

ANDREA GUZMÁN MESA

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🌐 <https://aguzmanmesa.github.io>

✉ Gesellschaftstrasse 6, 3012, Bern
📍 Born: 08.06.93

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RELEVANT PROFESSIONAL EXPERIENCE

External Relations and Science Policy/Diplomacy Intern

European Southern Observatory (ESO)

📅 February 2022 – April 2022 📍 Garching bei München, Germany

- Ability to network and to write technical reports.
- Ability to carry out research by conducting interviews to relevant stakeholders such as diplomats, scientists and policy makers.

Teaching Assistant

Universität Bern

📅 February 2019 – Current 📍 Bern, Switzerland

- Preparation of physics lectures and experiments for undergraduate students both on-line and in person.
- Ability to prepare and teach technical and scientific concepts to an academic audience.

RELEVANT SCIENCE DIPLOMACY & POLICY TRAINING

The São Paulo Innovation and Science Diplomacy School

InnSciD SP 22

📅 Aug 2022 📍 São Paulo, Brazil/Online

- Science Diplomacy with particular focus on the Global South.

Barcelona Science & Technology Diplomacy Summer School

IBEI, SciTech DiploHub

📅 Jul 2022 📍 Barcelona, Spain/Online

- One of the ~ 30 fellow international participants world-wide of this very competitive 2-week program with particular focus on Europe and the Mediterranean.

TWAS-AAAS Course on Science Diplomacy

The World Academy of Science-American Association for the Advancement of Science

📅 Sept 2020 📍 Trieste, Italy/Online

- Learned the basics of science policy and diplomacy.
- Participated in role play sessions on real science diplomacy negotiation settings.

EDUCATION

PhD. in Astrophysics

Universität Bern

📅 Oct 2018 – Jan 2023 📍 Bern, Switzerland

- Analytical, modelling and programming skills on large data sets.
- Ability to work independently and in groups.
- Excellent communications skills in written papers and conferences, seminars, outreach talks.

M.Sc in Astronomy & Astrophysics

EU Erasmus Mundus Joint Master's Degree

📅 Oct 2016 – Sept 2018 📍 Austria, Italy, Germany

- Joint degree from Universität Innsbruck (Austria), Università degli Studi di Roma Tor Vergata (Italy), Universität Göttingen (Germany).
- Ability and flexibility to adapt to multilingual and diverse academic settings.

B.Sc. in Mathematics

Universidad Sergio Arboleda

📅 Jan 2010 – May 2015 📍 Bogotá, Colombia

ABOUT ME

- Astrophysicist with a strong background in science diplomacy and policy.
- Capacity to engage with key stakeholders and to communicate complex scientific information in a way that is useful for policymakers.
- Experience designing and delivering technical, scientific and outreach and activities with diverse audiences in person and online.
- Good knowledge of the European and South American academic, research and political landscape.
- Advocate for inclusion, equity and diversity of minorities in scientific fields.
- Ability to work in large, diverse and multicultural international collaborations.
- My goal is to become a game-changer in the intersection of science, policy and diplomacy.

MOST PROUD OF



Global Impact

Scholar and Ambassador of the largest network of young global leaders One Young World.



Leadership

Co-founder and co-lead of the first colombian network of women doing space-science related research CHIA.



Inspiring women in Science

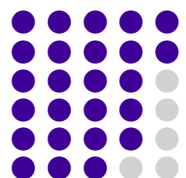
Highlighted by Forbes Science. One of the 20 Female Science Talents 2022 worldwide by Falling Walls and Bayer Foundation.

STRENGTHS

- Project design and management.
- Excellent communication and organisation.
- Scientific writing and public speaking.
- Data analysis and visualization
- Fundraising.

LANGUAGES

English
Spanish
French
Italian
Portuguese
German



REFEREES

Dr. Mariya Lyubenova

✉ [European Southern Observatory](mailto:EuropeanSouthernObservatory)

✉ mlyubeno@eso.org

Prof. Dr. Christoph Mordasini

✉ [Universität Bern](mailto:UniversitätBern)

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PUBLICATIONS

First-author articles

- Guzmán-Mesa, Andrea, Kitzmann, D., Mordasini, C., & Heng, K. (2022). Chemical diversity of the atmospheres and interiors of sub-Neptunes: a case study of GJ 436 b., 513(3), 4015–4036. doi:10.1093/mnras/stac1066. arXiv: 2204.05971 [astro-ph.EP]
- Guzmán-Mesa, Andrea, Kitzmann, D., Fisher, C., Burgasser, A. J., Hoeijmakers, H. J., Márquez-Neila, P., ... Heng, K. (2020). Information Content of JWST NIRSpec Transmission Spectra of Warm Neptunes., 160(1), 15. doi:10.3847/1538-3881/ab9176. arXiv: 2004.10106 [astro-ph.EP]

