



Latinamerican Association of Space Geophysics

Asociación Latinoamericana de Geofísica Espacial

Associação Latino-americana de Geofísica Espacial

BOLETÍN
ABRIL-MAYO 2024



por Romel de la Garza

*Ciencia hay una sola
y comunidad científica una sola.
Juan G. Roederer (Cuba 1993)*



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ANNEX I. REPORT FROM THE PRESIDENT

1. XIV COLAGE (Fourteenth Latin American Conference on Space Geophysics)

1.1 XIV COLAGE REPORT

From 8 to 12 April 2024, the XIV Latin American Conference on Space Geophysics (COLAGE) took place in Monterrey, Nuevo León, México. This traditional conference, which has the objective of assembling students and researchers from Latin America, had 160 participants from 18 countries, including attendants from the Argentina, Belgium, Brazil, Bulgaria, Chile, Colombia, Costa Rica, Cuba, Ecuador, Ethiopia, France, Honduras, India, Italy, Mexico, Mozambique, Peru, and USA, 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.

The poster for the XIV COLAGE 2024 conference is titled "Conferencia Latinoamericana de Geofísica Espacial". It provides the following information:

- Event Details:** XIV COLAGE 2024, Total Solar Eclipse Monterrey Mexico, 8-13 April 2024. Website: www.rice.unam.mx/colage2024
- Focus Areas:** 1. Space weather, 2. The Ionosphere and Upper Atmosphere, 3. Solar Physics, Heliosphere, Cosmic Rays, 4. Solar Wind, Magnetosphere, 5. Space Plasma Physics and Nonlinear Processes in Space Geophysics.
- Important Deadlines:** Total Solar Eclipse: Monday, 8 April 2024; Web page open for abstract submission: 25 September 2023; Deadline for abstract submission: 31 January 2024; Web page open for pre-registration: 20 June 2023; Web page open for early registration: 10 November 2023; Web page open for standard registration: 1 January 2024; Web page open for applications for travel support: 10 November 2023; Deadline for application for travel support: 15 January 2024.
- Contact:** colage2024@geofisica.unam.mx, www.rice.unam.mx/colage2024

Logos for UANL, LANCE, GEOFISICA, FCFM, and COLAGE are displayed at the bottom.

This time, the conference had a special ice break on 8 April, where many attendees enjoyed the Total Solar Eclipse in Mexico. This event has a duration of ~4 hours in the totality region that cross by the states of Coahuila, Durango and Sinaloa. It was a fascinating event!!



Figure 1: Photos during the Eclipse, 8 April 2024

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:

Local Organizational Committee:


Americo Gonzalez Esparza, LANCE-UNAM
Eduardo Pérez Tijerina, LANCE-UANL
Elsa Sánchez García, LANCE-UNAM
Esmeralda Romero Hernández, LANCE-UANL
Pedro Corona Romero, LANCE-UNAM
Andrés Avilés Alvarado, LANCE-UANL
Madelaine Martínez, LANCE-UNAM
Sandra Ayala Gómez, LANCE-UANL
Víctor J. Gatica Acevedo, LANCE-UNAM
Flor Araceli García Castillo, LANCE-UANL
J. Enrique Pérez León, LANCE-UANL

Scientific Organizational Committee:

Americo Gonzalez Esparza, LANCE-UNAM, President
Clezio Marcos De Nardin, INPE-Brazil
María Graciela Molina, UNT-Argentina
Yaireska Collado-Vega, NASA-USA
Maria Sergeeva, LANCE-UNAM-Mexico
Láysa Cristina Araujo Resende, INPE & CBJLSW, Brazil
Danny Scipión Castillo, ROJ-Peru
Ana Georgina Elías, UNT-Argentina
Hebe Cremades, UM & CONICET-Argentina
José Valdés Galicia, LANCE-UNAM-Mexico
Ernesto Aguilar-Rodríguez, LANCE-UNAM-Mexico
Ramón López, UTA-USA
Maria Stepanova, USACH-Chile
Sergio Dasso, UBA-Argentina

