



Latinamerican Association of Space Geophysics
Asociación Latinoamericana de Geofísica Espacial
Associação Latino-americana de Geofísica Espacial

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*Ciencia hay una sola y comunidad
científica una sola.*

Juan G. Roederer (Cuba 1993)

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1. XII COLAGE (Eleventh Latin American Conference on Space Geophysics)

1.1 XII COLAGE REPORT

From 27 November to 02 December 2022, the XII Latin American Conference on Space Geophysics (COLAGE) took place in São José dos Campos, Brazil. This traditional conference, which has the objective of congregating students and researchers from Latin America, had 211 participants from 16 countries, including attendants from the USA, Europe, Africa, and Asia, who encompass fascinating dimensions of Space Geophysics such as Heliosphere, Cosmic Ray, Sun-Earth connections, Magnetosphere, Ionosphere, Neutral Upper Atmosphere, Space Weather, Solar Physics, Space Physics, and Nonlinear Processes in Space Geophysics.

Latin America has demonstrated the presence of numerous research teams that have achieved notable progress in the field of Space Geophysics. These advancements encompass theoretical, computational, and experimental contributions, as well as active participation in scientific campaigns within global initiatives. This conference served as a valuable occasion for the scientific community to convene, exchange their latest discoveries, and foster collaborative endeavors among researchers.

The XII Organizational Committees were:

Scientific Organizational Committee:

Americo Gonzalez Esparsa, UNAM, Mexico
Clezio De Nardin, INPE, Brasil
Sergio Dasso, UBA, Argentina
Christiano Brum, Arecibo, EUA
Láysa Resende, INPE - CBJLSW, Brazil
Marco Milla, PUCP, Peru
Maria Graciela Molina, UNT, Argentina
Ana Paulino, UEPB, Brazil
Alessandra Pacini, CU-CIRES/NOAA-NCEI, EUA
Jean Carlos Santos, UTFPR, Brazil
Ramón Caraballo, UNAM, Mexico
Marcos Vinicius Dias Silveira, Catholic Un. of. America*, EUA
Abraham Chian, Un. Adelaide, Australia
Daniel Gomez, UBA, Argentina
Juan Alejandro Valdivia, UCHILE, Chile

Local Organizational Committee:

Clezio Marcos De Nardin, INPE, President

Alisson Dal Lago, INPE
Igo Paulino, UFCG
Jean-Pierre Raulin, CRAAM Mackenzie
Joaquim Eduardo Rezende Costa, INPE
Juliano Moro, INPE & CBJLSW
Láysa Cristina Araujo Resende, INPE & CBJLSW
Marlos Rockenbach da Silva, INPE
Maurício José Alves Bolzan, UFJ
Patrícia Leite, INPE
Phablo de Araújo Souza, UFJ, IC
Sony Su Chen, INPE, MSc

Keynote Talks:

‘Unveiling The Interplay of Convection, Drift, And Diffusion on GCR Modulation In The Inner Heliosphere Using Light Gradients Boosting Machines’ by Fadil Inceoglu.
‘The Present and Future in Operational Space Weather International Cooperation’, by Mamoru Ishii.
‘STORM: A Magnetospheric Imaging Mission’, by David G. Sibeck and the Storm Team
‘An Overview of The Intriguing Descending Layers over The Brazilian Sector Based on Recent Finds’, by Ângela M. Santos et al.
‘Analysis Of Sunspots and Flares Using Solar Acoustic Models Which Propagate In The Solar Interior’, by Maria C. de A. R. Soares.
‘Rossby Waves as An Organizing Mechanism for The Magnetic Activity Of The Sun’, by Breno Raphaldini.
‘Exploring The TeraHertz Sun’, by Paulo Simões.
‘Geomagnetic Field Fluctuations in South America For The Last Millennia’, by Gelvam A. Hartmann.
‘On Ionospheric Scintillation and Total Electron Content Observations Made By Low-Cost GNSS-Based Radio Sensors’, by Fabiano Rodrigues et al.
‘MLT Studies Along the Andes Mountain Range Using Multistatic Meteor Radar Configurations’, by Frederico Conte et al.
‘The Research and Service Plans of EMBRACE Program’, by Joaquim E. R. Costa and Embrace Team.



Figure 1: Official Photo, COLAGE 2022

Also, during the conference, a hundred and eighty-eight papers were presented during the meeting, being 74 orals and 112 posters distributed among seven sessions: Solar Physics, Solar Wind, Planetary Magnetospheres, Cosmic Rays, Ionosphere, and the Upper Atmosphere, Plasma Physics and Nonlinear Processes in Space Geophysics, and Space Weather.



Figure 2. Poster Sessions, COLAGE 2022.

Two plenary talks were presented. Firstly, 'The Electrojet Zeeman Imaging Explorer (EZIE) Mission: Science, Data Products, And Opportunities' by R. Mesquita, and secondly 'Catalyzing Academic and Private Partnerships in The Use of Big Data for Space Exploration and Human Benefit' by Madhulika Guhathakurta. Two prizes were awarded after each plenary: Mario Acuña AWARD and Ruth Gall AWARD, respectively.

The Ruth Gall Award is given to a renowned researcher who has made significant collaborations with multiple scientific groups affiliated with Latin American institutions. Dr. Elizaveta Antonova from the Skobeltsyn Institute of Nuclear Physics at Lomonosov Moscow State University received the prestigious Ruth Gall Prize.

The Mario Acuña Award is granted to an esteemed scientist working at an educational and/or research institution in Latin America, whose exceptional contributions have played a pivotal role in establishing scientific infrastructure for Space Science research, whether on Earth or onboard spacecraft, in one or more countries within the region. Dr. Sergio Dasso from LAMP (IAFE UBA/CONICET & DCAO FCEN-UBA) was honored with the esteemed Mario Acuña Prize.



Figure 3. Ruth Gall Award to Dr. Elizaveta Antonova.



Figure 3. Mario Acuña Award to Dr. Sergio Dasso.

Also, this year, Roberto Manzano prize awardees were:

Session 1: SPACE WEATHER

Juan S. Hincapie Tarquino (UNAL, Colombia)

"Development of a multi-element phased array solar radio interferometer at 1.42 GHz"

Session 2: IONOSPHERE AND UPPER ATMOSPHERE

Carlos Castillo Rivera (UDEEC, Chile)

"Travelling ionospheric disturbances in the near and far field induced by earthquakes/tsunamis"

Session 3: SOLAR PHYSICS, HELIOSPHERE, COSMIC RAYS

Diego Prado Barroso (INPE, Brazil)

"Sunspot waves at high resolution"

Session 4: SOLAR WIND, MAGNETOSPHERE AND GEOMAGNETISM

Hadassa Raquel Peixoto Jacome (INPE, Brazil)

"Jovian decametric radio emissions induced by Europa"

Session 5: SPACE PLASMA PHYSICS AND NONLINEAR PROCESSES IN SPACE GEOPHYSICS

Ana Luiza Piragibe Freira (University of Brasilia, Brazil)

"Lagrangian chaotic mixing in numerical simulations of resistive drift-wave turbulence in plasmas"

This award is granted to the best contribution presented in COLAGE which has a student as the first author. One award will be given per each of the COLAGE sessions.

