

Sean Granados

University of California, Los Angeles

Email: Seangranados@astro.ucla.edu

Linkedin: <https://www.linkedin.com/in/sean-granados-b24559256/>

Website: <https://seangranados.github.io/>

Education

University of California, Los Angeles

September 2021 – May 2023

B.S. in Astrophysics – GPA: 3.8

Chaffey Community College

September 2017 – May 2021

A.S. in Physics and Mathematics – GPA: 3.9

Research Experience

Galactic Center Group

June 2022 - Present

University of California, Los Angeles: Undergraduate

PI: Dr. Andrea Ghez

- Analyzed star detection models with non-linearity correction, leading to 30% more star candidates detected at galactic center.
- Found non-linearity correction shows an overall decrease in measurement errors.
- Showed that correction improved previous models on data-set of interest by about 60%

Black Hole Accretion Disks

April 2022 - June 2022

University of California, Los Angeles: Undergraduate

Mentor: Dr. Steven Furlanetto

- Conducted literature review on accretion disks, active galactic nuclei, and black hole research done by Dr. Philip Armitage and Dr. Clive Tadhunter.
- Created simulation of the Magneto-rotational instability effect within an accretion disk with conducting fluids and differential rotation with analysis on the effects.

Upsilon Research Group

September 2021 - April 2022

University of California, Los Angeles: Undergraduate

- Worked in a team to conduct research on binary star systems.
- Found and analyzed stellar spectral lines of a binary star system candidate.

Transit Photometry

August 2020 - December 2020

Chaffey Community College, Rancho Cucamonga: Undergraduate

Mentor: Dr. Daniel Carson

- Conducted research on the transit photometry method as a way of detecting exoplanets.
- Utilizing Wide Angle Search for Planets data, demonstrated the utilities of the transit photometry method by calculating the temperature of WASP-4b.

Field Biology

June 2020 - December 2020

University of California, Los Angeles: Undergraduate

Mentor: Eva Horna Lowell

- Investigated the aggressive behaviors of the Argentine Ant by collecting and completing literature reviews of scientific background papers.
- Formulated hypothesis in which larger groups display more aggressive behaviors.
- Constructed theoretical lab experiment setup to test hypothesis.

Other Experience

AstroTech

July 16 2023 - July 22 2023

University of California, Berkeley

- Worked in a team of 5 to build an astronomical instrument (spectrograph)
- Learned the extensive and complicated process required to build astrophysical instruments

STEM Tutor

September 2021 - September 2022

At Home Tutoring, Los Angeles

- Hold tutoring sessions K-12 as well as early college level in physics, mathematics, and chemistry.

Supplemental Instruction Leader

January 2020 - December 2021

Chaffey Community College, Rancho Cucamonga

- Organized and conducted collaborative learning sessions for fellow students in physics, mathematics, and chemistry.
- Promoted to Discipline Lead in STEM, leading and guiding fellow Supplemental Instruction Leaders.

Research Presentations

Granados, S., Ghez, A., Gautam, A., Sakai, S. (2022). 30% More Star Candidates Found at Galactic Center After Non-linearity Correction.

University of California, Los Angeles – 2022

Granados, S., Carson, D. (2020). Transit Photometry: Utilities and Applications.

Chaffey Community College, Rancho Cucamonga – 2020

Granados, S., Lowell, E. (2020). Aggressive Behavior in the Argentine Ant

University of California – 2020

Specialized Skills

Programming Languages: Python (intermediate), Mathematica (intermediate), C++ (beginner)

Excel: (advanced)

PowerPoint: (advanced)

UNIX: (advanced)

Other Interests

Skydiving License: Trained solo skydiver – *March 2021 - Present*

Perris Skydive

Fitness Trainer: Led physical fitness sessions – *March 2022 - Present*

Rancho Cucamonga

City Lab: Outreach assistant and presenter – *September 2021 - March 2022*

University of California, Los Angeles

Environmental Action Club: Founder and president – *January 2020 - June 2020*

Chaffey Community College, Rancho Cucamonga