

Arturo Omar Martinez

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Education

Georgia State University

Current graduate student/researcher

Atlanta, GA, USA

Fall 2016 – Present

- Aiming for M.S. in Physics (with concentration in Astronomy) to be awarded in mid-2018 (expected) and PhD in Astronomy in 2021 (expected).

San Diego State University

Full-time graduate student/researcher

San Diego, CA, USA

Fall 2015 – Summer 2016

San Diego State University

B.S. - Astronomy Major/Math Minor

San Diego, CA, USA

Fall 2011 - Spring 2015

Research Interests

My current research interests lies in stellar astronomy in topics such as stellar evolution and calculating stellar parameters. I am currently working to find precise ages of stars and study the nature of rapid rotators. Other research interests include combining astronomy with modern technology (using virtual reality).

Honors, Awards, Prizes

- **Second Century Initiative University Doctoral Fellow:** August 2016 – Present
- **Cal-Bridge Scholar:** October 2014 – July 2016
- **Gordon and Doris Cox Scholarship:** May 2011
- **California Scholarship Federation Member:** May 2011

Research

Georgia State University

Advisor: Prof. Fabien Baron

Atlanta, GA, USA

January 2017 – Present

- My research with Prof. Baron consists of studying rapid rotators. I will be using CHARA to do image reconstruction on these rapid rotators to study their origins, show any detections (or lack thereof) of sunspots, and compare observational data with theoretical codes. Additionally, I will be using VR headsets to construct a 3D model for these stars.

San Diego State University

Advisor: Prof. Eric Sandquist

San Diego, CA, USA

January 2014 – Present

- My research with Prof. Sandquist involved eclipsing binary stars in order to derive a precise age in the star cluster M 37. I specifically looked at two eclipsing binaries in order to constrain their periods by producing light curves.

University of Arizona

Advisor: Prof. Ian Crossfield

Tucson, AZ, USA

June 2015 – August 2015

- As part of the California-Arizona Minority Partnership for Astronomy Research and Education (CAMPARE), I worked under the guidance of Prof. Crossfield to find stellar and planetary parameters for various *K2* objects of interest. Although the CAMPARE program only lasted 10 weeks (from June 2015 - August 2015), I continued working with Prof. Crossfield and published a paper in *ApJ*.

Technical and Personal skills

- **Programming Languages:**
 - Fortran 90 (proficient)
 - Python (intermediate)
 - L^AT_EX(intermediate)
 - Julia (novice)
 - HTML/CSS (novice)
- **Observing:**
 - I have some knowledge operating the 1-m telescope at Mount Laguna Observatory (owned by SDSU) and taking photometric observations.
 - As part of the research through the CAMPARE program, I have also attained observing experience with the New Technology Telescope (NTT) using the SOFI and EFOSC2 spectrographs.
- **Linguistics:**
 - English (Speaking and writing level: native proficiency)
 - Spanish (Speaking level: professional proficiency; Writing level: elementary proficiency)
 - American Sign Language (elementary proficiency)

Research Talks

- Presented summer research at CAMPARE Symposium on September 12th, 2015.
- Presented summer research at Lunar and Planetary Laboratory Conference on August 20th, 2015.
- Gave an end of summer internship CAMPARE talk at Steward Observatory on August 19th, 2015.

Poster Presentations

- At AAS in Kissimmee, FL – January 2016
- At K2SciCon in Santa Barbara, CA – November 2015

Teaching Experience

Georgia State University **Atlanta, GA, USA**
Teaching Assistant - Lab Instructor *August 2016 – Present*

- As a TA at GSU, I have taught several labs. Topics for these labs include, but are not limited to the following: Phases of the Moon, Stellar Classification, and Galactic Classification

San Diego Learning Center **Chula Vista, CA, USA**
Educator *October 2013 – March 2015*

- At the SDLC, my main job was to help students, anywhere from first grade to college freshman in Algebra 1, Geometry, Trigonometry, Calculus, Astronomy, and Physics.