Ligia Alves da Silva, INPE-Brazil
Juan A. Valdivia, UCHILE-Chile
Pablo Ariel Dmitruk, UBA-Argentina
Abraham Chian, Peru

Invited Talks:

- [International cooperations related to Operative Space Weather: yesterday, today, and tomorrow.](#) Dr. Sergio Dasso, CONICET/UBA, IAFE, LAMP & UBA, FCEN, DCAO, LAMP center, Buenos Aires, Argentina.
- [What is the impact of solar wind Alfvénic turbulence on the magnetospheric dynamics? Observations by Solar Orbiter and Wind.](#) Dr. Raffaella D'Amicis, INAF – IAPS, Italy.
- [Estimation of F-region plasma parameters using perpendicular-to-B spectral measurements with AMISR14 at Jicamarca.](#) Dr. Marco Milla, Pontificia Universidad Católica del Perú, Peru.
- [Storm-time effects over the ionosphere-thermosphere system across South-America.](#) Dr. Luis Navarro, University of Colorado at Boulder, USA.
- [Exploring Solar Energetic Particles and Galactic Cosmic Rays: Insights from Space and Ground-Based Observations.](#) Dra. Veronica Bindi, The University of Hawaii at Manoa, USA.
- [Using Global MHD Simulations to infer the structure of the corona during Parker Solar Probe's 19th Encounter and the Total Solar Eclipse of April 8, 2024.](#) Dr. Pete Riley, Predictive Science Inc, USA.
- [Unraveling Unexpected Solar Wind-Magnetosphere-Ionosphere Coupling: A Case Study of Extreme.](#) Dr. Bea Gallardo-Lacourt from GSFC/NASA, USA. 
- [Causes of extreme geomagnetic activity.](#) Dr. Walter Gonzalez, INPE, Brazil.
- [Vortices and their contribution to the energy transport in the solar atmosphere.](#) Dr. Viktor Fedun, The University of Sheffiel, UK.
- [Dynamics of magnetic energy and magnetic helicity in solar active regions: recent numerical and observational results.](#) Dr. Etienne Pariat, Plasmas Physics Laboratory, France.

- Role of coherent structures in resistive drift-wave turbulence in plasmas. Dr. Rodrigo Miranda, University of Brasilia, Brazil.
- Intermittent turbulence in the Martian magnetosphere. Dr. Adriane Franco, UNIFESSPA, Brazil.
- The Earth's magnetosphere as a turbulent wake. Dr. Marina Stepanova, Departamento de Física, Universidad de Santiago de Chile, Chile.
- Kinetic regulation of plasma turbulence and thermally induced electromagnetic fluctuations in different plasma environments. Dr. Juan Alejandro Valdivia, Universidad de Chile, Chile.

There were 160 participants, including 65 oral presentations and 75 posters, divided into five sessions: Ionosphere, Solar Physics, Space Weather, Solar Wind and Space Plasma (see ANNEX I).



Figure 2: Official Photo, COLAGE 2024



Figure 3. Poster Sessions, COLAGE 2024.

Another significant highlight of COLAGE was the presentation of the Roberto Manzano Prize, an award that recognizes the best student contributions. This award, a testament to the importance of student research, was given out for each of the COLAGE sessions. The student awardees for each session were:

Session 1: SPACE WEATHER

Yamila Melendi (UNS, Argentina)

“Ionospheric response to a moderate storm in South America analysis using a multi-instrumental approach”

Session 2: IONOSPHERE AND UPPER ATMOSPHERE

Roberto Arturo Flores Arroyo (IGP, Peru)

“Equatorial E-region neutral wind estimation using spectral parameters from oblique Equatorial Electrojet echoes fitted to a double skewed Gaussian model”

Session 3: SOLAR PHYSICS, HELIOSPHERE, COSMIC RAYS

Jania Newton Bosch (IGF, Mexico)

“Atmospheric pressure and temperature effects on cosmic rays detected by the Solar Neutron Telescope at Sierra Negra”

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

Vitória Marques da Silva (UFABC, Brazil)

“Perseverance Rover Mars Landing Reliability”

1.2 XI ASSEMBLY REPORT

Date: 10 April 2024, Monterrey, NL, Mexico.

