



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

**BOLETÍN Nº 38  
AÑO 22  
Mayo 2015**

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

*Juan G. Roederer (Cuba 1993)*



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

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## Índice

<b>1. Décima Conferencia Latino Americana de Geofísica Espacial (X COLAGE)</b>	<b>4</b>
<b>1.1 Relatoría da la X COLAGE</b>	<b>5</b>
<b>1.2 Premio Roberto Manzano durante la X COLAGE</b>	<b>9</b>
<b>2. Decima Asamblea Latino Americana de Geofísica Espacial (ALAGE)</b>	<b>9</b>
<b>2.1 Acta de la Decima ALAGE</b>	<b>9</b>
<b>2.2 ANNEX 1. List of Participants of General Assembly of the ALAGE, September 11, 2014, Cusco, Perú</b>	<b>12</b>
<b>2.3 ANNEX 2. Report of the Information Secretary, Dr. Paulo Prado Batista</b>	<b>14</b>
<b>2.4 ANNEX 3. Report of the ALAGE President Dra. Blanca Mendoza</b>	<b>14</b>
<b>2.5 ANNEX 4. Report of the Tresurer, Dr. Juan Américo González</b>	<b>14</b>
<b>3. ALAGE es un miembro de cooperación de COSPAR</b>	<b>16</b>
<b>4. Noticias de Interés General</b>	<b>18</b>
<b>4.1 Próximas reuniones científicas</b>	<b>20</b>
<b>5. Agradecimientos</b>	<b>30</b>

## **2. Décima Conferencia Latino Americana de Geofísica Espacial (X COLAGE)**

La Asociación Latino Americana de Geofísica Espacial (ALAGE) organiza aproximadamente cada 3 o 4 años la conferencia Latino Americana de Geofísica Espacial (COLAGE). Esta conferencia reúne a mas de cien científicos y estudiantes principalmente de países de Latino América interesados en las siguientes áreas de investigación.

- El Sol y las interacciones sol-tierra
- La heliosfera y los rayos cósmicos
- La magnetósfera
- La iononósfera y alta atmósfera
- El clima y tiempo espacial
- Física de plasmas de planetas y exo-planetes
- Procesos no lineales en Geofísica espacial

La COLAGE promueve el intercambio académico y la colaboración científica entre investigadores y estudiantes latinoamericanos, cuya mayor parte participa a todas las COLAGE. Además, impulsa el desarrollo y la colaboración científica en la Geofísica Espacial entre la comunidad científica latinoamericana e internacional, presenta un panorama actualizado de esta ciencia, promueve el intercambio de ideas, difusión de sus resultados de investigación y brinda especialmente a los estudiantes de posgrado una oportunidad de participar e interactuar con otros colegas latinoamericanos e internacionales.

La X COLAGE se celebró en Cusco, Perú, 08-12 de Setiembre, 2014 ([http://jro.igp.gob.pe/x\\_colage/](http://jro.igp.gob.pe/x_colage/)).

Adicionalmente, esta conferencia fue acompañada por la realización de una Escuela Internacional en Ciencias Espaciales (ISSS – International School on Space Science) que fue también auspiciada por SCOSTEP (Scientific Committee on Solar-Terrestrial Physics) y por ISWI (International Space Weather Initiative). La escuela cubrió tópicos que van desde el interior del sol al impacto de la variabilidad del sol en el entorno Tierra-Espacio incluyendo los efectos en la magnetósfera, ionósfera y capas altas de la atmósfera. Clima y tiempo espacial también fueron tópicos de la escuela. La ISSS se realizó en las instalaciones del Instituto Geofísico del Perú en la ciudad de Lima, Perú.



## 2.1 Relatoría da la X COLAGE

Dr. Marco A. Milla, Coordinador del Comité Local de X COLAGE

### *Participación en X COLAGE y ISSS*

La X COLAGE contó con la asistencia de 142 participantes de 20 países del mundo, principalmente de Latino América, dentro de los cuales 53 fueron estudiantes de post-grado de diferentes universidades. El listado de países que participaron y su asistencia es el siguiente.

