue is ***April 17, 2018.***