Additionally, this year, for the very first time, COLAGE dedicated a session to address, deliberate, and formulate an action plan to combat gender biases within our community. This panel, titled "Latinxs in Space Geophysics: Exploring Gender Bias in ALAGE/COLAGE," was spearheaded by four young and accomplished female scientists: Dr. Laysa Resende (INPE), Dr. Vânia Andrioli (INPE), Dr. Alessandra Abe Pacini (NOAA), and Dr. María Graciela Molina (FACET-UNT). It marked the inaugural stride toward fostering a more inclusive ALAGE. Stay tuned for further updates and information on this initiative, as well as upcoming activities in the pipeline. For further information, see Annex III.



Figure 4. Panel 'Latinxs in Space Geophysics: Exploring Gender Bias in ALAGE/COLAGE'.

1.2 XI ASSEMBLY REPORT

Date: 2 December 2022, INPE, Sao Jose Dos Campos, Brazil.

CD (Committee of Delegates): Dr. Clezio de Nardin (president), Dr. Americo Gonzalez Esparza (vice-president), Dr. Marco Milla (International Secretary), Dr. M. Graciela Molina (Information Secretary) y Dr. Juliano Moro (Treasurer).

The first point in the meeting began with the presentation of the CD's report by the president (see Annex I).

Additionally, the discussion regarding the ALAGE organization and its financial and structural issues left some important open questions which are summarized as follow:

Dr. Ramon Lopez commented on ALAGE's inability to charge members who do not attend COLAGE (a meeting or event, possibly).

Dr. De Nardin mentioned that the issue of collection was addressed in the CD (possibly referring to some document or decision), but first, the statutes must be modified. He indicated that the revision of the statutes would be approved or discussed at the next assembly.

Dr. De Nardin raised several questions and concerns related to ALAGE's statutes, such as the absence of a clause on how to leave ALAGE (stop being members), the necessity of legal status, and how to handle membership payments. He also proposed establishing an ALAGE headquarters.

Dr. Victor Pinto suggested considering options in different locations, including Panama, the Bahamas, and the USA.

Dr. Lopez shared his experience in various associations and proposed one option for ALAGE to be under the umbrella of a larger association, where payments can be made through this larger association.

Dr. Dasso provided an example of a foundation in Argentina called "Fundacen" that is dedicated to managing funds for research, possibly as a reference or comparison.

In addition, during the assembly, several important motions were brought forth, reflecting the members' commitment to strengthening the organization and its governance. Dr. De Nardin proposed the first motion, calling for a thorough bylaw review conducted by a dedicated committee.

This motion received widespread support, with Dr. Lopez suggesting that the committee responsible for the review should be elected later by the CD.

Furthermore, it was agreed that the committee must submit their findings and recommendations up to one month before the next COLAGE to ensure transparency and member engagement.

Dr. Victor Pinto introduced the second motion, which introduce a formal code of conduct within the organization. Dr. Lopez, who was also in charge of the statute review committee, seconded this motion. The majority voted in favor, underscoring the organization's commitment to upholding ethical standards and promoting a respectful and inclusive environment.

The final motion was initiated by the students, who requested the creation of an ALAGE students' board, citing the presence of representatives from eight different countries. This motion received strong support from both Dr. Lopez and Dr. De Nardin, and it was approved by a majority vote. Dr. López, in response to the students' request, suggested incorporating the student branch into the organization's statutes and considering their inclusion in the future as members of the Committee of Delegates (CD).

This step demonstrates the organization's responsiveness to the diverse needs and voices of its student members, further enhancing its inclusivity and representation. These motions collectively signify a proactive approach to governance, promoting transparency, ethical conduct, and inclusivity within the organization.

In the next point of the agenda, the proposal for the XIV COLAGE, presented by Dr. Gonzalez Esparza, to be held in Mexico from April 8 to 13, 2024, received majority approval in the vote.

Finally, to conclude the assembly, the new board members and country representatives were elected. Hence Dr. Américo Gonzalez Esparza was elected as the new President of ALAGE, assuming a leadership role within the organization. Dr. Inez Batista proposed Dr. María Graciela Molina as Vice-President, and this proposal received unanimous support. Additionally, Dr. Carolina Salas Matamoros was nominated for the position of Information Secretary, which was approved by a majority vote. Similarly, Dr. Ramón López was proposed for the position of International Secretary and secured approval from the majority. Lastly, Dr. Gonzalez Esparza appointed Dr. Alisson Dal Lago as the organization's Treasurer.



Figure 5. New ALAGE board.

On the other hand, the Election of national representatives of countries was as follows:

- Argentina: Cesar Bertucci
- Bolivia: Ronald Winkelmann
- Brazil: Marlos Rockenbach da Silva
- Chile: Victor Pinto
- Colombia: Juan Sebastian Hincapié Tarquino
- Costa Rica: Heidi Gutierrez
- Ecuador: Pamela Carolina Pesante Cabrera
- Mexico: Maria Sergeeva
- Perú: Marco Milla
- Puerto Rico: Petrina Santos
- USA: Yaireska Collado- Vega
- Venezuela: Dinibel Perez

1.3. COLAGE PROCEEDINGS

The proceedings of the COLAGE XII will be published by Journal of Atmospheric and Solar-Terrestrial Physics (JASTP) through the following special issue (SI):

SI: “Recent Advances in Space Geophysics including COLAGE”

This special issue welcomes scientific results on the topics covered by the five sessions of COLAGE: Space Weather; Ionosphere and Upper Atmosphere; Solar Physics, Heliosphere and Cosmic rays; Solar Wind, Magnetosphere and Geomagnetism; and Space Plasma Physics and Nonlinear Processes in Space Geophysics and can include modeling, measurements, and data analysis which can contribute to the advances of the Space Geophysics in general.

To submit the manuscript before the submission deadline 31-July-2023: via journal online submission system at <https://www.editorialmanager.com/jastp/default2.aspx> and select the article type of “VSI:COLAGE’s Special Edition”.

Guest Editors

Inez Batista

Livia Alves

Clezio De Nardin

Sergio Dasso

Juan Valdivia

1.4. CONCLUSION

As a conclusion, the XII Latin American Conference on Space Geophysics (COLAGE) was a dynamic and insightful event that brought together researchers, scientists, and students from around the world to explore the multifaceted realm of Space Geophysics. Throughout this conference, we embarked on a journey of discovery, collaboration, and reflection, and we find ourselves enriched by the knowledge shared and the connections made.

COLAGE 2022 was a remarkable platform for the exchange of ideas and the presentation of cutting-edge research. The 188 papers, including 74 oral presentations and 112 posters, covered a broad spectrum of topics, ranging from the intricacies of the Sun's behavior to the mysteries of cosmic rays and the complexities of space weather. The diversity of sessions allowed us to delve deep into various facets of Space Geophysics, underscoring the interdisciplinary nature of our field.