País	Participantes
Argentina	17
Bélgica	1
Brasil	41
Chile	8
Colombia	4
Costa Rica	2
Cuba	3
Ecuador	1
Francia	1
Alemania	2
México	22
Noruega	1
Perú	18
Puerto Rico	1
Rusia	2
España	1
Suecia	1
Inglaterra	1
Uruguay	1
USA	14
<b>Total</b>	<b>142</b>

Adicionalmente, la escuela contó con la asistencia de 42 estudiantes de diferentes países. En su mayoría fueron estudiantes que también asistieron a la COLAGE. La distribución de asistentes a la escuela fue la siguiente.

País	Participantes
Argentina	3
Brasil	15
Chile	2
Colombia	3
México	3
Perú	13
España	1
Uruguay	1
USA	1
<b>Total</b>	<b>42</b>

## **Organización y Programa Científico**

La X COLAGE fue organizada por un comité internacional compuesto de los de organización internacional el cual esta compuesto por los siguientes investigadores.

- Dr. Blanca Mendoza – President of ALAGE (UNAM, Mexico)
- Dr. Adolfo Viñas – International Secretary of ALAGE (NASA, USA)
- Dr. Abraham Chian (INPE, Brazil)
- Dr. José Valdés-Galicia (UNAM, Mexico)
- Dr. Walter Gonzalez (INPE, Brazil)
- Dr. Sergio Dasso (IAFE, UBA-CONICET, Argentina)
- Dr. Marco Milla (IGP, Peru).

En la X COLAGE, se realizaron 77 presentaciones orales de las cuales 25 fueron invitadas y 52 contribuciones de trabajos de investigación recientes. Además se expusieron 100 posters científicos en una sesión especial destinada a este fin. Las presentaciones orales y los pósters fueron agrupadas en 7 sesiones científicas las cuales listamos a continuación.

- Session 1. The Sun and solar-terrestrial interactions
- Session 2. The Heliosphere and Cosmic Rays
- Session 3. The Magnetosphere
- Session 4. The Ionosphere and upper Atmosphere
- Session 5. Space Weather and Space Climate
- Session 6. Plasma Physics of Solar System Planets and Exoplanets
- Session 7. Nonlinear Processes in Space Geophysics

En el caso de la ISSS, la organización de ella estuvo a cargo de 3 directores.

- Dr. Nat Gopalswamy (NASA, USA)
- Dr. Marco Milla (IGP, Peru)
- Dr. Abraham Chian (INPE, Brazil)

En la escuela tuvimos en total 20 profesores que vinieron de diferentes instituciones internacionales, además se dieron un total de 22 tutoriales científicos y 3 charlas sobre instrumentación. Cada tutorial además contó con una sesión práctica en la cual se desarrollaron ejercicios relacionados con el tema que permitieron reforzar los conceptos estudiados durante el tutorial.

Información detallada sobre las sesiones y participantes del evento se puede encontrar en el los anexos a este informe. Información adicional como anuncios, actividades realizadas, fotografías y otros se pueden descargar desde la página web del evento [http://jro.igp.gob.pe/x\\_colage](http://jro.igp.gob.pe/x_colage).



**Figura 1. Fotografía de los participantes de X COLAGE.**



**Figura 2. Fotografía de los participantes de ISSS.**

## **Financiamiento y Auspiciadores**

La X COLAGE y la ISSS fueron auspiciados por las siguientes instituciones y organizaciones.

