

# Carolina Agurto Gangas

🌐 [cagurto.github.io](https://cagurto.github.io)

✉ [cagurto@mpe.mpg.de](mailto:cagurto@mpe.mpg.de)

📱 [cagurto](#)

☎ +49 176 21001601

## Education

### Ludwig-Maximilians-Universität München

*Dr. rer. nat. in Astronomy*

### Universidad de Valparaíso

*MSc. in Astrophysics*

### Universidad de Valparaíso

*Licentiate in Physics with specialization in Astronomy, BSc degree*

Munich, DE

*Expected Graduation: March 2020*

Valparaíso, CL

*Graduation: May 2015*

Valparaíso, CL

*Graduation: December 2012*

## Observational experience

### NORthern Extended Millimeter Array (NOEMA)

*Project S16AT Grain growth in a Class I protoplanetary disk.*

PI: C. Agurto-Gangas. Total time: 7.9h

IRAM, Grenoble, FR

*29-01 Jun/Feb 2017*

### Submillimeter Array (SMA)

*Support astronomer on MASSES observing programm 2014A-S093*

Mauna Kea, HI

*2-6 Jun 2016*

### Paranal Observatory

*Observing programm on FORS*

- Period measurements of WDMS binaries on CVs period gap

Antofagasta, CL

*2-4 Jun 2015*

### Observatorio Santa Martina UC

*Be stars spectra campaign*

- Spectra for 40 Be stars using Pucheros, a high resolution Echelle spectrograph ( $R = 17000$ ) mounted ESO telescope at 50cm.

Santiago, CL

*23-27 Feb 2015*

### La Silla Observatory

*Observing program on NTT-EFOSC2*

- Spectral study of binary systems (K-F-G dwarf) plus white dwarf star, radial velocity and period calculation.

La Serena, CL

*23-30 Nov 2012*

### Cruz del Sur Observatory

*Variable stars observation (CCDOps software)*

Combarbalá, CL

*25-30 Jan 2011*

## Publications and Proceedings

### Revealing the dust grain size in the inner envelope of the Class I protostar Per-emb-50

2019

A&A Volume 623, A147

Agurto-Gangas, C.; Pineda, J. E.; Szucs, L.; Testi, Tazzari, M., Miotello, A.; Caselli, P.; Dunham, M.; Stephens, I. W.; Bourke, T.

### Grain growth in Class I protostar Per-emb-50: a dust continuum analysis ...

2017

Proceeding, Memorie della Societa Astronomica Italiana, v.88, p.761.

Agurto-Gangas, C.; Pineda, J. E.; Testi, L.; Caselli, P.; Szucs, L.; Tazzari, M.; Dunham, M.; Stephens, I. W.; Miotello, A.

### Determination of Pulsation Periods and Other Parameters of 2875 Stars ...

2016

ApJ Supplement Series, Volume 227, Issue 1, article id. 6, 13 pp.

Vogt, N.; Contreras-Quijada, A.; Fuentes-Morales, I.; Vogt-Geisse, S.; Arcos, C.; Abarca, C.; Agurto-Gangas, C.; Caviedes, M.; DaSilva, H.; Flores, J.; Gotta, V.; Peñaloza, F.; Rojas, K.; Villaseñor, J. I.

### Young stellar clusters in the VVV Survey containing massive YSOs

2016

ApJ, Volume 152, Issue 3, article id. 74, 23 pp.

Borissova, J.; Ramírez Alegría, S.; Alonso, J.; Lucas, P. W.; Kurtev, R.; Medina, N.; Navarro, C.; Kuhn, M.; Gromadzki, M.; Retamales, G.; Fernandez, M. A.; Agurto-Gangas, C.; Chené, A. N.; Minniti, D.; Contreras Pena, C.; Catelan, M.; Decany, I.; Thompson, M. A.; Morales, E. F. E.; Amigo, P.

<b>Detached cataclysmic variables are crossing the orbital period gap</b> MNRAS, Volume 457, Issue 4, p.3867-3877. Zorotovic, M.; Schreiber, M. R.; Parsons, S. G.; Gänsicke, B. T.; Hardy, A.; <a href="#">Agurto-Gangas, C.</a> ; Nebot Gómez-Morán, A.; Rebassa-Mansergas, A.; Schwöpe, A. D.	2016
<b>VVV Galactic Star Clusters: VVV CL059</b> Proceeding VI Reunión sobre Astronomía Dinámica en Latinoamérica (ADeLA 2014), RevMexAA. <a href="#">Agurto Gangas, C.</a> ; Borissova, J.; Ramírez Alegria, S.; Kurtev, R.; VVV star cluster Team	2015
<b>Fourteen new eclipsing SDSS white dwarf plus main-sequence binaries ...</b> MNRAS, Volume 449, Issue 2, p.2194-2204. Parsons, S. G.; <a href="#">Agurto-Gangas, C.</a> ; Gänsicke, B. T.; Rebassa-Mansergas, A.; Schreiber, M. R.; Marsh, T. R.; Dhillon, V. S.; Littlefair, S. P.; Drake, A. J.; Bours, M. C. P.; Breedts, E.; Copperwheat, C. M.; Hardy, L. K.; Buisset, C.; Prasit, P.; Ren, J. J.	2015
<b>White dwarf-main sequence binaries from SDSS DR8: unveiling the cool ...</b> MNRAS, Volume 433, Issue 4, p.3398-3410. Rebassa-Mansergas, A.; <a href="#">Agurto-Gangas, C.</a> ; Schreiber, M. R.; Gänsicke, B. T.; Koester, D.	2013

