

exoChile2026: Chilean Exoplanet Community Meeting

April 27-29, 2026, UCSC Concepción, Chile

Last updated: April 28, 2026

Day 1 Morning

8:30 — **Registration and arrivals.**

9:15 — **Welcome & Opening Remarks.**

Overview of objectives (*Matías Jones*) and format of the meeting (*Seba Pérez*)

9:30 — **Keynote** (*chair: Matías Jones*)

Andrés Jordán *Overview of Exoplanet Research from Chile*

10:10 — **Key Community Updates.** Short updates (7 min each) from different groups (*chair: Matías Jones*)

- David R. Anderson *La búsqueda de exoplanetas en tránsito liderada por la UCN*
- James Jenkins *Exoplanet research from UDP/CATA*
- Rafael Brahm *The WINE collaboration: Characterizing warm jupiters to solve the hot Jupiter puzzle*
- Jeremy Tregloan-Reed *Exoplanets in Chile International collaborations and northern state telescopes*
- Alice Zurlo *Exoplanet research from YEMS*
- *Gijs Mulders / Claudia Aguilera* *Exoplanets at PUC*
- Open time for updates

11:10 — **Coffee break**

11:40 — **“Vaciado”: Community Mapping.** Each (sub-)community or groups identifies:

Current strengths — Tools, facilities, and datasets — Ongoing/planned projects — Gaps, needs, opportunities and dreams

12:45 — **Group presentations**

Day 1 Afternoon

14:30 — **Lightning Talks (3 min per talk)** (*chair: Máx Moyano*)

- H. Parashivamurthy *TESS analysis of super-Earths around super small stars*
- Ricardo Ramírez *Time-domain H α spectroscopy of wide-orbit planetary-mass companions with VLT/MUSE*
- Michaela Vitkova *Warm gas giants and their friends*
- Scarlett E Royle *The effect of stellar position-velocity clustering and galactic dynamics on exoplanet properties*
- Ignacia Santiago *Long-Term Dynamical Stability of Multiplanet Systems' Rocky Exoplanets in the Habitable Zone*
- Andrea Bernardi *Spectrophotometric analysis and orbital monitoring of directly imaged substellar companions*
- Alejandra Fernández *Autoencoders for Speckle Denoising in ADI Sequences*
- Joanne Rojas Molina *RV-Astrometry Synergy in the Detection of Warm Giants*
- Ilaria Giovannini *Looking for satellites with doppler measurements of directly imaged exoplanets and brown dwarfs*
- Bárbara Rojas-Ayala *Bayesian Model Averaging for Homogeneous Stellar and Exoplanet Characterisation from Late-K to Ultracool Dwarfs*

16:00 — **Coffee break**

16:30 — **Contributed talks (10 min each)** (*chair: Nicola Astudillo-Defru*)

- Felipe Lagos-Vilches *Observational Constraints on the Incidence of Substellar Companions to Young Massive White Dwarfs with VLT/ERIS*
- Carolina Charalambous *Lithium abundance in TOI-xxx: testing the planet-engulfment hypothesis*
- Connor Cheverall *Ground-based Atmospheric Characterization of Volcanic Super-Earth L98-59d at High Spectral Resolution*
- Adam Rains *VLT/CRIRES+ observations of warm Neptune WASP-107 b: Molecular detections and challenges in ground-based transmission spectroscopy of cooler and cloudy exoplanets*
- Kevin Hoy *First Evidence of Radial Velocity Signal from Satellite(s) Around a Substellar Companion*
- Gijs Mulders *Exoplanet Water Worlds: What are they and where can we find them?*
- Claudia Aguilera-Gómez *Polluted White Dwarfs as Probes of Exoplanetary Systems*
- Jhon Yana Galarza *What Can Alpha-Enhanced Stars Tell Us About Exoplanets?*
- Marcela Best *Kepler in Kepler: how an “alien” astronomer would develop Kepler’s Third Law*

Day 1 Evening

18:00 — **Community Icebreaker** (food/drinks)

19:00 — **Public talk “Exoplanetas y vida en el espacio”** by Alice Zurlo at Universidad Católica de la Santísima Concepción

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Day 2 Morning

9:30 — **Group presentations from Community Mappings.** [NEW]

10:30 — **Panel discussion** [NEW]

- AI for exoplanets — Connor Cheverall, Cecilia Hernández and James Jenkins

11:15 — **Coffee Break**

11:45 — **Mixed-Community Dialogues.** Participants rearrange into **diverse/mixed groups**, focusing on 1–2 questions, for example:

- Collaboration opportunities
- Chile's role in global exoplanet science
- Barriers to collaboration

13:00 — Lunch break

Day 2 Afternoon

14:30 — **Lightning talks (3 min each)** (*chair: Alice Zurlo*)