One significant milestone of this conference was the dedication of a session to address and confront gender biases within our community. The "Latinxs in Space Geophysics: Exploring Gender Bias in ALAGE/COLAGE" panel served as the inaugural stride toward fostering a more inclusive ALAGE. We recognize that achieving equality and inclusivity is an ongoing journey, and we look forward to further updates and activities designed to promote diversity and gender equity within our community.

We concluded this Conference with a greater understanding of Space Geophysics, a field that continues to push the boundaries of our knowledge, and we remain inspired by the dedication and passion of the researchers and scientists who contribute to this field.

We express our gratitude to the organizers, presenters, and attendees who made COLAGE 2022 a success. We anticipate with excitement the future research, discoveries, and innovations that will emerge from the ideas exchanged during this conference. Together, we move forward, committed to advancing the frontiers of Space Geophysics, fostering inclusivity, and continuing our collective journey of exploration and understanding.

Until we meet at COLAGE 2024, let the spirit of COLAGE endure, and may it inspire us to reach for the stars, both in our research and in our pursuit of a more inclusive and equitable scientific community.

2. INTERNATIONAL SPACE SCIENCE SCHOOL – ISSS

2.1 LOCAL ORGANIZATIONAL COMMITTEE:

Alisson Dal Lago (INPE)

Marlos Rockenbach da Silva (INPE)

Livia Ribeiro Alves (INPE), Sony Su Chen (INPE)

Laysa Cristina Araújo Resende (CBJLSW)

Leonardo Klaus (INPE)

Ana Clara da Silva Pinto (INPE)



Figure 6. Attendance at the International Space Science School, INPE.

The International Space Science School - ISSS was aimed at Undergraduate, Masters, and Doctoral candidates from around the world. It was connected to the XIII COLAGE (Latin-American Conference on Space Geophysics). The ISSS School has taken place from the 24th to the 26th of November 2022 and its venue was the National Institute for Space Research (INPE), São Jose dos Campos, SP, Brazil. Historically several ALAGE conferences held an associated school, although their formats and names varied from one another. The COLAGEs are held since 1988 every 2-3 years and in 2022 it was at its 13th edition. This means that the COLAGE associated schools are also a relatively long-lasting tradition. The XIII COLAGE venue also was at INPE, just after the ISSS School. Besides ALAGE

association the school is also supported by INPE's Space Geophysics Postgraduate Program which is a very traditional postgraduate program on subjects related to Space Sciences.

2.2. TOPICS OF THE ISSS SCHOOL

- The Sun and the Solar Activity
- The Interplanetary Medium and the Solar Wind
- The Magnetosphere
- The Ionosphere
- The Upper Atmosphere
- Planetary Sciences
- Space Weather

The ISSS School was planned to last for 3 whole days. In each half-day, one main subject has been addressed. These main subjects were divided in an introductory lecture given by an expert on the field, followed by 3 specific shorter duration lectures on the same subject which was dipped theoretical aspects, data analysis, simulations and/or instrumentation.

The ISSS school was planned to be preferentially presential however sanitary conditions may require adjustments. The existing infrastructure was prepared for a hybrid or virtual format.

2.3. THE LECTURES OF THE SCHOOL

- Germany: **Shahin Jafarzadeh** (MPS)
- USA: **Nour Raouafi** (APL); **David Sibeck** (NASA/GSFC)
- Netherlands: **Daniel Müller** (ESTEC)
- Finland: **Emilia Kilpua** (Univ. Helsinki)
- Argentina: **Sergio Dasso** (IAFE/UBA), **Pablo Dmitruk** (IAFE/UBA), **Cesar Bertucci** (IAFE/UBA)
- Chile: **Victor Pinto** (Univ. Santiago)
- China-Brazil: **Walter Gonzalez** (CBJLSW), **Ligia Alves da Silva** (CBJLSW), **Paulo Jauer** (CBJLSW), **Vania Fatima Andrioli** (CBJLSW)
- Brazil: **Luis Eduardo Vieira** (INPE), **Clezio Marcos De Nardin** (INPE), **Inez Staciari Batista** (INPE), **E. Alam Kherani** (INPE), **Delano Gobbi** (INPE), **Paulo Prado Batista** (INPE), **Eliah F. M. São Sabbas** (INPE), **Cristiano Max Wrasse** (INPE), **Ezequiel Echer** (INPE), **Guillermo Gimenez de Castro** (CRAAM/Mackenzie), **Erico Rempel** (ITA), **Paulo Fagundes** (UNIVAP)

2.4. DISTRIBUTION OF ATTENDEES

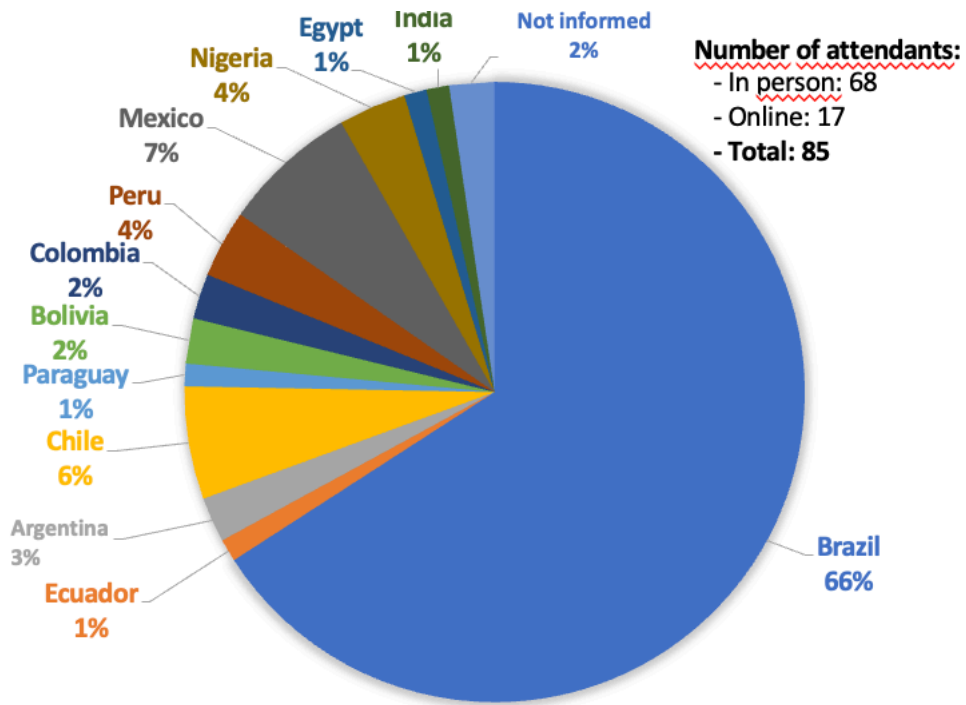


Figure 7. Distribution of attendees by affiliation.

