

# Hugo Alberto Ayala Solares

*Osmond Building 204A*

*Pennsylvania State University*

*[hgayala@psu.edu](mailto:hgayala@psu.edu)*

*<http://www.phys.psu.edu/people/hza53>*

## OVERVIEW

---

Postdoctoral Scholar, Member of the Institute for Gravitation and the Cosmos at PSU, Member of the AMON project and HAWC Collaboration.

## APPOINTMENTS

---

**Postdoctoral Scholar** 2017-

*Pennsylvania State University*

- Institute for Gravitation and the Cosmos. Advisors: Miguel Mostafa and Doug Cowen: work on multimessenger astrophysics. Developing and increasing AMON searches.

**Research Intern** Spring 2011

*Photonics and Mathematical-Optics Group*

**Research Intern** Summer 2010

*Summer Intern at Michigan Technological University, Houghton, MI, USA*

## EDUCATION

---

**PhD Physics** 2011-2017

*Michigan Technological University (MTU), Houghton, MI*

*“[Search for High-Energy Gamma Rays in the Northern Fermi Bubble Region with the HAWC Observatory](#)”*

*Thesis advisor: Petra Huentemeyer (University of Hamburg/DESY)*

**BS Engineering Physics** 2006-2010

*Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Monterrey, Mexico.*

*Advisor: Dr. Alfonso Serrano Heredia*

**Exchange Program at MTU** 2009-2010

*Michigan Technological University (MTU)*

*GPA: 3.89/4*

## TEACHING

---

- Spring 2016: **Instructor for Waves and Thermodynamics Lab MTU**
- Fall 2013: **Instructor for Astronomy Lab MTU**
- Spring 2013: **Instructor for Astronomy Lab MTU**
- Fall 2012: **Instructor for Electromagnetism Lab MTU**

- Spring 2012: **Instructor for Classical Mechanics Lab MTU**
- Fall 2011: **Instructor for Classical Mechanics Lab MTU**
- Fall 2010: **Teaching Assistant for Electromagnetic Theory Class ITESM**
- Spring 2009: **Instructor for Classical Mechanics Lab ITESM**
- Fall 2008: **Physics and Mathematics Advisor ITESM**
- Fall 2007: **Physics and Mathematics Advisor ITESM**

## CONFERENCES

---

15. Non-thermal Universe, Cochem, Germany, 09/18 **Invited**
14. VHEUP, Quy Nhon, Vietnam, 08/18 **Invited**
13. APS, Columbus, Ohio, 04/18
12. APS, Washington, D.C., 01/17
11. Gamma16, Heidelberg, Germany, 07/16
10. Fermi-VERITAS-HAWC Workshop, Salt Lake City, Utah, 04/16
9. APS, Salt Lake City, Utah, 04/16
8. Fermi Symposium, Washington, D.C., 11/15
7. ICRC 2015, The Hague, Netherlands, 08/15
6. APS, Baltimore, MD, 04/15
5. Graduate Research Colloquium at MTU, Houghton, MI, 02/15 Award best talk
4. Fermi-VERITAS-HAWC Workshop, Madison, WI, 10/14
3. Fermi-VERITAS-HAWC Workshop, Maryland, MD, 02/14
2. ICRC 2013, Rio de Janeiro, Brazil, 07/13 **Poster**
1. Fermi Summer School, Delaware, 05/13

## PROFESSIONAL SKILLS

---

### *Computational*

Advance Knowledge: C/C++, Python, ROOT, Linux, ubuntu, LATEX. Intermediate Knowledge: php, html, bash, MySQL

### *Research*

Programming, Data Analysis, Statistics, Gamma-ray Astrophysics, High Energy Astrophysics

### *Languages*

Spanish (Mother tongue), English (Fluent), German (Basic Knowledge)

## **AWARDS**

---

- 2017 Henes Fellowship Assistant Award by Department of Physics at MTU
- 2016 Doctoral Finishing Fellowship Award by Graduate School at MTU
- 2016 Graduate Research Assistantship by Department of Physics at MTU
- 2012 Outstanding Teaching Assistant
- 2011-2015 Graduate Teaching Assistantship by Department of Physics at MTU
- 2010 Honorable Mention of Excellence by ITESM
- 2010 Dean's List 4.0 at MTU
- 2006-2010 Academic Excellence Scholarship by ITESM