Outreach/Community Service

Hard Labor Creek Observatory **Rutledge, GA, USA**
Georgia Buddhist Summer Camp *June 9, 2017*

- o Gave a talk to the Georgia Buddhist Summer Camp group, which included many newcomers to astronomy (half of which were children). Also showed guests the observatory, telescopes, and celestial objects.

Hard Labor Creek Observatory

Rutledge, GA, USA

Open House

Summer 2017

- o Gave a public showing of different telescopes and celestial objects through the telescopes on June 3rd, 2017.

Chula Vista High School

Chula Vista, CA, USA

Tutoring

Fall 2010 – Spring 2011

- o Peer-tutoring in subjects ranging Algebra up to Calculus

Extracurricular Activities

- o **San Diego State University**

San Diego, CA, USA

Astronomy Club, Event Coordinator

Fall 2014 – Spring 2015

- o **Chula Vista High School**

Chula Vista, CA, USA

House of Guitars Ensemble

Fall 2009 – Spring 2011

Publications

First Author.....

1. **Martinez, A. O.**; Crossfield, I. J. M.; Schlieder, J. E.; Dressing, C. D.; Obermeier, C.; Livingston, J.; Ciceri, S.; Peacock, S.; Beichman, C. A.; Lépine, S.; Aller, K. M.; Chance, Q. A.; Petigura, E. A.; Howard, A. W.; Werner, M. W.; *Stellar & Planetary Parameters for K2's Late Type Dwarf Systems from C1 to C5*, 2017, ApJ, 837, 72

Corresponding Author.....

1. Crossfield, I. J. M.; Ciardi, D. R.; Petigura, E. A.; Sinukoff, E.; Schlieder, J. E.; Howard, A. W.; Beichman, C. A.; Isaacson, H.; Dressing, C. D.; Christiansen, J. L.; Fulton, B. J.; Lépine, S.; Weiss, L.; Hirsch, L.; Livingston, J.; Baranec, C.; Law, N. M.; Riddle, R.; Ziegler, C.; Howell, S. B.; Horch, E.; Everett, M.; Teske, J.; **Martinez, A. O.**; Obermeier, C.; Benneke, B.; Scott, N.; Deacon, N.; Aller, K. M.; Hansen, B. M. S.; Mancini, L.; Ciceri, S.; Brahm, R.; Jordán, A.; Knutson, H. A.; Henning, T.; Bonnefoy, M.; Liu, M. C.; Crepp, J. R.; Lothringer, J.; Hinz, P.; Bailey, V.; Skemer, A.; Defrere, D.; *197 Candidates and 104 Validated Planets in K2's First Five Fields*, 2016, ApJS, 226, 7
2. Kirk, B.; Conroy, K.; Prša, A.; Abdul-Masih, M.; Kochoska, A.; Matijevič, G.; Hambleton, K.; Barclay, T.; Bloemen, S.; Boyajian, T.; Doyle, L. R.; Fulton, B. J.; Hoekstra, A. J.; Jek, K.; Kane, S. R.; Kostov, V.; Latham, D.; Mazeh, T.; Orosz, J. A.; Pepper, J.; Quarles, B.; Ragozzine, D.; Shporer, A.; Southworth, J.; Stassun, K.; Thompson, S. E.; Welsh, W. F.; Agol, E.; Derekas, A.; Devor, J.; Fischer, D.; Green, G.; Gropp, J.; Jacobs, T.; Johnston, C.; LaCourse, D. M.; Saetre, K.; Schwengeler, H.; Toczyski, J.; Werner, G.; Garrett, M.; Gore, J.; **Martinez, A. O.**; Spitzer, I.; Stevick, J.; Thomadis, P. C.; Vrijmoet, E. H.; Yenawine, M.; Batalha, N.; Borucki, W.; *Kepler Eclipsing Binary Stars. VII. The Catalog of Eclipsing Binaries Found in the Entire Kepler Data Set*, 2016, AJ, 151, 68