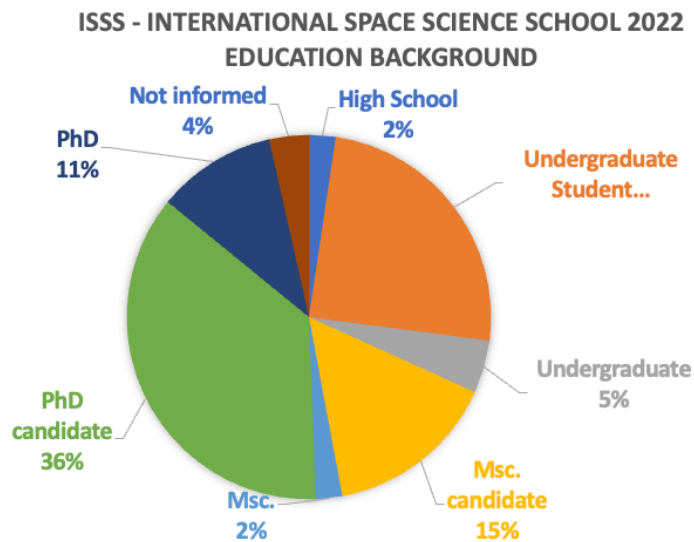


Figure 8. Distribution of attendees by Education Background.

3. ANNOUNCEMENTS

3.1. XIV COLAGE - Conferencia Latinoamericana de Geofísica Espacial



(<https://www.rice.unam.mx/colage2024/>)

Total Solar Eclipse México

Monterrey, NL, México

8-13 April 2024

The system is open for pre-registration, abstract submissions, and the link for the optional solar total eclipse tour registration.

Important Deadlines:

Web page open for abstract submission: 1 October 2023

Deadline for abstract submission: 8 January 2024

Web page open for preregistration: 30 June 2023

Web page open for early registration: 15 October 2023

Web page open for standard registration: 15 November

Web page open for application for travel support: 15 October 2023

Deadline for application for travel support: 8 December 2023

The XIV COLAGE will take place in Monterrey, NL, Mexico, at the Library Raúl Rangel Frias-UANL (<https://goo.gl/maps/NQJ1C3DUtCh6YQdq8>) from 9-13 April on the occasion of the Total Solar Eclipse in Mexico in 2024 (<https://eclipse2024.org/>).

As optional, there is a trip to observe the Total Solar Eclipse in Cuatro Ciénegas, Coahuila, one day before the beginning of the conference (leaving Monterrey on Sunday 7th, and coming back to Monterrey on Saturday 8th, after the eclipse)

Contributed and invited talks will be organized in the following scientific sessions:

Scientific Organizing Committee:

Coordinator:

J. Américo González Esparza (LANCE-UNAM) (americo@igeofisica.unam.mx)

1. Space weather:

Graciela Molina (UNT-Argentina) (gmolina@herrera.unt.edu.ar)

Yairesca Collado (NASA-USA) (yaireska.m.colladovega@nasa.gov)

Clezio Marcos De Nardin (INPE-Brazil) (clezio.denardin@inpe.br)

2. The Ionosphere and Upper Atmosphere:

Maria Sergeeva (LANCE-UNAM-Mexico) (maria.a.sergeeva@gmail.com)

Laysa Cristina Araújo Resende (INPE-Brazil) (laysa.resende@inpe.br)

Danny Scipión Castillo (ROJ-Peru) (dscipion@igp.gob.pe)

Ana Georgina Elias (UNT-Argentina) (aalias@herrera.unt.edu.ar)

3. Solar Physics, Heliosphere, Cosmic Rays:

Hebe Cremades (UTN-Argentina) (hebe.cremades@frm.utn.edu.ar)

José Valdés Galicia (LANCE-UNAM) (jfvaldes@igeofisica.unam.mx)

Ernesto Aguilar-Rodríguez (LANCE-UNAM-Mexico) (ernesto@igeofisica.unam.mx)

4. Solar Wind, Magnetosphere

, and Geomagnetism:

Ramón López (UTA-USA) (relopez@uta.edu)

Marina Stepanova (USACH-Chile) (marina.stepanova@usach.cl)

Sergio Dasso (UBA-Argentina) (dasso@df.uba.ar)

Ligia Alves da Silva (INPE-Brazil) (ligia.alves01@gmail.com)

5. Space Plasma Physics and Nonlinear Processes in Space Geophysics:

Juan A. Valdivia (UCHILE-Chile) (alejo@uchile.cl)

Pablo Ariel Dmitruk (UBA-Argentina) (pdmitruk@df.uba.ar)

Abraham Chian (abrahamchian@gmail.com)

International Space Sciences School (ISSS):

Esmeralda Romero Hernández (LANCE-UANL) (esmeralda.romerohdz@uanl.edu.mx)

Julio Mejía Ambriz (LANCE-UNAM) (jcmejia@geofisica.unam.mx)

Mario Rodríguez (LANCE-UNAM) (mrodriguez@enesmorelia.unam.mx)

Luis Xavier González M. (LANCE-UNAM) (xavier@igeofisica.unam.mx)

For further details on the XIV COLAGE, please visit: <https://www.rice.unam.mx/colage2024/>

COLAGE email address: colage2024@igeofisica.unam.mx

4. COMMUNICATION

To improve the communication among the ALAGE community members, the information secretary has enabled new channels. Currently, information is delivered using the newly updated and improved web page, mailing list and social networks. As usual, each member can access this information through their national representatives.

Website: <http://www.alage.org/>

Information Secretary mail: alage.information@gmail.com

Facebook page: @alage.official

Twitter: @ALAGE_official

5. ACKNOWLEDGMENTS

The ALAGE Information Secretary thanks all the contributions submitted to this bulletin from colleagues and National Representatives of ALAGE.

ANNEX I. REPORT OF THE PRESIDENT

XII Latin American Conference on Space Geophysics: Short summary

From 27 November to 02 December 2022, the XIII Latin American Conference on Space Geophysics (COLAGE) took place in São José dos Campos, Brazil. This traditional conference, which has the objective of congregating students and researchers from Latin America, had 211 participants from 16 countries, including attendants from the USA, Europe, Africa, and Asia. The meeting focused in debating five big scientific sessions: (1) Space Weather; (2) Ionosphere and upper atmosphere; (3) Solar physics, heliosphere, and cosmic rays; (4) Solar wind, magnetosphere, and geomagnetism and (5) Space plasma physics and nonlinear processes in space geophysics. A hundred and eighty-eight papers were presented during the meeting, being 74 orals and 112 posters. Two plenary talks were presented, the first one “Electrojet Zeeman Imaging Explorer (EZIE) Mission: Science, Data Products, And Opportunities” by Dr. Rafael Mesquita from Johns Hopkins University Applied Physics Laboratory, USA, and the second one “Catalyzing Academic and Private Partnerships in the Use of Big Data for Space Exploration and Human Benefit” from NASA, USA. A panel about the “Latinxs in Space Geophysics: Discussing Gender Bias in ALAGE/COLAGE” was presented and discussed as well. The main results presented during the meeting are going to be published in a Special Issue of the Journal of Atmospheric and Solar-Terrestrial Physics, which is also open to receive contributions from anywhere in the world. During the meeting, traditional awards from the Latin American Association of Space Geophysics (ALAGE) were delivered: The awarded researchers were Dr. Sergio Dasso (Mario Acuña award); Dr. Elizaveta Antonova (Ruth Gall award) and the following students: Juan S. Hincapie Tarquino, Carlos Castillo Rivera, Diego Prado Barroso, Hadassa Raquel Peixoto Jacome and Ana Luiza Piragibe Freira (Roberto Manzano Award). The meeting ended after the General Assembly of ALAGE, which elected the new directory board, the national representative from the Latin American countries and chose Monterrey, Mexico, as the host for the XIV COLAGE from 8 to 13 April 2024. Finally, the LOC of XIII COLAGE express the gratitude to the sponsors, which helped to make this meeting a success. We hope to see you in Mexico in 2024 during the XIV COLAGE, when we will have the opportunity to discuss science and see, in person, a total solar eclipse.

