

# Andrew McAllister

*PhD in Applied Physics, science communicator*

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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.
- Analytical Thinking** A PhD in applied physics with specific expertise in materials science, nanotechnology, energy efficiency, and high performance computing.
- 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.  
**August 2018** Relevant Coursework:
  - Public Policy 650 – Introduction to Science and Technology Policy Analysis
  - Engineering 580 – Teaching Engineering
- 2012** **B.S. in Physics**, *Rensselaer Polytechnic Institute*, Troy, NY.  
Magna cum laude, dual major in mathematics

## Work Experience

- June-August 2013** **Computational Chemistry and Materials Science Fellow**,  
*Lawrence Livermore National Laboratory*, Livermore, CA.

## 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

## 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.  
I work with PhD students to develop understandable and engaging articles about research in the applied physics department. [Example article \[Link\]](#)
- 2014-2015** **President**, *Local Chapter of American Society for Engineering Education*, Ann Arbor, MI.
- 2009-2011** **President**, *Local Chapter of Society of Physics Students*, Troy, NY.

## 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.

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## Selected Communication Experience

### General Audience Writing

1. **Atomistic Calculations Predict That Boron Incorporation Increases The Efficiency Of LEDs**, 2017.  
Press release for research group. Picked up by the DOE, NERSC, and Semiconductor Today.
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](#)

### Public Engagement

1. **Andrew McAllister**, **LED Light Bulbs: Why Do They Cost an Arm and a Leg?**, Nerd Nite 2017, Ann Arbor, MI


### Technical Publications

1. **Andrew McAllister**, Dylan Bayerl, Emmanouil Kioupakis, Auger and radiative recombination in indium nitride, *Applied Physics Letters*, **112**, 251108 (2018) [doi:10.1063/1.5038106](#)
2. Kyeongwoon Chung, **Andrew McAllister**, David Bilby, Bong-Gi Kim, Min Sang Kwon, Emmanouil Kioupakis, Jinsang Kim, Designing interchain and intrachain properties of conjugated polymers for latent optical information encoding, *Chemical Science* **6**, 6980-6985 (2015) [doi:10.1039/c5sc02403j](#)

### Contributed Technical Presentations

1. **Andrew McAllister**, Dylan Bayerl, Christina Jones, Emmanouil Kioupakis, Auger Recombination From First-principles in Group-III Nitride Alloys, American Physical Society March Meeting 2018, Los Angeles, CA
2. **Andrew McAllister**, Dylan Bayerl, Emmanouil Kioupakis, Radiative and Auger Recombination of Degenerate Carriers in InN American Physical Society March Meeting, 2017, New Orleans, LA
3. **Andrew McAllister**, Predictive modeling of quantum processes for optoelectronic devices, Physics Graduate Student Symposium, 2014, Ann Arbor, MI

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**Company Recruitment team**  
*Company, Inc.*  
*123 somestreet*  
*some city*

June 22, 2018

Dear Sir or Madam,

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Albert Einstein discovered that  $e = mc^2$  in 1905.

Yours faithfully,

**Andrew McAllister**

*Attached: curriculum vitae*