CD (Committee of Delegates): Dr. Americo Gonzalez Esparza (president), Dr. M. Graciela Molina (vice-president), Dr. Bea Gallardo-Lacour (International Secretary), Dr. Carolina Salas Matamoros (Information Secretary) and Dr. Dr. Alisson Dal Lago (Treasurer).

1. The first point of the meeting began with the presentation of the CD's report by the president (see ANNEX I).
2. The directive board presented their informs: Vice-president, Treasurer, International Secretary and Information Secretary.
3. As Dr. De Nardin proposed in the last assembly, the statutes were reviewed. Dr Valdez presented the items discussed by the statue committee prior to the assembly. During the assembly each point was presented and voted by the members.
4. The new board members were elected. Dr. María Graciela Molina is the new President of ALAGE, assuming a leadership role within the organization. Dr. Pedro Corona proposed Dr. Danny Scipion as the new vice president. He was approved by unanimity. Dr. Esmeralda Romero Hernandez was nominated for the position of Information Secretary, which was approved. Similarly, Dr. Bea Gallardo-Lacourt was proposed for the position of International Secretary and secured approval from the majority. Lastly, Dr. Alisson Dal Lago will remain as the organization's Treasurer.
5. Costa Rica and Peru were the proposals for the COLAGE venue. The decision was difficult but at the end Peru was the winner with only one vote of difference. So the XV COLAGE will be in Peru!



Figure 4. New ALAGE board.

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

Argentina: Cesar Bertucci

Bolivia: Ronald Winkelmann

Brazil: Juliano Moro

Chile: Manuel Bravo

Costa Rica: Heidy Gutierrez

Ecuador: Pamela Carolina Pesante Cabrera

Mexico: Maria Sergeeva

Perú: Marco Milla

Puerto Rico: Petrina Santos

Uruguay: Ramón Caraballo

USA: Yaireska Collado- Vega

1.3. COLAGE PROCEEDINGS

The proceedings of the COLAGE XIV will be published by Geofísica Internacional (<http://revistagi.geofisica.unam.mx/index.php/RGI>). More details about the deadline for this special issue will be announced soon.

1.4. CONCLUSION

As a conclusion, the XIV 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 2024 was a remarkable platform for the exchange of ideas and the presentation of cutting-edge research. The 160 participants, including 65 oral presentations and 75 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.

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 2024 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 2026, 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

The International Space Science School (ISSS) took place from April 13 to 14, 2024, at the same venue as the XIV **COLAGE**. The aim of the school is promoting knowledge and training for undergraduate, master's and doctoral candidates, from all over the world, in the area of Space Sciences, covering topics such as the Sun and Solar Activity, Interplanetary Medium and the Solar Wind, Magnetosphere, Ionosphere, High Atmosphere, Planetary Sciences, and Space Weather. 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 2024 it was at its 14th edition. This means that the COLAGE associated schools are also a relatively long-lasting tradition.

2.1 LOCAL ORGANIZATIONAL COMMITTEE:

Luis Xavier González, UNAM

Julio Mejía Ambríz, UNAM

Esmeralda Romero Hernández, UANL



Figure 5. Attendance at the International Space Science School, FCFM-UANL, Monterrey, Mexico.

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 was planned to last for two whole days. Each day was divided in three sections to review general aspects of the main subjects. The review was given by an expert on the field.