São José dos Campos, 03 January 2023.

Dr. Clezio Marco De Nardin

President of the XIII COLAGE

ANNEX III. LATINEX COLAGE 2022 PRESENTATION.

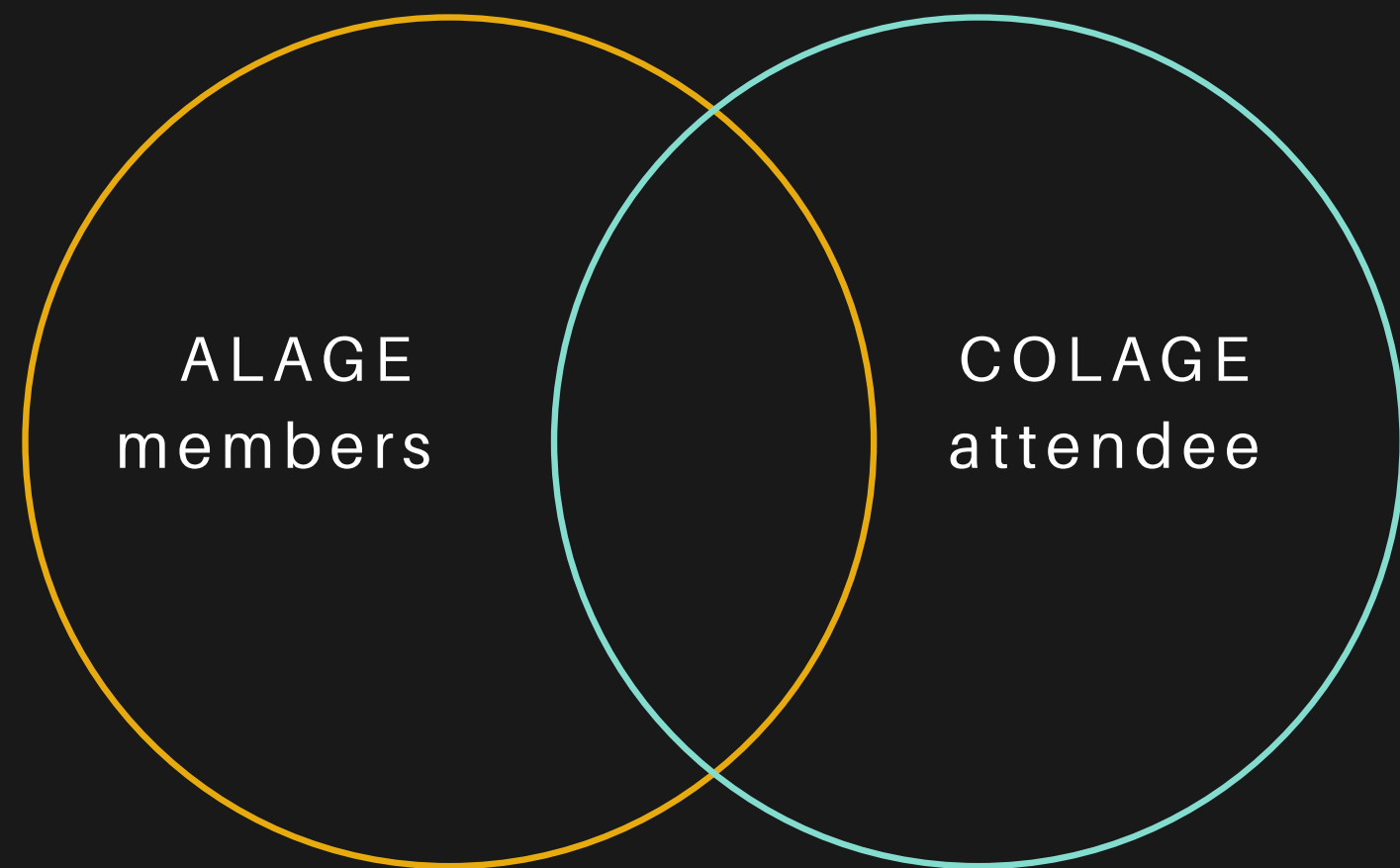


LATINXS IN SPACE
GEOPHYSICS: DISCUSSING
GENDER BIAS IN ALAGE/COLAGE

ALAGE & COLAGE

XII COLAGE 2022

COLAGE LATINX - PRE-PLENARY SURVEY



- First time in ALAGE. To acknowledge different issues related (mainly) to gender bias - started in the Assembly last year in virtual XI COLAGE in Chile
- To have tools for diagnostics
- Until 01/Dec - 11 AM
- 40 responses (~ 132 COLAGE attendants - ~251 ALAGE members
 - **This is the first result! difficult to diagnose what is happening in our community**