Co-author articles

- Prinoth, B., Hoeijmakers, H. J., Kitzmann, D., Sandvik, E., Seidel, J. V., ..., ... Heng, K. (2022). Titanium oxide and chemical inhomogeneity in the atmosphere of the exoplanet WASP-189 b. *Nature Astronomy*, 6, 449–457. doi:10.1038/s41550-021-01581-z. arXiv: 2111.12732 [astro-ph.EP]
- Grimm, S. L., Malik, M., Kitzmann, D., Guzmán-Mesa, Andrea, Hoeijmakers, H. J., Fisher, C., ... Heng, K. (2021). HELIOS-K 2.0 Opacity Calculator and Open-source Opacity Database for Exoplanetary Atmospheres., 253(1), 30. doi:10.3847/1538-4365/abd773. arXiv: 2101.02005 [astro-ph.EP]
- Oshagh, M., Bauer, F. F., Lafarga, M., Molaverdikhani, K., Amado, P. J., Nortmann, L., ... Zechmeister, M. (2020). The widest broadband transmission spectrum (0.38–1.71 μm) of HD 189733b from ground-based chromatic Rossiter-McLaughlin observations., 643, A64. doi:10.1051/0004-6361/202039213. arXiv: 2009.13823 [astro-ph.EP]
- Oshagh, M., TriAUD, A. H. M. J., Burdanov, A., Figueira, P., Reiners, A., Santos, N. C., ... Udry, S. (2018). Activity induced variation in spin-orbit angles as derived from Rossiter-McLaughlin measurements., 619, A150. doi:10.1051/0004-6361/201833709. arXiv: 1809.01027 [astro-ph.EP]

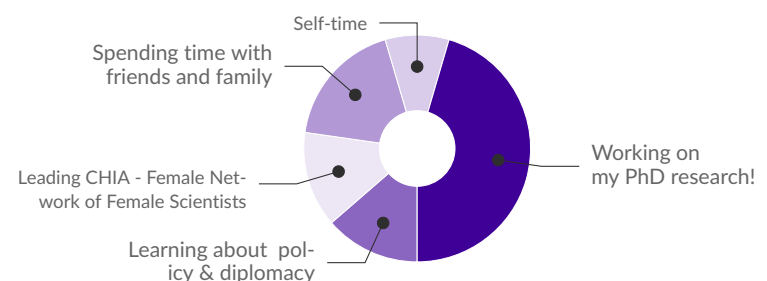
SELECTED INVITED SEMINAR TALKS

- Exploring the chemical diversity of sub-Neptune planets. University of Lund, Sweden. June 2022.
- Exploring the chemical diversity of sub-Neptune planets. Carnegie Institution for Science, US. May 2022.
- Exploring the chemical diversity of sub-Neptune planets. ESO Chile Colloquium, Chile. May 2022.
- Exploring the chemical diversity of sub-Neptune planets. Arizona State University, US. April 2022.
- Exploring the chemical diversity of sub-Neptune planets. Ohio State University, US. December 2021.
- Exploring the chemical diversity of sub-Neptune planets. University of Maryland, US. November 2021.
- Exploring the chemical diversity of sub-Neptune planets. University of Oxford, UK. November 2021.
- What is the information content of James Webb Space Telescope transmission spectra?. Swiss Society for Astrophysics and Astronomy General Assembly, Switzerland. November 2021.

SOME OTHER RELEVANT EXPERIENCE

- EU TalentON applications' reviewer for the Climate neutral and Smart cities mission arena. July 2022
- Volunteer at the Rendez-vous: Forschende in Gespräch organized by Foundation Science et Cité in Bern, Switzerland. August 2021.
- Co-founder and co-leader of CHIA (Female Colombians doing research in Astroscience): First network of female colombian scientists doing research in space related science. 2019 – present.
- Organizer/Volunteer of the First edition of the Pint of Science Festival in Bern, Switzerland. May 2019.

A DAY OF MY LIFE



AWARDS, FELLOWSHIPS & SCHOLARSHIPS

- One Young World (OYW) Summit delegate with the Technovators for social good scholarship (CHF 6500).
- EQUAL Opportunity Grant, NCCR PlanetS (EUR 1500).
- One of the 20 world-wide participants of the 1-year Intensive Track Female Science Talents Fellowship Programme, Falling Walls Foundation & Bayer Foundation, Germany.
- SSAA & MERAC (Mobilising European Research in Astrophysics and Cosmology) Funding and Travel Award (EUR 5000).
- Open Round, Universität Bern (CHF 5000).
- Young Academics Support, University of Bern (CHF 1700).
- SSAA Young Scientist Travel Support, Swiss Society for Astronomy and Astrophysics (CHF 1000).
- Erasmus Mundus Consortium Student Scholarship for partner-country students (EUR 49000).