

# Felipe Gran Curriculum Vitae

# PERSONAL DETAILS

Felipe Eduardo Gran Merino  $Full\ Name$ 

July 20, 1989 **Birthday** CitizenshipChilean RUT17.089.167-8

4519 Los Villares, Los Andes Address(+56 2) 2354 7052 (office 117) Phonefgran@astro.puc.cl; fegran@uc.cl Mail1 child - born September 4<sup>st</sup> 2012 Family status

# **EDUCATION**

MSc. in Astrophysics

Pontificia Universidad Católica de Chile

Licenciatura en Astronomía

Pontificia Universidad Católica de Chile "Distinción máxima"

2013 Aug. - current

2008 Mar. - 2013 Aug.

2013 Mar. - 2013 Aug.

# **EXPERIENCES**

**Practical** 

Undergraduate Thesis

Long-Period Variable Stars in the VVV Survey

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

Summer Practice

2012 Jan.

Commissioning and characterization of the spectrograph at UC Observatory Advisor: Felipe Barrientos

Assistantships

Astronomy Lab II

Course assistant

Professor: Manuela Zoccali

Astronomy

Scientific assistant at UC Observatory

Professor: Felipe Barrientos

**Experimental Astrophisics** 

Course assistant

Professor: Leopoldo Infante

2012 Mar.- 2013 Jul. Astronomy

2014 Mar. - 2014 Dec.

2014 Mar.- 2014 Dec.

2013 Mar. - 2014 Dec.

Scientific assistant at UC Observatory

Professor: Felipe Barrientos

Astronomy 2013 Mar. - 2013 Jul.

Course assistant

Professor: Rolando Dunner

Astronomy 2013 Mar. - 2013 Jul.

 $Course\ corrector$ 

Professor: Rolando Dunner

Physics for Sciences 2013 Mar. - 2013 Jul.

 $Course\ corrector$ 

Professor: Heman Bhuyan

Stellar Astrophysics 2012 Aug.- 2012 Dec.

 $Course\ assistant$ 

Professor: Julio Chanamé

Physics for Sciences 2012 Aug. - 2012 Dec.

 $Course\ corrector$ 

Professor: Juvenal Letelier

Differential Equations 2010 Ago. - 2010 Dec.

Laboratory Assistant

Professor: Mónica Musso

Academic grants and other experiences

"CONICYT: Concurso Becas de Magister en Chile" 2014 Mar. - current

Selected for a grant to continue MSc. studies

Ranked 18<sup>th</sup> of 1732 Chilean students with a score of 4,851/5,000.

Stellar Evolution and Variability Studies

in the Era of Large Surveys - Technical Staff

Proyecto FONDECYT Regular 1141141

Advisor: Márcio Catelan

VVV Templates Project - Technical Staff

Proyecto FONDECYT Regular 1110326

Advisor: Márcio Catelan

2012 Dec. - 2014 Feb.

2014 Mar. - current

# **SKILLS**

Languages Spanish (native language)

English

OS UNIX

Programming Language Python

Graphical software DataThief, SuperMongo, Matplotlib

Astronomical software Aladin, IRAF, TOPCAT

Text composition LaTeX

# **CONFERENCES AND WORKSHOPS**

#### XII Annual SOCHIAS Meeting

2015 Mar.

Poster: Outer bulge RR Lyrae stars in the VVV Survey

Co-I: Dante Minniti and Roberto Saito

Puerto Varas, Chile

# 6<sup>th</sup> VISTA Variables in the Vía Láctea Science Meeting

2015 Mar.

Oral presentation: Outer bulge RR Lyrae stars in the VVV Survey

Co-I: Dante Minniti and Roberto Saito

Puerto Varas, Chile

#### Astroinformatics 2014

2014 Aug.

Poster: Outer Bulge RR Lyrae stars in the VVV Survey

Co-I: D. Minniti, R. K. Saito I. Dékány, C. Navarrete, I. McDonald, R. Contreras Ramos and M. Catelan