**THANK YOU ! FOR YOUR
INVOLVEMENT!**

WHAT ABOUT ALAGE

Let's see some numbers



CD

1/5

20%

NR

5/10

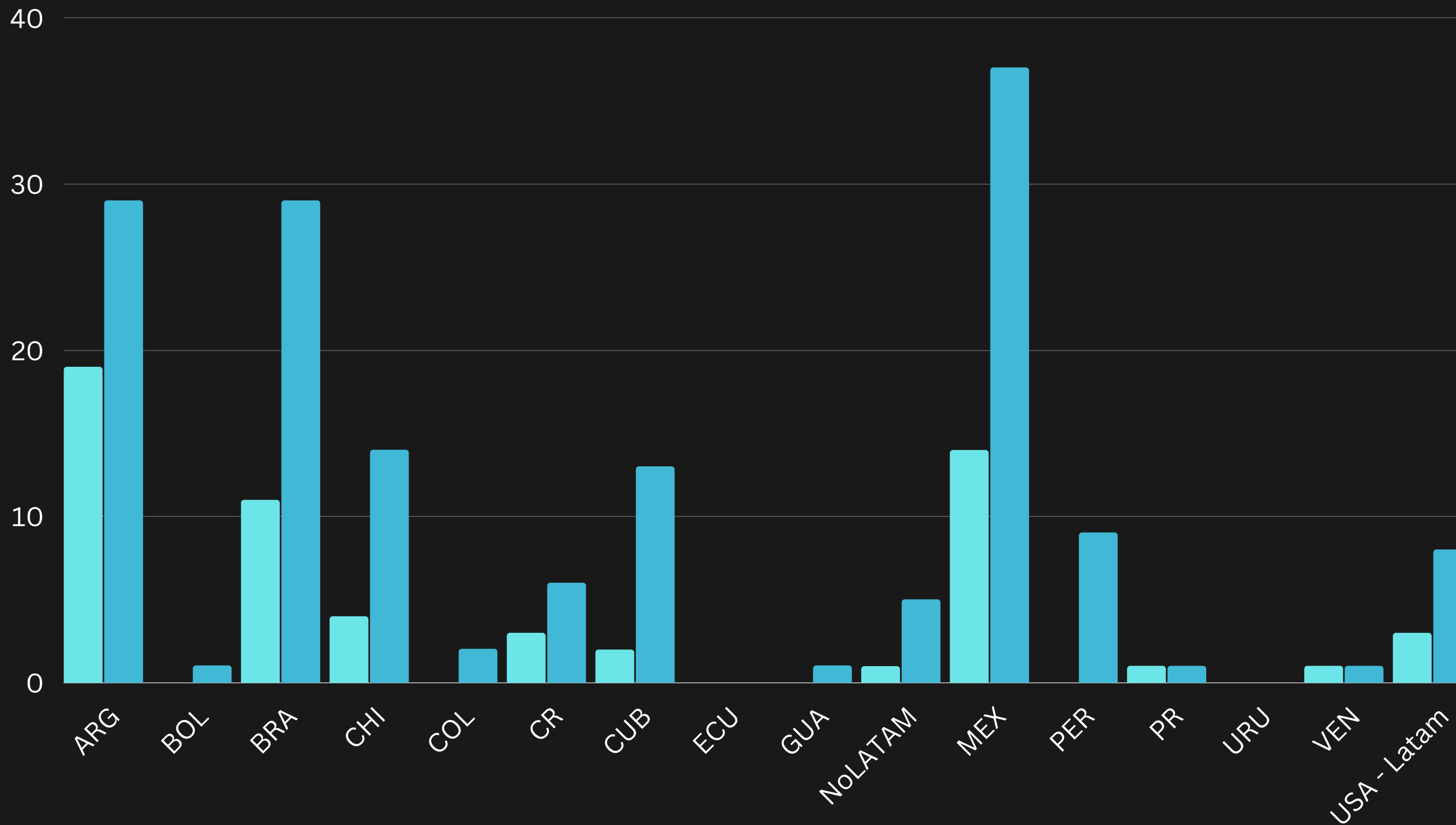
50%

ALAGE MEMEBERS

58/156

~ 37%

ALAGE BY COUNTRY



DISCLAIMER

- Data updated by NR
- We haven't asked for gender or race(uncertain)
- There may be data missing (former ALAGE members, new ones, etc)

WHAT ABOUT COLAGE

Let's see some numbers

LOC

1/10

10%

SOC

5/10

50%

CHAIRS

4/15

~ 26%

**INVITED
SPEAKERS**

2/11

~ 18%

PARTICIPANTS

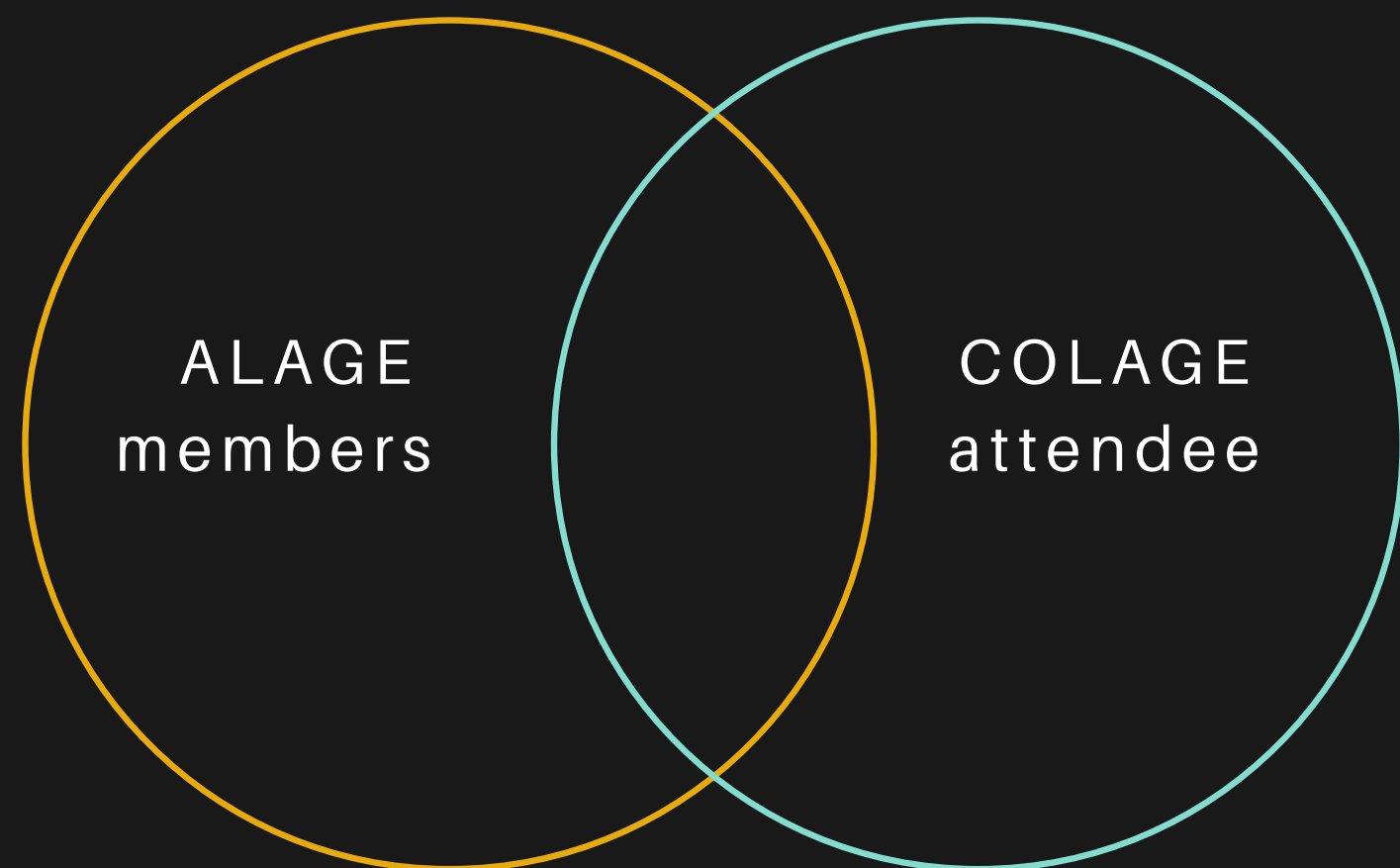
42/127

~ 19%



COLAGE LATINX - PRE-PLENARY SURVEY

- First time in ALAGE. To acknowledge different issues related (mainly) to gender bias - started in the Assembly last year in virtual XI COLAGE in Chile
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- 40 responses (~ 132 COLAGE attendants - ~251 ALAGE members
 - **This is the first result! difficult to diagnose what is happening in our community**



