

Andrew McAllister

Doctorate in Applied Physics, Science Communicator

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McAllisterSci
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Summary

- Goal** A career where I can use my technical expertise to work on understand complicated problems facing society and then communicate those efforts (and possible solutions) to a wide variety of audiences.
- Science Communication** Sought out specific training and experiences presenting to, writing for and working with diverse audiences throughout my PhD.

Education

- Expected:** **PhD in Applied Physics**, *University of Michigan*, Ann Arbor, MI.
September 2018
- 2012** **B.S. in Physics**, *Rensselaer Polytechnic Institute*, Troy, NY.
Magna cum laude, dual major in mathematics

Writing and Editing for a General Audience

1. **Using LEDs to Tell Plants What We Want From Them [Link]**, *Science in the News Blog*, 2018.
Worked with the "Friends of Joe's Big Idea" program by National Public Radio.
2. **Senior Editor**, *Students of Applied Physics*, *Applied Physics Student Council*.
I work with PhD students to develop understandable and engaging articles about research in the applied physics department. [Example article \[Link\]](#)
3. **Atomistic Calculations Predict That Boron Incorporation Increases The Efficiency Of LEDs [Link]**, *University of Michigan Materials Science & Engineering News*, 2017.
Press release for research group. Picked up by the Department of Energy, National Energy Research Scientific Computer Center, and Semiconductor Today.
4. **How Gecko Feet Will Make Your Next Move Easier [Link]**, *Michigan Science Writers*, 2017.
I also work as a content editor for Michigan Science Writers, where I provide feedback and help develop a rough draft developing of a piece by another graduate student.

Communication Training

- August 2017** **ComSciCon Chicago [Link for more information]**, *Chicago, IL*.
Attended a conference based on science communication.
- 2016** **Researchers Expanding Lay-Audience Teaching and Engagement (RELATE) Workshops**.
- o Over 3 months, worked on crafting messages and narratives, considering different audiences and making visual aids.
 - o Developed and produced a [YouTube video \[Link\]](#) highlighting my research.

Awards

- 2014** National Science Foundation Graduate Research Fellowship Program

- 2012 [Nadia Trinkala Service Award \[Link for Verification\]](#), Rensselaer Physics Department
- 2010 [Founder's Award of Excellence \[Link for Verification\]](#), Rensselaer Physics Department
- 2008 Boy Scouts of America, Eagle Scout

Public Engagement

- 2018 **Engaging Scientists in Policy and Advocacy.**
Volunteer for "Ask a Scientist at Art Fair", where I spoke to adults interested in science at a large local event in an informal setting.
- 2018 **Skype a Scientist [Link]**.
Volunteered for the Skype a Scientist program, where I skyped into multiple high school classrooms to talk about science, becoming a scientist, and other topics. More information on my blog, [here](#).
[Link]
- 2017 **Nerd Nite [Link] Ann Arbor Talk.**
Gave a 20 minute talk about my research at a local bar to an audience of mostly non-scientists. A recording of the talk is available at: [LED Light Bulbs: Why Do They Cost an Arm and a Leg?](#)
[Link]
- 2013-2016 **American Society for Engineering Education.**
Organized and ran a table at K-Grads Kid's Fair – an elementary school visit to University of Michigan. At the table, I helped demonstrate some concepts of signal analysis by using a laser to transmit music through open air.
- 2008-2012 **Society of Physics Students.**
Organized and ran multiple outreach events at local schools and on campus. A large project that I was involved with was organizing a full-day program on light and solar cells for the Harlem Academy's visit to Rensselaer with my advisor, Peter Persans.

Leadership

- 2018-Present **Organizer**, *ComSciCon Michigan*, Ann Arbor, MI.
Work with other graduate students to organize, publicize and run a conference devoted to science communication in Ann Arbor Michigan.
- 2017-Present **Senior Editor**, *Students of Applied Physics Project*, *Applied Physics Student Council*, Ann Arbor, MI.
Develop story ideas and edit articles that PhD students write about each other's research. [Example article](#)
- 2014-2015 **President**, *Local Chapter of American Society for Engineering Education*, Ann Arbor, MI.
Organize and run meetings, ensure that skill workshops have teachers, plan future workshops based on the needs of University of Michigan students.
- 2009-2011 **President**, *Local Chapter of Society of Physics Students*, Troy, NY.
Organize meetings and social events, foster a community of physics students, act as intermediary between faculty and students, help organize and run engagement events in local area.

Professional Memberships

American Association for the Advancement of Science
 American Physical Society
 American Society for Engineering Education
 Materials Research Society
 Society for Social Studies of Science