Felipe Eduardo Gran Merino

Ph.D. student at Instituto de Astroísica
Pontificia Universidad Católica de Chile
Millenium Institute of Astrophysics (MAS) graduate student
European Southern Observatory (ESO Chile) graduate student
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PERSONAL DETAILS

Birthday: July 20, 1989
Citicenship: Chilean
Webpage: fegran.github.io
Family status: 1 child born September 4, 2012

EDUCATION

Ph.D. in Astrophysics: March 2016 - Present
Pontificia Universidad Católica de Chile
Ph.D. candidate: aproved May 2018

M.Sc. in Astrophysics: August 2013 - August 2015
Pontificia Universidad Católica de Chile
"Distinción Máxima"

B.Sc. in Astronomy: March 2018 - August 2013
Pontificia Universidad Católica de Chile
"Distinción Máxima"

RESEARCH INTERESTS

The Galactic bulge: stellar populations, structure, globular and open clusters, proper motions
Variable stars: RR Lyrae stars as distance tracers and automatic classification
Wide-field surveys: VVV, Gaia, APOGEE surveys

EXPERIENCE

Ph.D Thesis: March 2017 - Present
Unleashing the inner Galaxy: the proper motion revolution
Advisor: Manuela Zoccali (PUC, Chile)
Advisor: Ivo Saviane (ESO Chile)

Short internship: January 2019 - March 2019
European Souther 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)

Summer Practice: January 2012
Commissioning and characterization of the spectrograph at UC Observatory
Advisor: Felipe Barrientos (PUC, Chile)

Technical Staff: April 2015 - July 2015
3D Structure, 3D Kinematics and Chemical Abundances
of the Spheroid and Bar in the Inner Milky Way
Proyecto FONDECYT Regular 1150345
Advisor: Manuela Zoccali (PUC, Chile)

Technical Staff: March 2014 - March 2015
Stellar Evolution and Variability Studies in the Era of Large Surveys
Proyecto FONDECYT Regular 1141141
Advisor: Márcio Catelan (PUC, Chile)

Technical Staff: December 2012 - February 2014
VVV Templates Project
Proyecto FONDECYT Regular 1110326
Advisor: Márcio Catelan (PUC, Chile)

Assistantships:
- *Data Analysis II (2014B)*
- *Scientific Assistant at UC Observatory (2012A, 2012B, 2013A, 2014A, 2014B)*
- *Experimental Astrophysics (2013B)*
- *Astronomy (2013A)*
- *Stellar Astrophysics (2012B)*

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)
- The Galactic Bulge at the crossroads (December 2018)

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)

Programming Language: Python (advanced)
ADQL (basic)
HTML (basic)

Used Software: TOPCAT, STILTS, Aladin

Github Repository: github.com/fegran

CONFERENCES AND WORKSHOPS	**Nice WG4 Workshop: A Dynamical View of the Sky** Oral presentation: "Hidden in the haystack: new globular cluster candidates in the Galactic bulge" Nice, France, December 2019
	Galactic Bulge at the Crossroads Oral presentation: "Unleashing the inner Galaxy: the proper motion revolution" Pucón, Chile, December 2018
	XXX Canary Islands Winter School of Astrophysics: **Big Data Analysis in Astronomy** Tenerife, Spain, November 2018
	ESO Star Cluster Meeting Oral presentation: "High-resolution analysis of the globular cluster NGC 6544" Santago, Chile, March 2017
	Data Driven Modeling of Spectra using The Cannon La Serena, Chile, March 2016
	6th VISTA Variables in the Vía Láctea Science Meeting Oral presentation: "Outer bulge RR Lyrae stars in the VVV Survey" Puerto Varas, Chile, March 2015
	Second La Serena School for Data Science La Serena, Chile, August 2014
	Harvard-Chile Special Workshop on Data Science La Serena and Santago, Chile, January 2014
APPROVED OBERVING PROGRAMS	**FEROS at La Silla Observatory** *Low-luminosity globular clusters in the Milky Way bulge:* *characterizing a new population* PI: F. Gran, February 2020
	MUSE at Paranal Observatory *Hidden in the haystack: spectroscopic confirmation* *of recently discovered bulge globular clusters* PI: F. Gran, December 2018, 2019
	SPARTAN at SOAR Observatory *Hidden in the haystack: characterization of recently* *discovered bulge globular clusters* PI: F. Gran, June 2019
	APOGEE-2S at Las Campanas Observatory *Exploring the heart of our Galaxy* PI: M. Zoccali, March 2017, 2018
	VIMOS at Paranal Observatory *Kinematics and Chemical Abundances of RR Lyrae variables in the Galactic bulge* PI: M. Zoccali, December 2014
	OSIRIS at SOAR Observatory *Follow-up observations of Galactic novae candidates discovered by the VVV Survey* PI: R. K. Saito, March 2013