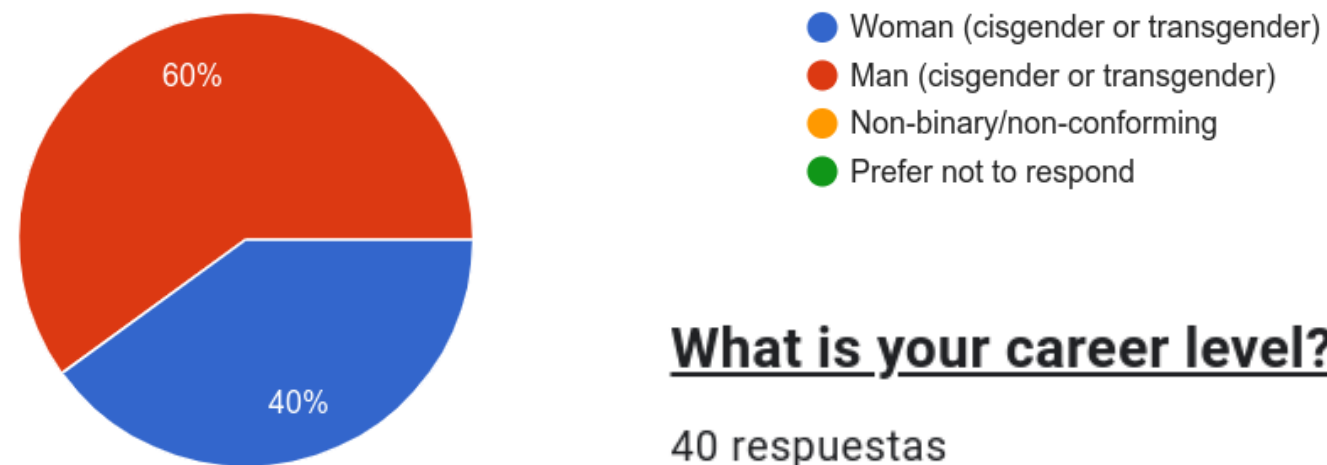
**THANK YOU ! FOR YOUR
INVOLVEMENT!**

What is your gender identity?



Please note that: Gender is not necessarily the persons' sex (the biological status usually assigned at birth). Gender is often defined as a social construct of norms, behaviors and roles that varies between societies and over time. Gender identity is one's own internal sense of self and their gender, whether that is man, woman, neither or both. Unlike gender expression, gender identity is not always visible to others.

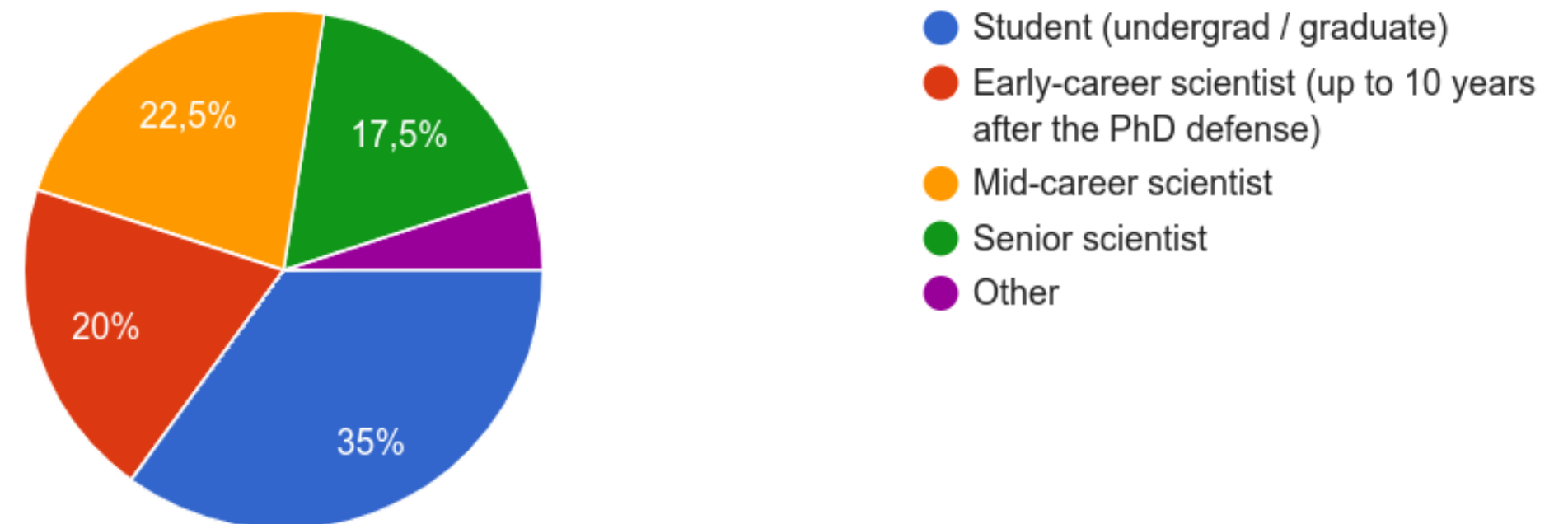
40 respuestas



What is your career level?



