

Antonius Torode

Curriculum vitae

Education

- 2015–2018 **B.S., Physics, Mathematics (Duel Majors)**, *Michigan State University*, East Lansing MI, *GPA – 3.76*.
Finished all requirements for an undergraduate physics degree and Mathematics degree. Graduating at the end of Summer 2018.
- 2011–2014 **Undergraduate Studies**, *Oakland Community College*, *GPA – 3.7*.
General studies as well as math/sciences up to and including Calculus III, Differential Equations, Engineering Physics II and General Chemistry II (4.0 in all).
- 2008–2011 **High School**, *Clarkston High School*, Clarkston MI, *GPA – 4.0 (ACT standards)*.
AP Physics, AP Calculus, AP computer Sciences, CSMTech (3 year advanced math, science and technology program).

Experience

- 2017–Present **Undergraduate Research Assistant**, NATIONAL SUPERCONDUCTING CYCLOTRON LABORATORY, East Lansing MI.
- I work in experimental nuclear astrophysics.
 - My primary focus is with scintillator detectors and experimental setups to better understand nucleosynthesis.
 - I also perform calculations and simulations for determining existing detector properties and new detector properties.
- 2016–Present **P-A Computing Assistant**, MICHIGAN STATE UNIVERSITY, East Lansing MI.
- I work to manage and maintain the computers and networks for multiple departments at MSU, including Physics & Astronomy, Phisiology, and Microbiology & Molecular Genetics.
 - My responsibilities include fixing any common or difficult problems that may arise while applying my knowledge to maintain or improve efficiency within the department.
- Summer 2016 **Physics Teaching Assistant**, MICHIGAN STATE UNIVERSITY, East Lansing MI.
- A weekly tutor and an exam proctor for PHY 232C, an online course taught at Michigan State University.
 - In charge of assisting students in the understanding of concepts and problems via both an online forum and in person.
- 2013–2015 **CRLA Certified Math, Physics and Chemistry Tutor**, OAKLAND COMMUNITY COLLEGE, Auburn Hills MI.
- Mathematics lab tutor for fundamental concepts and ideas including but not limited to mathematics, physics and chemistry.

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Summer 2013 **Condensed Matter Physics Research**, OAKLAND UNIVERSITY, Auburn Hills MI.

- Extensively studied Raman spectroscopy and graphite/graphene under high pressures.
- Performed a Raman spectroscopy experiment on graphene using a diamond anvil cell to achieve high pressures.
- Personally designed and set up resistivity experiments to confirm findings.
- Presented research in a professional and comprehensive manner in front of an audience.

2011–2013 **Data Research Analyst**, CLRS, INC., Southfield MI.

- Performed Data analysis of different financial markets including the General Motors commercial car market.
- Learned and filled in for other positions when needed, including management duties.
- Performed analysis of economic markets and businesses.
- In depth research of Las Vegas casino populations.
- Analyzed business functionality and efficiency and improved upon them by shortening data verification process.

2010–Present **d0sag3-Films**, HOME BUSINESS.

- d0sag3-Films is a video editing and graphic design title I created.
- Paid projects for Detroit In Focus but also many personal projects.
- Many of my projects can be viewed at <https://www.facebook.com/d0sag3> (d0sag3 is spelled with a zero).

Publications and Projects

2018 "Multiple Integrated Applications (MIA)." Program created for further development of application design. Contains mathematical functions, encryption algorithms, windows key code simulations, a comprehensive workout generation system, and more.

Oct 2017 "Characterizing a Tape Station and Beta Detector For Radioactive Isotope Beam Experiments." Conference Poster presented at the Fall Meeting of the Division of Nuclear Physics of the American Physical Society

2017 "Generations of Nuclear Activity (GINA)." Program created for performing nuclear decay calculations for a new radioactive transport system at the NSCL.

2017 "Local Operations Listing Agent (LOLA)." Program created for improved efficiency and computer database management at MSU.

Jun 2017 "Exploration of the Quantum Casimir Effect." Student Journal of Physics - International Version - Vol. 6. No. 2. April-June 2017 - Indian Association of Physics Teachers.

May 2017 "The Antonius Cookbook." Self Published: Free culinary cookbook download. <https://msu.edu/~torodean/ACookbook.html>

Nov 2016 "Antonius' Handbook." Comprehensive reference of useful formulas, constants, units and definitions. Self Published: Free book download for current version. <https://msu.edu/~torodean/AHandbook.html>

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Honors, Clubs, and Other Affiliations

- 2016-2018 Michigan State University Dean's List
- 2017 Lawrence W. Hantel Endowed Fellowship Fund, in Memory of Professor Donald J. Montgomery
- 2016-2017 Regular Attendee of Physics, Astronomy, and Karate Clubs at Michigan State University
- 2015 Member of the Phi Theta Kappa Honor Society
- 2011-2015 Oakland Community College Dean's List
- 2010 Member of the National Junior Classical League

Computer skills

Basic PHP, MAC OS

Intermediate to Advanced Linux, JAVA, BASH HTML, CSS, CAD, \LaTeX , C++, C#, Python, DS9, Stellarium, OpenOffice products, Microsoft Office products, Microsoft Windows 2000/XP/Vista/7/8/10, Adobe Premiere Pro, Adobe Illustrator, Sony Vegas, Final Cut Studio, Adobe Photoshop, Adobe After Effects, Cygwin Terminal, GNU/GCC compilation, makefile programming, Computer Hardware and Support

References

- 2015–Present **Artemis Spyrou**, *Associate Professor of Physics, National Superconducting Cyclotron Laboratory*, Cyclotron, 640 S Shaw Ln, East Lansing, MI 48824, spyrou@nscl.msu.edu (517)-908-7141.
Supervisor at NSCL.
- 2015–Present **Esther V. V. Reed**, *MSU Information Technologist Departmental Support*, Biomed/Physical Science Building: 567 Wilson Road, Room 1209, East Lansing, MI 48824, reed@pa.msu.edu (517)-884-5469.
Supervisor at Michigan State University.
- 2013–2015 **Michael Robinson**, *OCC Faculty*, 739 S Washington Ave, Royal Oak, MI 48067, mdrobins@oaklandcc.edu (248)-232-4438.
Employer at Oakland Community College.
- 2013 **Yuejian Wang**, *Assistant Professor*, 2200 N Squirrel Rd, Rochester, MI 48309, ywang235@oakland.edu (248)-370-3423.
Employer at Oakland University.
- 2011–2013 **Mitch Kanaan**, *CLRS, inc. President/Owner*, 29433 Southfield Road, Suite 106 Southfield, Michigan 48076, mkanaan@clrsinc.com (248)-760-5316.
Employer at CLRS, Inc.

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