2.3. THE LECTURES OF THE SCHOOL

- France: **Etienne Pariat** (Sorbona University)
- USA: **Olusegun Jonah** (SRI International)
- Mexico: **José Juan González** (ENES-UNAM); **José Valdés Galicia** (IGF-UNAM)

Also, the school had two contribution talks:

- The beginning of the space era for mankind, **Maria Sergeeva**
- Jicamarca Observatory, **Marco Milla**.

2.4. DISTRIBUTION OF ATTENDEES

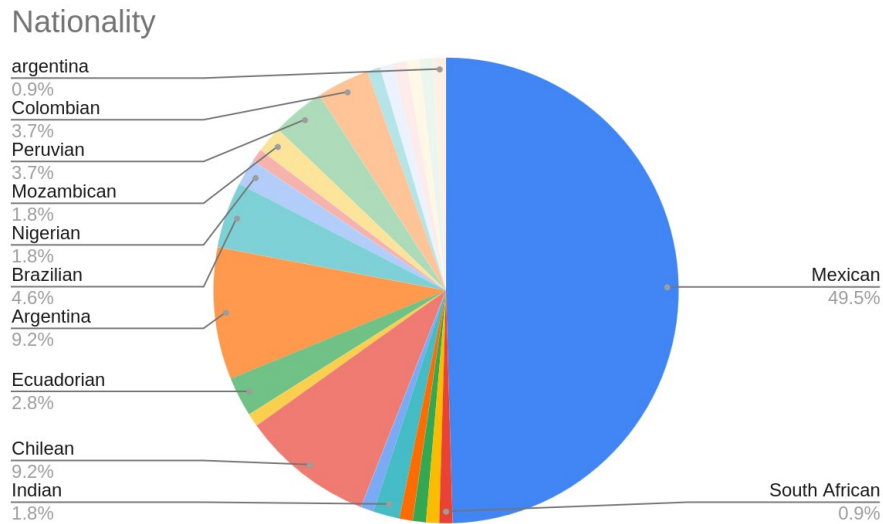


Figure 6. Distribution of attendees by nationality.

What is your academic degree or the degree you are pursuing? Specify if you are close to obtain the degree.

110 respuestas

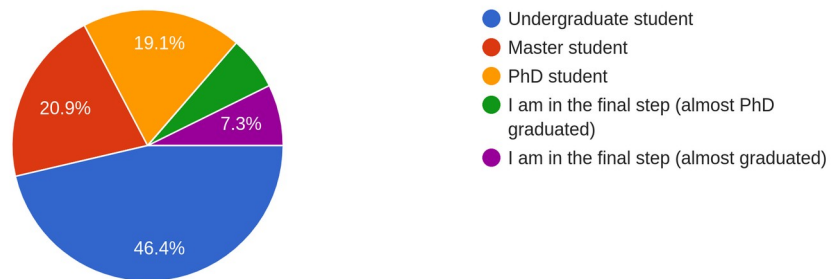


Figure 7. Distribution of attendees by affiliation.

3. 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

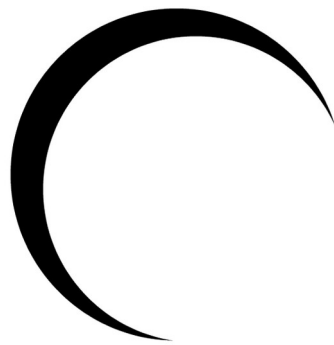
Facebook page: @alage.official

Twitter: @ALAGE_official

4. ACKNOWLEDGMENTS

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

ANNEX I. REPORT FROM THE PRESIDENT



XIV COLAGE 2024

Total Solar Eclipse Monterrey Mexico



Rommel De la Garza, UANL



APOYOS DE ORGANISMOS INTERNACIONALES



ORGANISMO	APOYO OTORGADO	TOTAL APROX EN MXN
ICTP	3,000 EUROS	\$ 56,451.24
SCOSTEP	3,500 DÓLARES	\$ 60,130.00
COSPAR	1,500 EUROS	\$ 27,126.62
ONR	25,000 DÓLARES	\$ 405,500.00
CLAF	1,500 DÓLARES	\$ 25,500.00
	TOTAL MXN APROX	\$ 574,707.86