- Fernando Castillo M. Survival of vortices in gas-rich debris disks
- Erick Montoya Unveiling the real geometry of the FU Orionis system
- Constanza Norambuena Herrera Polluting white dwarfs: a dynamical study
- Alex Mauch-Soriano Predicted incidence of Jupiter-like planets around white dwarfs
- Sidharth Aroli Veettil The 14N/15N and 12C/13C isotopic ratios in the protoplanetary disk around V4046 Sgr
- Constanza Castillo The formation of formaldehyde (H₂CO) in protoplanetary disks
- Marie M. Rodríguez S. Variability and Geometry of the Bry Emission in HD 100546 from VLT/GRAVITY
- Milenne Avila Bravo Planetary architectures under the influence of a stellar binary
- Lucas Gonzalez-Rivas Not Just Gas: How Solid-Driven Torques Shaped the Migration of the Galilean Moons
- Grace Batalla Falcon Evolution of the silicate feature in protoplanetary disks
- Camilo González-Ruilova Can the environment affect the planet formation?
- Hannah Osborne A homogenous analysis of small-planet masses

15:10 — **Contributed talks (10 min each)** (*chair: Gijs Mulders*)

- Nicola Astudillo-Defru Searching for terrestrial exoplanets with optimized radial velocities
- Claudio Caceres A search for free-floating planets in nearby young stellar associations
- Neda Hejazi Exploring Planetary Formation and Composition Using Detailed Chemical Abundances of Host Stars
- Philipp Weber Planet formation in the light of stellar accretion bursts
- Matthias Schreiber The importance of tides for the survival of planets during late stellar evolution

16:00 — **Coffee Break**

16:30 — **Mixed-communities Report-Back (30 min)**

- Groups summarize key ideas
- Emergent themes guide the seed-lab

18:00 — [tbc] **Community Strategy Session** (Roadmap Discussion). Possibly as a small panel

- National priorities
- Future facilities
- Student training pathways

Day 2 Evening

19:00 — **Public talk “Del Desierto de Atacama al cosmos”** by Bárbara Rojas-Ayala at Universidad Católica de la Santísima Concepción

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Day 3 Morning

10:00 — **Collaboration Seed-Labs.** Self-organized breakout groups form around concrete ideas. For example:

- Joint proposals
- Shared data/AI tools or open repositories
- Training programs or student exchanges
- Outreach and public engagement initiative

11:00 — **Seed-Lab Pitches (5 min/each).** Groups present concrete next steps and timelines.

11:30 — **Coffee Break**

12:00 — **Student-led reflection session.** A session organized by students, moderated by postdocs.

- Training needs
- Mentoring networks
- What barriers do students face in Chile and how can we help as a community?
- Guided reflections on the need of national summer schools on exoplanet research, statistics and machine learning, or other topics
- Chilean exoplanet Slack workspace

12:30 — **Next Steps and Closing Remarks**

- Who hosts exoChile2027 (or 2028?)
- Creation of communication channels

13:00 — **Farewell and Group Photo**

List of Posters

ATM-01	Benjamin Gonzalez Gonzalez Vidal	Modeling of Archean Earth-like aquaplanet atmosphere: the effect of obliquity on climate and observables of exoplanets
ATM-02	Catalina Valesca Ávalos Vega	Breaking Degeneracies in Exoplanet Atmospheres: Measuring Rayleigh Slopes in exoplanets to Infer Mean Molecular Weight
DET-01	Sebastián Elias Cabrera Astudillo	BODIES: Big Or Dinky Investigation and Evaluation System
DET-02	Marcela Cristina López Ulloa	When M Dwarfs Flicker: Are Young Exoplanets Hiding There?
DET-03	Daniela Gonzalez	The Synergy of Gaia DR4 and VLTI/GRAVITY+: Low-Mass exoplanet detection in Binary Systems
DET-04	Joanne Michelle Rojas Molina	RV-Astrometry Synergy in the Detection of Warm Giants
DET-05	Florian Rodler	Mass determination of the three long-period Neptune- and sub-Neptune-sized planets transiting TOI-282
DET-06	Cathalina Andrea Zamora Fernández	Discovery and characterization of a long period system
DET-07	Franshezka Dominik Paz Tapia Candia	The discovery and characterization of a long period system
DET-08	José Luis Ricra Mayorca	Orbital period refinement and analysis of central transit time variations of WASP-50 b using ground-based and space observations
DET-09	Jose Vines	TIC 275647095 b, an eccentric Warm Jupiter Orbiting a Solar-analog Star
DET-10	Maximiliano Moyano	Discovery and characterization of a long period system
DISK-01	Hernán René Salinas Castro	Searching for Complex Organic Molecules with JWST–MIRI in Planetesimal Formation Regions
DISK-02	Abigali Rodríguez Jiménez	Rotation curves of prototype protoplanetary discs
EDU-01	Sol Francisca Troncoso Barrías; Lindsay Rincón Torres; Thiare Antonella Molina Tapia	Introduction to Data Science through the Exploration of Exoplanets as an Educational Strategy
INST-01	Oscar Castillo Vega	An optimized implementation of the PACO algorithm.
INST-02	Ian Rickmers Blamey	Deepermoments: Deep Learning for moment maps
OUT-01	Martina Pascall Molina Riffo; Bárbara Scarlett Quilodrán Hijerra; Javiera Cajas Reyes	Astronomical Collage as a Science Communication Tool with a Gender Perspective in Exoplanet Science Outreach
SYS-01	Felipe Ignacio Rojas Henríquez	Giant companions in Super-Earth systems from TESS
SYS-02	Álvaro Ignacio Llancaqueo Albornoz	Unveiling the nature of TESS giant planets in the first PLATO Field
SYS-03	Bhavya Ambalapatta kannancheri	Is the Hot Neptune Desert Really Empty? A Comparison of TESS and Kepler.

