Felipe Eduardo Gran Merino

Ph.D. student at Instituto de Astrofísica Pontificia Universidad Católica de Chile

Millenium Institute of Astrophysics (MAS) graduate student European Southern Observatory (ESO Chile) graduate student fegran@uc.cl fgran@astro.puc.cl fgran@eso.org

PERSONAL DETAILS

Birthday: July 20, 1989 Citizenship: Chilean Webpage: fegran.github.io

ORCID: orcid.org/0000-0002-9252-6899 Family status: 1 child born September 4, 2012

EDUCATION

Ph.D. in Astrophysics:

March 2016 - Present

Pontificia Universidad Católica de Chile Ph.D. candidate: approved May 2018

ESO Chile Studentship programme: since September 2019

Expected thesis defense: September 2021

B.Sc. and M.Sc. in Astrophysics:

March 2008 - August 2015

Pontificia Universidad Católica de Chile

Both grades: "Distinción Máxima" (summa cum laude)

EXPERIENCE

Ph.D. Thesis:

March 2017 - Present

Unleashing the proper motions: revolution in the inner Galaxy.

Advisors: Manuela Zoccali (PUC, Chile) and Ivo Saviane (ESO Chile)

Short internship:

January 2019 - March 2019

European Southern Observatory (ESO), Garching bei Munich, Germany.

Advisor: Elena Valenti (ESO, Germany)

M.Sc. Thesis:

March 2015 - August 2015

Mapping the outer bulge with RR Lyrae stars from the VVV survey.

Advisors: Manuela Zoccali (PUC, Chile) and Dante Minniti (UNAB, Chile)

B.Sc. Thesis:

March 2013 - August 2013

Long-Period variable stars in the VVV survey.

Advisors: Dante Minniti (PUC, Chile) and Roberto Saito (UFS, Brazil)

FONDECYT projects technical staff:

December 2012 - July 2015

- 3D Structure, 3D Kinematics and Chemical Abundances

of the Spheroid and Bar in the Inner Milky Way

- Stellar Evolution and Variability Studies in the Era of Large Surveys

- VVV Templates Project

Proyecto FONDECYT Regular 1110326, 1141141, and 1150345

Advisors: Márcio Catelan (PUC, Chile) and Manuela Zoccali (PUC, Chile)

Assistantships

Multiple assistanships since 2012: Astronomy 101, Stellar and Experimental Astrophysics, Data Analysis, and Scientific Assistant at PUC Observatory.

ACADEMIC GRANTS

"CONICYT: Beca de asistencia a eventos": October 2018 - December 2018 Selected for a grant to atend two conferences: IAC XXX Canary Islands Winter School of Astrophysics: Big Data Analysis in Astronomy (November 2018, Spain) and The Galactic Bulge at the crossroads (December 2018, Chile)

March 2017 - December 2019

"CONICYT: Concurso Becas de Doctorado en Chile":

Selected for a grant to continue Ph.D. studies

March 2014 - July 2015

"CONICYT: Concurso Becas de Magíster en Chile":

Selected for a grant to continue M.Sc. studies

SKILLS Languages: Spanish (native language)

English (IELTS certification B2/6.5 overall in 2018)

Programming Language: Python (advanced level, total experience: 8 years)

ADQL, HTML, C# for Unity (intermediate level)

Frequently Used Software: TOPCAT, STILTS, LaTeX

Community service: MNRAS referee

Graduate student representative (2017-2019)

Outreach activities: MAS sticker album: scientific development (MAS, 2021),

Live interview "Astronomy in your live" (MAS, 2020),

Science Party and Solar Eclipse stands (MAS and GMTO, 2019-2020)

CONFERENCES – Virtual EAS 2021 Annual Meeting: Online poster.

AND SELECTED - Gaia EDR3 Early Science and Best Practices: Online workshop.

WORKSHOPS

- SOCHIAS XVI Annual Meeting 2020: Online presentation.
- Nice WG4 Workshop: A Dynamical View of the Sky: Oral presentation.
- Galactic Bulge at the Crossroads: Oral presentation.
- XXX Canary Islands Winter School of Astrophysics:

Big Data Analysis in Astronomy: Poster presentation.

- Second La Serena School for Data Science
- Harvard-Chile Special Workshop on Data Science
- Multiple VISTA Variables in the Vía Láctea Science Meetings

APPROVED OBERVING PROGRAMS

GSAOI at Gemini South Observatory

PI: F. Gran, December 2020; 10 hours.

FEROS at La Silla Observatory

PI: F. Gran, February 2020: 3 nights (observing experience: 10 days in July 2021).

MUSE at Paranal Observatory

PI: F. Gran, December 2018, 2019: 14 hours.

SPARTAN at SOAR Observatory

PI: F. Gran, June 2019; 1 night.

APOGEE-2S at Las Campanas Observatory

PI: M. Zoccali, March 2017, 2018; 3 nights.

PUBLICATIONS – First author:

Hidden in the Haystack:

Low-luminosity globular clusters towards the Milky Way bulge

Gran, F. et al. 2021, MNRAS submitted

APOGEE view of the globular cluster NGC 6544

Gran, F. et al. 2021, MNRAS, 504, 3494

Globular cluster candidates in the Galactic bulge:

Gaia and VVV view of the latest discoveries

Gran, F. et al. 2019, A&A, 628, 45, 30

Mapping the outer bulge with RRab stars from the VVV Survey

Gran, F. et al. 2016, A&A, 591, 145

Bulge RR Lyrae stars in the VVV tile b201

Gran, F. et al. 2015, A&A, 575, 114

- Complete list of publications: link to <u>ADS</u>¹, h-index: 13. Publications as a first author: 4, as a co-author: 31, refereed: 21, and non-refereed: 14.

- Latest three co-author publications:

Variable stars in the VVV globular clusters. II. NGC 6441, NGC 6569, NGC 6626 (M 28), NGC 6656 (M 22), 2MASS-GC 02, and Terzan 10 Alonso-García, J. (incl. Gran, F.) 2021, A&A, 651, 47

CAPOS: The bulge Cluster APOgee Survey I. Overview and initial ASPCAP results Geisler, D. (incl. Gran, F.) 2021, arXiv:2106.00024, accepted for A&A

How many components? Quantifying the complexity of the metallicity distribution in the Milky Way bulge with APOGEE

Rojas-Arriagada, A. (incl. Gran, F.) 2020, MNRAS, 499, 1037

 $^{^1 \}rm ADS\ library:\ https://ui.adsabs.harvard.edu/public-libraries/sxdI6LnxS7mbdg2sye8mNQ$