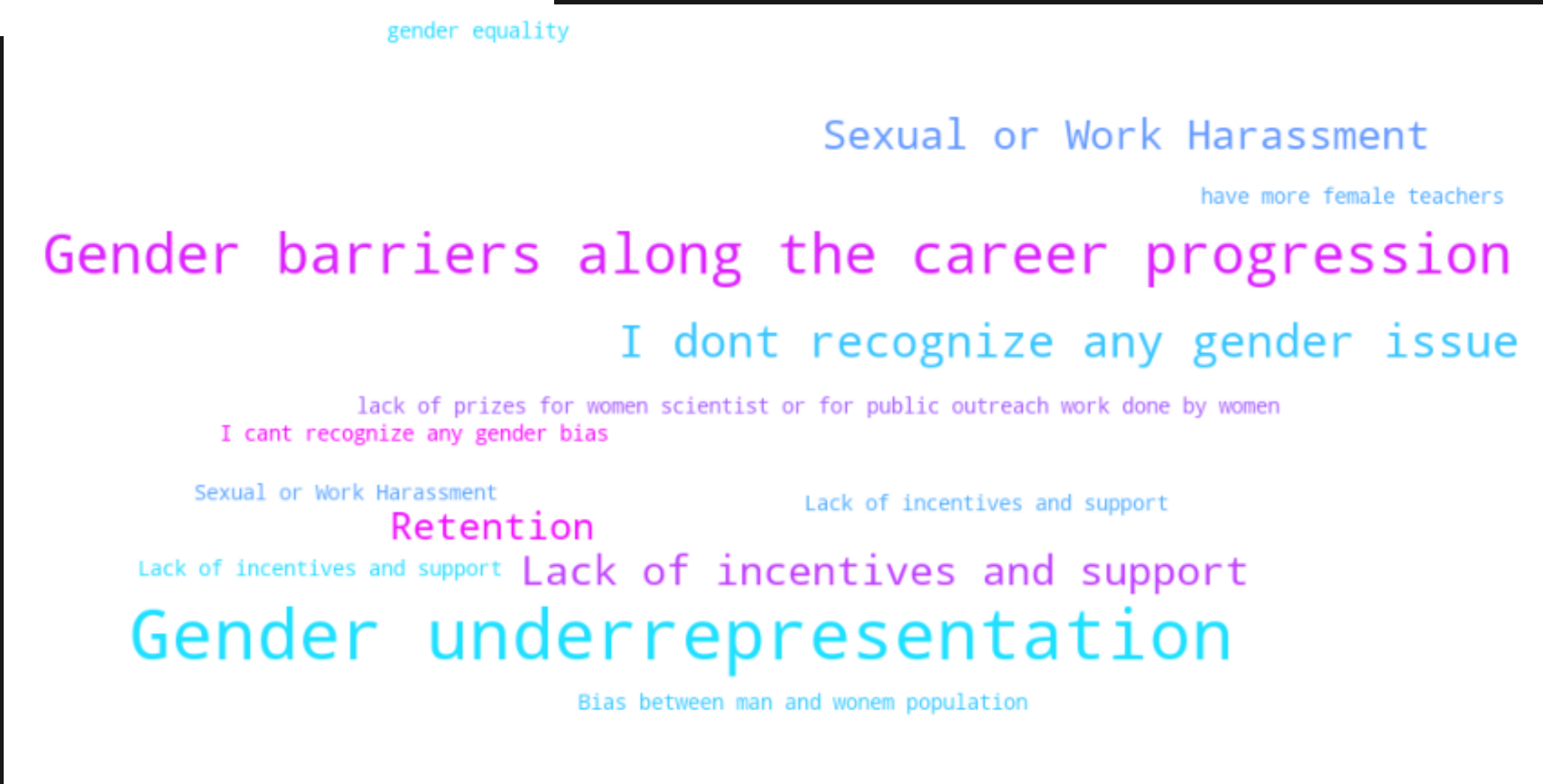
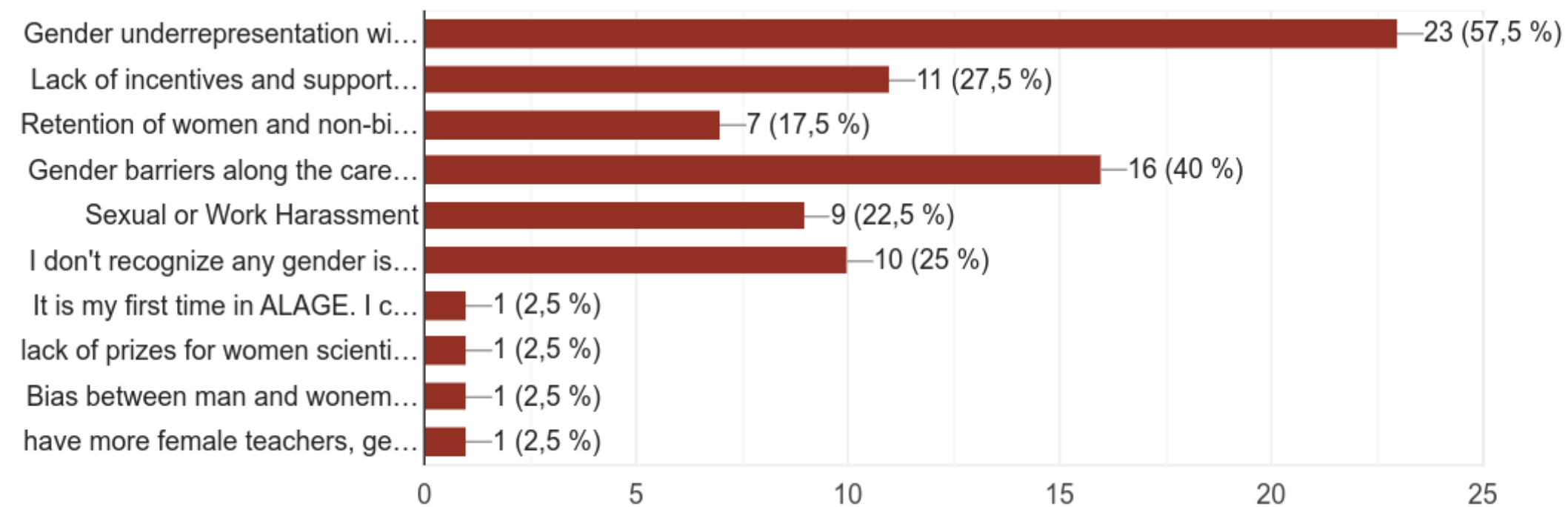
40 respuestas



What are the most visible gender issues in the ALAGE community (or COLAGE conferences) recognized by you?



40 respuestas



SOME IDEAS FROM OUR COMMUNITY

- I would be interested in getting more information on what is the diversity of incoming students. Moreover, how the representation statistics evolve through the different career stages.
- (1) We shall conduct such kind of discussion at every COLAGE. (2) We shall prepare the new generation to discuss and assume leadership. (3) We shall actively search for gender equality in the ALAGE position (board and national representatives).
- Prizes, special grants for women, special sessions to address the patriarchy issue present in evaluations and organization of conferences, for instance.
- Promote more women participation in careers related to space
- I think that when possible, blind decisions about gender can be one of a good starting point. And to try to induce certain equilibrium on statistical numbers (I have not clear how, sorry, it needs to be deeper analyzed, but an open discussion is necessary).
- It is important to encourage students to learn about female scientist examples that can serve as role models and inspiration. It is also necessary to work in a Latin network with men and women collaborating together with the purpose of observing any bias (implicit or explicit) along all the scientific career of female colleagues, giving a space to discuss and that look after them.
- The science financial support agencies could have special programs for supporting woman project, like the ones on earlier career or woman who has child. In this way they can evaluate and select proper each proposals.
- I think we should visualize our scientific minorities as a proxy of representation to the young students and young scientists.
- Impose top-down protective policies (during conferences and related to awards); promote conversations regarding gender equity; highlight COLAGE women's work; list best practices and lessons learned from different countries; quantify gender inequalities and barriers in our community.
- Giving more recognition and place to women in science. Motivating equality and respect for women in area 1. Having policies of gender equity and attention to abuse or harassment by any person.
- Allowing greater prominence and recognition for works made without distinction of gender. Ensuring equal opportunities and actively acting on equity in academic life with subsidies and/or support in people's day-to-day challenges: supporting/considering parenthood situations, combating harassment and discrimination, ensuring representativeness in all fields, granting emotional support in groups and/or social activities and opening the debate for social improvements and awareness of those who are averse or insensitive to this important topic.
- Support women in science and programs for girls in STEM in elementary/high school.
- Yes, we should. Other Scientific associations have dedicated programs to foster women and LGBT+ careers in STEM
- I firmly believe that different backgrounds and experiences increase the competition in work teams and consequently increase efficiency and innovation. Addressing the challenge to improve the representation of gender in the space weather community and society in different science fields will also have a global influence.

THANK YOU!