APOYOS DE ORGANISMOS NACIONALES



ORGANISMO	APOYO OTORGADO
SDI – SECRETARÍA DE DESARROLLO INSTITUCIONAL UNAM	\$ 200,000.00
CIC – COORDINACIÓN DE LA INVESTIGACIÓN CIENTÍFICA UNAM	\$ 150,000.00
ENES – ESCUELA NACIONAL DE ESTUDIOS SUPERIORES, UNIDAD MORELIA, UNAM	\$ 51,000.00
SECRETARÍA DE TURISMO DE NUEVO LEÓN	\$ 100,000.00
FACULTAD DE CIENCIAS FÍSICO MATEMÁTICAS	\$ 150,000.00
RECTORIA DE LA UANL	\$ 100,000.00
TOTAL	\$ 751,000.00

INVESTIGADORES EXTRANJEROS APOYADOS

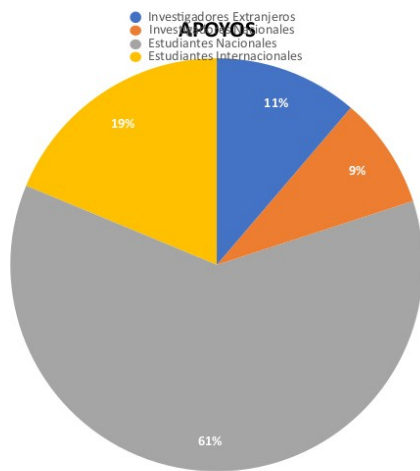
INVESTIGADORES			
País	Participantes confirmados	Femenino	Masculino
Argentina	3	2	1
Brazil	2		2
Peru	3		3
Costa Rica	1	1	
Total	9	3	6

ESTUDIANTES EXTRANJEROS APOYADOS

ESTUDIANTES EXTRANJEROS			
País	Participantes confirmados	Femenino	Masculino
Argentina	2	2	
Chile	3	2	1
Brazil	4	3	1
Peru	2	1	1
Colombia	2		2
Honduras	1		1
Belgica	1		1
Total	15	8	7

ESTUDIANTES NACIONALES APOYADOS

ESTUDIANTES NACIONALES			
Institución	Participantes confirmados	Femenino	Masculino
ENES MORELIA - ESCUELA NACIONAL DE ESTUDIOS SUPERIORES UNAM	7	2	5
PCT - POSGRADO EN CIENCIAS DE LA TIERRA UNAM	8	4	4
ENCIT - ESCUELA NACIONAL DE CIENCIAS DE LA TIERRA UNAM	8	3	5
FACULTAD DE CIENCIAS UNAM	4	1	3
ESIA - ESCUELA SUPERIOR DE INGENIERIA Y ARQUITECTURA, IPN	2	0	2
UACH - UNIVERSIDAD AUTONOMA DE CHIAPAS	2	1	1
UANL - UNIVERSIDAD AUTONOMA DE NUEVO LEON	1	1	0
OTRAS INSTITUCIONES	2	0	2
Total	34	12	22



TIPOS DE APOYO

- Transportación Aérea y Terrestre
- Hospedaje
- Alimentos

Local Organizing Committee

Home → Local Organizing Committee



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Scientific Organizing Committee (SOC)

The LOC have invited a list of distinguished scientists to assist with the definition of the scientific fields for the XIV COLAGE, which includes but are not limited to: Space weather; Ionosphere and Upper Atmosphere; Solar Physics, Heliosphere, Cosmic Rays; Solar Wind, Magnetosphere and Geomagnetism; Space Plasma Physics and Nonlinear processes in Space Geophysics.

The names, affiliation and e-mail addresses are listed below.



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3. Solar Physics, Heliosphere, Cosmic Rays



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4. Solar Wind, Magnetosphere and Geomagnetism



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