Poster Code Legend (Numbers indicate individual posters within each thematic category.)

DET — Detection & Characterization of Exoplanets

ATM — Exoplanet Atmospheres & Climate

SYS — Planetary Systems & Demographics

DISK — Protoplanetary Disks & Planet Formation

INST — Instrumentation, Methods & Algorithms

DS — Data Science, Machine Learning & Education

OUT — Outreach, Communication & Society

Your Role as Facilitator

You are not just moderating; you are **enabling/fostering collaboration**. Your responsibilities:

- Keep discussions **focused and on time**
- Ensure **everyone participates briefly**
- Identify **connections between participants**
- [Desirable but not compulsory] Push groups toward some **concrete outcomes**

General Principles (apply throughout all sessions)

- Prioritize **clarity over completeness**
- Avoid long monologues, better to have **short interventions**
- Actively ask: **“What do you need?” and/or** What do you need to be happy/productive? Reach your goals? What are your goals?
- Look for:
 - Shared datasets or tools
 - Complementary expertise
 - Overlapping scientific questions
- Push toward **smaller groups** when natural connections appear
- [Desirable but not compulsory] Steer toward **something actionable**

Day 1 — Community Mapping (“Vaciado”, 11:40, duration 1hr)

We will work in different “**mesas de trabajo**” / **Work groups**. LOC will communicate locations to facilitators via Slack.

Groups are identified by the **color of the sticker** on your name badge.

Step 1 — [very important] Rapid Introductions (suggested duration ~20 min)

Each participant briefly states:

- Name & institution
- Research focus
- What they are currently working on
- **What they need / are looking for** (this is key).

Keep this **short (~1-2 minute per person)**

Step 2 — Live Mapping (~15 min)

As people speak, the facilitator should try to **capture patterns**, such as:

- Common research themes
- Shared datasets or instruments
- Similar methods
- Complementary needs

Step 3 — Trigger Connections (~15 min)

Use guiding questions:

- Who needs data/expertise that someone else has?
- Who is working on similar problems?
- Are there theory–observation complementarities?
- Could this become a paper or proposal?

Step 4 — [desirable but not compulsory] Form Small Clusters

Encourage spontaneous **subgroups (2–4 people)** to emerge around:

- Shared interests
- Complementary skills
- Common goals

Output of this session: A clear map of the community. And hopefully initial clusters of potential collaboration

Day 2 — Mixed-Community Dialogues (10:30, duration 1 hr)

Now participants are re-mixed across communities.

Your goal here: expand and challenge ideas, activate student participation if it doesn't happen naturally (ex: by asking what they know about other subfields or what interests them most).

Guide discussion around:

- Collaboration opportunities across subfields
- Chile's role in global exoplanet science
- Barriers (technical, institutional, cultural)

Push beyond discussion, and don't forget to GRAB A COFFEE (coffee break actually *breaks* the session in two)

Encourage participants to:

- Connect ideas from Day 1 clusters
- Identify **new interdisciplinary opportunities**
- Refine or rethink collaboration ideas

Key facilitator action: If promising ideas emerge: Encourage those people to **stay connected for the afternoon Seed-Labs**

Day 2 — Seed-Labs (15:40, duration ~40 min)

This is where ideas *could* become **concrete collaborations**. Facilitators can circulate between Seed-Lab groups, acting as catalysts to help those ideas become collaborations.

Step 1 — Form Groups Around Ideas

Participants self-organize into groups based on:

- Ideas from Day 1 or morning discussions
- New collaborations emerging during the meeting

Step 2 — Guide Toward a Concrete Plan

Each group should define (there will be a printed template/form to complete with this info):

- **What are we doing?** (clear problem/topic)
- **Who is involved?**
- **Why this collaboration?**
- **What is the concrete outcome?** Paper? Proposal? Shared dataset/tool? Training initiative?

Step 3 — Define First Steps

Push groups to specify:

- First actions
- Rough timeline
- Communication method

If there is no next step, it is not a real collaboration.

Day 2 — Seed-Lab Pitches (short summaries) (16:45)

Help groups prepare a **clear, concise pitch (5 min max)**:

They should answer:

- What is the idea?
- Who is involved?
- What will you produce?
- What are the next steps?

Encourage clarity and realism over ambition.