PUBLICATIONS

**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

VVV-WIT-07: another Boyajian's star or a Mamajek's object?
Saito, R. K. (**incl. Gran, F.**) 2018, MNRAS, 482, 500

The VVV Survey RR Lyrae Population in the Galactic Center Region
Contreras Ramos, R. (**incl. Gran, F.**) 2018, ApJ, 863, 79

The Orbit of the New Milky Way Globular Cluster FSR1716 = VVV-GC05
Contreras Ramos, R. (**incl. Gran, F.**) 2018, ApJ, 863, 78

*VVV Survey Orbital Period Confirmation for the
Cataclysmic Variable IGR J17014-4306*
Ferreira, T., R. et al. (**incl. Gran, F.**) 2018, RNAAS, 2, 39

*Proper motions in the VVV Survey:
Results for more than 15 million stars across NGC 6544*
Contreras-Ramos, R. et al. (**incl. Gran, F.**) 2017, A&A, 608, 140

Near-IR period-luminosity relations for pulsating stars in ω Centauri (NGC 5139)
Navarrete, C. et al. (**incl. Gran, F.**) 2017, A&A, 604, 120

*FSR 1716: A New Milky Way Globular Cluster
Confirmed Using VVV RR Lyrae Stars*
Minniti, D. et al. (**incl. Gran, F.**) 2017, ApJ, 838, 14

A machine learned classifier for RR Lyrae in the VVV survey
Elorrieta, F. et al. (**incl. Gran, F.**) 2016, A&A, 595, 82

Discovery of RR Lyrae Stars in the Nuclear Bulge of the Milky Way
Minniti, D, et al. (**incl. Gran, F.**) 2016, ApJ, 830, 14

Mapping the outer bulge with RRab stars from the VVV Survey
Gran, F. et al. 2016, A&A, 591, 145

*VVV Survey Observations of a Microlensing Stellar Mass Black Hole Candidate in
the Field of the Globular Cluster NGC 6553*
Minniti, D. et al. (**incl. Gran, F.**) 2015, ApJ, 810, 20

Clustered Cepheid Variables 90 kiloparsec from the Galactic Center
Chakrabarti, S., et al. (**incl. Gran, F.**) 2015, ApJ, 802, 4

Updated Census of RR Lyrae Stars in the Globular Cluster ω Centauri
Navarrete, C. et al. (**incl. Gran, F.**) 2015, A&A 577, A99

Bulge RR Lyrae stars in the VVV tile b201
Gran, F. et al. 2015, A&A, 575, 114

Variable stars in the VVV globular clusters. I. 2MASS-GC02 and Terzan10
Alonso-García, J. et al. (**incl. Gran, F.**) 2015, AJ, 149, 99

*The VVV Templates Project Towards an automated classification
of VVV light-curves. I. Building a database of stellar variability in the near-infrared*
Angeloni, R., et al. (**incl. Gran, F.**) 2014, A&A, 567, 100

A misidentified RR Lyrae variable star in omega Centauri
Navarrete, C. et al. (**incl. Gran, F.**) 2013, IBVS, 6078, 1