## --- Conferences/Schools/Workshop

<b>Talk: Revealing the dust grain size in the inner envelope of the Class I protostar Per-emb-50</b>	24-28 June 2019
<b>Poster talk: Dust properties inside and outside the disk of BHB07-11</b> European Week of Astronomy and Space Science. Lyon, France.	
<b>Talk: Radiative transfer modelling of a protostellar disk</b> 7th International Max-Planck Research School on Astrophysics (IMPRS) Symposium. MPE, Garching, Germany	4-5 April 2019
<b>Talk: Radiative transfer modelling for the Per-emb-50 protostellar disk</b> Center for Astrochemical studies (CAS) Retreat. Ringberg, Germany	5-7 Dec 2018
<b>Talk: Revealing the dust grain size in the inner envelope of the Class I protostar Per-emb-50</b> Second Binational Meeting AAA-SOCHIAS. La Serena, Chile	7-12 Oct 2018
<b>II International Astrochemistry School</b> Universidad Autónoma de Chile. Santiago, Chile	1-5 Oct 2018
<b>Talk: Revealing the dust grain size in the inner envelope of the Class I protostar Per-emb-50</b> MPE Science Day 2018. Garching, Germany	12 Sep 2018
<b>Poster: Revealing the dust grain sizes in the envelope of Per-emb-50</b> Cosmic Dust: origin, applications and implications. Copenhagen, Denmark	11-15 Jun 2018
<b>Talk: Evidence of grain growth in Class I protostar: Per-emb-50</b> Center for Astrochemical studies (CAS) Retreat. Ringberg, Germany	28-30 Jun 2017
<b>Talk: Grain growth in Class I Protostars</b> MIAPP PROGRAMME: PROTOPLANETARY DISKS AND PLANET FORMATION AND EVOLUTION. Garching, Germany	29 May- 23 Jun 2017
<b>Poster: Grain growth in Class I protostar Per-emb-50: A dust continuum analysis with NOEMA &amp; SMA</b> Francesco's legacy: star formation in space and time. Florence, Italy.	5-9 Jun 2017
<b>9th IRAM millimeter interferometry School</b> Institut de Radioastronomie Millimétrique IRAM, Grenoble, France	10-14 Oct 2016
<b>Talk: Grain growth in Class I Protostars</b> 2nd International Max-Planck Research School on Astrophysics (IMPRS) Symposium. MPE, Garching, Germany	5-6 Oct 2016
<b>Talk: Combining the Catalina light curve catalogue and SDSS to identify new eclipsing PCEBs</b>	
<b>Poster: Young stellar clusters in the VVV Survey containing massive YSOs</b> XII annual meeting of the Chilean Astronomical Society (SOCHIAS). Puerto Varas, Chile	12-15 Mar 2015
<b>First VLTI School in Chile</b>	3-7 Nov 2014

Universidad de Valparaíso, Chile

**Poster: VVV Galactic Star Clusters: VVV CL059**

Aug 29 - Oct 3 2014

VI Reunión sobre Astronomía Dinámica en Latinoamérica (ADeLA 2014). Santiago, Chile

**Poster: VISTA Variables in The Via Lactea Galactic Star Clusters: VVV CL059**

7-8 Aug 2014

First Workshop of Millenium Institute of Astrophysics. Los Andes, Chile

**MAD Planet Formation Summer School**

20-22 Mar 2013

Cerro Calán, Santiago, Chile

**Talk: White dwarf-M dwarf binaries from Sloan Digital Sky Survey**

22-26 Oct 2012

First National Meeting of Physics and Astronomy Students. Valparaíso, Chile

**Talk: White dwarf-M dwarf binaries from Sloan Digital Sky Survey**

10-12 Oct 2012

IX annual meeting of the Chilean Astronomical Society (SOCHIAS). Viña del Mar, Chile

**Poster: White dwarf-M dwarf binaries from Sloan Digital Sky Survey**

3-7 Oct 2011

First Bi-national Meeting AAA-SOCHIAS. San Juan, Argentina.

## Awards/Grants

**Award 100 Young Chilean Leaders**

Dec 2018

*Selected as one of the 100 leaders under 35 by El Mercurio newspaper and Universidad Adolfo Ibáñez*

**Scholarship for Doctorate programs abroad**

2015-2019

*Becas Chile, CONICYT Nr. 5594/2015*

**Grants for the Astronomy Graduate Program of the Universidad de Valparaíso**

2014

*Gemini-CONICYT Project Nr. 32110004*

**Grants for the Master Astronomy Program at Universidad de Valparaíso**

2013

*ALMA-CONICYT Project Nr. 31120015*

## Teaching experience

Universidad de Valparaíso:

2012 **First semester, Assistant professor in Physic I**, *B.S. in Mathematics Course.*

2012 **First semester, Assistant professor in Laboratory, Electromagnetism, Waves and Optics**, *B.S. in Astrophysics Course.*

2011 **First semester, Assistant professor in Physic I y Physic II**, *B.S. in Astrophysics Course.*

## Programming skills

- **Programming Languages** Python, Fortran, Bash, Supermongo
- **Astronomical Softwares** RADMC-3D, CASA, MIRIAD, Class, Ds9, IDL, IRAF, Topcat, VOSpec
- Native Spanish. Fluent English. A2 German

## Outreach activities

2013-present **Co-founder & Science Communicator**, *Star Tres Project. Astronomy outreach initiative, www.startres.net.*

2017 **Scientific Assistant**, *Science collaborator in the script of the planetarium show "Bot y Lu: El Escape del Agujero Negro", planetariochile.cl.*

2008-2015 **Talk: Stellar evolution**, *School Talks, Outreach Activities in Universidad de Valparaíso.*

2012 **Member, Communication and Outreach Center**, *Universidad de Valparaíso.*

2009 **Tour guide in Astronomy section**, *Exhibition: The Max Planck Science Tunnel in Valparaíso.*