- Asociación Latino Americana de Geofísica Espacial (**ALAGE**)
- Instituto Geofísico del Perú (**IGP**)
- US National Science Foundation (**NSF**)
- Scientific Committee On Solar-Terrestrial Physics (**SCOSTEP**)
- International Space Weather Initiative (**ISWI**)
- Ciencia Internacional (**CI**)
- Consejo Nacional de Ciencia Y Tecnología del Perú (**CONCYTEC**)
- IEEE Geoscience and Remote Sensing Society (**GRSS**)

Los fondos recibidos por estas instituciones se destinaron a financiar la participación de estudiantes e investigadores jóvenes de países latinoamericanos. En el caso de la X COLAGE, se financió la participación de 96 participantes, 90 recibieron exoneración del pago de inscripción, 40 apoyo en gastos de pasajes, 70 alojamiento y 2 apoyo en alimentación. En el caso de la escuela, todos los participantes internacionales recibieron exoneración del pago de inscripción, además de recibir alojamiento y alimentación.

## **Conclusiones**

La X COLAGE fue una oportunidad excelente para que investigadores de diferentes partes del mundo compartan sus trabajos de investigación más recientes en el campo de la Geofísica Espacial. De esta forma se promueve el desarrollo de nuevos proyectos y se generan oportunidades para que estudiantes puedan continuar sus estudios en centros de renombre mundial. Durante la conferencia se destacó la importancia de los estudios realizados por el Radio Observatorio de Jicamarca relacionados con las diferentes irregularidades de la ionósfera ecuatorial.

Por otro lado, la ISSS ha permitido formar una nueva generación de estudiantes que trabajaran en temas de investigación relacionados con Ciencias Espaciales. En particular en el caso de los estudiantes peruanos, esta experiencia los ha motivado a continuar trabajando en estas áreas de la ciencia, lo que va a permitir que centros como el Radio Observatorio de Jicamarca y CONIDA puedan contar con jóvenes estudiantes interesados en unirse a estas instituciones.

Los resultados del evento serán publicados en una edición especial "Space and Geophysical Research Related to Latin America" de la revista científica *Advances in Space Research* (ASR). La fecha límite para la entrega de los trabajos a ser publicados es 1 de Junio 2015.

Durante el evento se eligió a la Argentina como la próxima sede de la conferencia COLAGE. Esta futura conferencia se realizará entre los años 2017 y 2018.

## 2.2 Premio Roberto Manzano durante la X COLAGE

The Secretary of the Prize Committee, Dr. Lela Taliashvili presented the winners of the Ruth Gall and Roberto Manzano prizes.

The Ruth Gall Prize was awarded to Professor Juan Roederer.

The Roberto Manzano Prize was awarded to Tardeli Rohan Coehlo Stekel, Alberto Fares Akel and Sergio Vidal.

Two honorific mentions were also awarded to: Ernesto Ortíz and Esmeralda Romero.

## 3. Decima Asamblea Latino Americana de Geofísica Espacial (ALAGE)

### 3.1 Acta de la Decima ALAGE

A General Assembly of ALAGE took place on September 11, 2014 during the X COLAGE at Cusco, Perú. The Assembly started at 16:00 hours. The number of persons present in the Assembly was 65 according to the list presented in Annex 1. The President of ALAGE Dr. Blanca Mendoza, the Vice President Dr. Marcos Machado, the International Secretary Dr. Adolfo Viñas, the Information Secretary Dr. Paulo Prado Batista, and the Treasurer Dr. Juan Américo González Esparza assumed the dais and conducted the Assembly.

Dr. Blanca Mendoza (President of ALAGE) opened the Assembly session with opening address and presented the agenda for the session:

- 1 Reading of the minutes of the previous Assembly
- 2 Report of the ALAGE Information Secretary , Treasurer and President
- 3 Election of the new Directing Board
- 4 Presentation of the National Representatives
- 5 Selection of the XI COLAGE venue
- 6 Presentation of the winners of the Ruth Gall and Roberto Manzano prizes
- 7 Election of members of the Prize Committees
- 8 Nomination of the Program Committee for XI COLAGE
- 9 Report of the President of the Local Organizing Committee
- 10 General topics:
  - Mario Acuña Prize
  - Integration to ALAGE of colleagues from Spain and Portugal, and the Spanish Space community in USA.
  - Submission of the X COLAGE papers to a topical issue of Advances in Space Research
- 11 Address of the new Directive Board
12. End of the Session

The minutes of last ALAGE General Assembly held at Punta Leona, Costa Rica during the IX COLAGE was read by Dr. Paulo Batista Information Secretary of ALAGE. These minutes were published in the ALAGE Bulletin number 34 of May 2011. The minutes were approved by unanimity in the Assembly.

