

Carolina Agurto Gangas

🌐 cagurto.github.io

✉ cagurto@das.uchile.cl

🌐 [cagurto](#)

📞 +56 988044668

Education

Ludwig-Maximilians-Universität München

Dr. rer. nat. in Astronomy

Munich, DE
Graduation: September 22nd, 2020

Universidad de Valparaiso

MSc. in Astrophysics

Valparaiso, CL
Graduation: May 2015

Universidad de Valparaiso

Licentiate in Physics with specialization in Astronomy, BSc degree

Valparaiso, 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 program 2014A-S093

Mauna Kea, HI

2-6 Jun 2016

Paranal Observatory

Observing program 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

Simple Disk Envelope (SiDE) fit framework

Available in Zenodo

[Agurto-Gangas, C.](#) and L. Szűcs.

2020

Class I protostar Per-emb-50: limits for the maximum grain size in the disk and inner envelope

Submitted to A&A

[Agurto-Gangas, C.](#); Szűcs, L.; Dominique M. Segura-Cox, Pineda, J. E.; Caselli, P.; Testi, L.

2020

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

A&A Volume 623, A147

[Agurto-Gangas, C.](#); Pineda, J. E.; Szűcs, L.; Testi, Tazzari, M., Miotello, A.; Caselli, P.; Dunham, M.; Stephens, I. W.; Bourke, T.

2019

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

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.

2017

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.; Cavedes, 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.

Detached cataclysmic variables are crossing the orbital period gap

2016

MNRAS, Volume 457, Issue 4, p.3867-3877.

Zorotovic, M.; Schreiber, M. R.; Parsons, S. G.; Gänsicke, B. T.; Hardy, A.; Agurto-Gangas, C.; Nebot Gómez-Morán, A.; Rebassa-Mansergas, A.; Schwöpe, A. D.

VVV Galactic Star Clusters: VVV CL059

2015

Proceeding VI Reunión sobre Astronomía Dinámica en Latinoamérica (ADeLA 2014), RevMexAA.

Agurto Gangas, C.; Borissova, J.; Ramirez Alegria, S.; Kurtev, R.; VVV star cluster Team

Fourteen new eclipsing SDSS white dwarf plus main-sequence binaries ...

2015

MNRAS, Volume 449, Issue 2, p.2194-2204.

Parsons, S. G.; Agurto-Gangas, C.; 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.; Breedt, E.; Copperwheat, C. M.; Hardy, L. K.; Buisset, C.; Prasit, P.; Ren, J. J.

White dwarf-main sequence binaries from SDSS DR8: unveiling the cool ...

2013

MNRAS, Volume 433, Issue 4, p.3398-3410.

Rebassa-Mansergas, A.; Agurto-Gangas, C.; Schreiber, M. R.; Gänsicke, B. T.; Koester, D.

Conferences/Schools/Workshop

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

24-28 June 2019

Poster talk: Dust properties inside and outside the disk of BHB07-11

European Week of Astronomy and Space Science. Lyon, France.

Talk: Radiative transfer modelling of a protostellar disk

4-5 April 2019

7th International Max-Planck Research School on Astrophysics (IMPRS) Symposium. MPE, Garching, Germany

Talk: Radiative transfer modelling for the Per-emb-50 protostellar disk

5-7 Dec 2018

Center for Astrochemical studies (CAS) Retreat. Ringberg, Germany

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

7-12 Oct 2018

Second Binational Meeting AAA-SOCHIAS. La Serena, Chile

II International Astrochemistry School

1-5 Oct 2018

Universidad Autónoma de Chile. Santiago, Chile

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

12 Sep 2018

MPE Science Day 2018. Garching, Germany

Poster: Revealing the dust grain sizes in the envelope of Per-emb-50

11-15 Jun 2018

Cosmic Dust: origin, applications and implications. Copenhagen, Denmark

Talk: Evidence of grain growth in Class I protostar: Per-emb-50

28-30 Jun 2017

Center for Astrochemical studies (CAS) Retreat. Ringberg, Germany

Talk: Grain growth in Class I Protostars

29 May- 23 Jun 2017

MIAPP PROGRAMME: PROTOPLANETARY DISKS AND PLANET FORMATION AND EVOLUTION. Garching, Germany

Poster: Grain growth in Class I protostar Per-emb-50: A dust continuum analysis with NOEMA & SMA

5-9 Jun 2017

Francesco's legacy: star formation in space and time. Florence, Italy.

9th IRAM millimeter interferometry School

10-14 Oct 2016

Institut de Radioastronomie Millimétrique IRAM, Grenoble, France

Talk: Grain growth in Class I Protostars

5-6 Oct 2016

2nd International Max-Planck Research School on Astrophysics (IMPRS) Symposium.
MPE, Garching, Germany

Talk: Combining the Catalina light curve catalogue and SDSS to identify new eclipsing PCEBs

Poster: Young stellar clusters in the VVV Survey containing massive YSOs
XII annual meeting of the Chilean Astronomical Society (SOCHIAS). Puerto Varas, Chile

12-15 Mar 2015

First VLT School in Chile

Universidad de Valparaíso, Chile

3-7 Nov 2014

Poster: VVV Galactic Star Clusters: VVV CL059

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

Aug 29 - Oct 3 2014

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

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

7-8 Aug 2014

MAD Planet Formation Summer School

Cerro Calán, Santiago, Chile

20-22 Mar 2013

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

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

22-26 Oct 2012

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

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

10-12 Oct 2012

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

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

3-7 Oct 2011

Awards/Grants

Concurso Fondecyt de Postdoctorado 2021 ANID

2021-2024

Understanding the dust properties and chemical diversity in Class I protostars. Nr 3210520
Top one project among 41 astronomy, cosmology and particles physics applicants

IAU's Office of Astronomy for Development Grant

2021

Asteroids workshop: A rocky adventure. PI: C. Agurto-Gangas, CoPIs: K. Rojas, J. Rey

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.
- 2020-Dec 10 **Charlas Eclipse Conexión Total, Marca Chile**, *Speaker and discussion panel*.
- 2020-Dec 2 **Cumbre de Educación y Difusión de las Ciencias 2020**, *Speaker and discussion panel*.
- 2020-Dec **Eclipse Solar Total en la región de Los Ríos**, *Several online astronomy activities in collaboration with SERNATUR*.
- 2020-Nov 25 **Programa de Investigación e Innovación Escolar (IIE) del PAR Explora RM Sur Oriente**, *Feedback and evaluation of scholar science projects*.
- 2020 **Astrocalendario**, *Illustrated astronomy calendar 2020 published by Editorial USACH*.
- 2020-May **DIVULGACON**, *Online event organized by the Museo Interactivo Mirador (MIM). National and international Edutubers and Scientist talk about different topics*.
- 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 ("Las estrellas nacen, viven y mueren")**, *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*.