Viña del Mar, Chile

# 1<sup>st</sup> Workshop of the Millennium Institute of Astrophysics

2014 Aug.

Poster: Outer Bulge RR Lyrae stars in the VVV Survey

Co-I: D. Minniti, R. K. Saito I. Dékány, C. Navarrete, I. McDonald, R. Contreras Ramos and M. Catelan

Los Andes, Chile

### Second La Serena School for Data Science

2014 Aug.

Participant

La Serena, Chile

# 5<sup>th</sup> VISTA Variables in the Vía Láctea Science Meeting

2014 Apr.

Participant

Concón, Chile

#### Harvard-Chile Special Workshop on Data Science

2014 Jan.

*Participant* 

Santiago and La Serena, Chile

# International Network of Catholic Astronomical Institutions (INCAI) Workshop 2013 Aug.

Participant

Santiago, Chile

# 4<sup>th</sup> VISTA Variables in the Vía Láctea Science Meeting

2013 Mar.

Poster: A search for high-amplitude variables in the VVV data

Co-I: Dante Minniti and Roberto Saito

Viña del Mar, Chile

# 4<sup>th</sup> VISTA Variables in the Vía Láctea Science Meeting

2013 Mar.

Poster: Digitizing IR light curves for VVV Templates Project

Co-I: Márcio Catelan, Rodolfo Angeloni and the VVV Templates team

Viña del Mar, Chile

### UC Observatory Science Day

2013 May.

Participant
Santiago, Chile

# APPROVED OBSERVING PROGRAMS

#### OSIRIS at SOAR Observatory

2013 Mar.

Follow-up observations of Galactic novae candidates discovered by the VVV Survey

P.I.: Roberto Saito

Co-I: Rodolfo Angeloni, Marcio Catelan, Felipe Gran, Dante Minniti, Tiago Ribeiro

#### VIMOS at Paranal Observatory

 $2014 \; \mathrm{Dec}$ 

Kinematics and Chemical Abundances of RR Lyrae variables in the Galactic bulge

P.I.: Manuela Zoccali Co-I: incl. **Felipe Gran** 

# **CURRENT WORK AND TOPICS OF INTEREST**

Variable Stars: RR Lyrae and Long-Period variables stars.

The Milky Way bulge: Galactic bulge structure, stellar populations

and proper motions through the VVV Survey.

Data Science: Astrostatistics and astroinformatics:

Automatic light-curve classification.

# **PUBLICATIONS**

## Refereed Publications

# Clustered Cepheid Variables 90 kiloparsec from the Galactic Center

Chakrabarti, S., Saito, R. K., Quillen A., **Gran, F.**, Klein, C., Blitz, L. 2015, in press ApJL, arXiv150201358C

# An Updated Census of RR Lyrae Stars in the Globular Cluster $\omega$ Centauri (NGC 5139)

Navarrete, C. et al. (incl. Gran, F.) 2015, in press A&A, arXiv150102286N

## Bulge RR Lyrae stars in the VVV tile b201

Gran, F., Minniti, D.; Saito, R. K.; Navarrete, C.; Dékány, I.; McDonald, I.; Contreras Ramos, R.; Catelan, M.
A&A, 2015, 575, 114

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.; Catelan, M.; Contreras Ramos, R.; Alonso-Garcia, J.; Dekany, I.; **Gran,** F.; Hempel, M.; Angeloni, R. 2013, IBVS, 6078, 1

# Variable stars in the VVV globular clusters.

#### I. 2MASS-GC02 and Terzan10

Alonso-García, J.; Dékány, I.; Catelan, M.; Contreras Ramos, R.; **Gran, F.**; Amigo, P.; Leyton, P.; Minniti, D.
AJ, 2015, 149, 99

#### Non-refereed Publications

#### Stellar variability in the VVV survey: overview and first results

Catelan, M., et al. (incl. Gran, F.) 2014, IAUS, 301, 395

#### Stellar Variability in the VVV survey

Catelan, M., et al. (incl. Gran, F.)

40 Years of Variable Stars: A Celebration of Contributions by Horace A. Smith (ed. K. Kinemuchi, H. A. Smith, N. De Lee, & C. Kuehn), 2013, arXiv:1310.1996