Dr. Paulo Prado Batista (Information Secretary of ALAGE) presented the report of his activities (**Annex 2**).

Dr. Juan Américo González Esparza (Treasurer of ALAGE) presented the accounts that were

approved by unanimity in the Assembly (**Annex 3**).

Dr. Blanca Mendoza delivered the presidential address (**Annex 4**) where she reported on the ALAGE activities since the last meeting at Punta Leona, Costa Rica in 2011. She also remembered that in 2013 we proudly commemorated the 25<sup>th</sup> Anniversary of the COLAGE meetings and the 20<sup>th</sup> Anniversary of the creation of ALAGE.

She extended the sincere thanks to the Local Organizing, Dr. Marco Milla and his collaborators, and to the Scientific Committees of the Meeting and others who participated in the meeting.

This was followed by the elections for the new directing board of ALAGE. Following the rules and regulations Dr. Marcos Machado (present Vice-President) assumed the position of President of ALAGE. The Assembly then elected the following members by unanimity:

Dr. Alejandro Valdivia - Vice-President  
Dr. Lela Taliashvili - Information Secretary  
Dr. Abraham Chian - International Secretary  
Dr. Sergio Dasso - Treasurer

The Assembly then by unanimity confirmed the following National Representatives indicated by the participants of each country:

Argentina:	Dr. Hebe Cremades
Bolivia:	Dr. René Torres (continuation – no participants)
Brazil:	Dr. Igo Paulino
Colombia:	Dr. Hernán Asorey
Costa Rica:	Dr. Francisco Frutos
Cuba:	Dr. Adolfo Méndez Berhondo
Chile:	Dr. Marina Stepanova
Ecuador:	Dr. Denis Cazar
México:	Dr. Román Pérez
Peru:	Dr. Marco Milla
Uruguay	Lic. Ramón Caraballo
Venezuela:	Dr. Alexander Carrasco (continuation-no participant)

The Assembly then started discussions on the selection of location for the next COLAGE. The sole candidate for the next COLAGE was Argentina.

Dr. Daniel Gómez then presented the candidature of Argentina. He mentioned that the location for the next COLAGE in Argentina could be Buenos Aires and the period could be in 2017.

Thus the Assembly elected Argentina as the location for the XI COLAGE meeting.

The Secretary of the Prize Committee, Dr. Lela Taliashvili presented the winners of the Ruth Gall and Roberto Manzano prizes. The Ruth Gall Prize was awarded to Professor Juan Roederer. The Roberto Manzano Prize was awarded to Tardeli Rohan Coehlo Stekel, Alberto Fares Akel and Sergio Vidal. Two honorific mentions were also awarded to: Ernesto Ortíz and Esmeralda Romero.

The Assembly then started discussions on the election of members of the Prize Committees for the Roberto Manzano and Ruth Gall prizes. As per the ALAGE bylaws, Dr. Marcos Machado (President – ALAGE) and Dr. Blanca Mendoza (Former President – ALAGE) are also members of the Prize Committees. Three other members were elected by unanimity by the assembly:



Dr. Adolfo Méndez  
Dr. Reynaldo Rosa  
Dr. Marta Zossi.

The Assembly then started discussions on the nomination of the Program Committee for the next COLAGE meetings in Argentina. According to ALAGE bylaws Dr. Marcos Machado – President, and Dr. Abraham Chian - International Secretary are members of the Committee. The following members were also elected:

Dr. Hernán Asorey  
Dr. Alisson Dal Lago  
Dr. Daniel Gómez  
Dr. Juan Américo González  
Dr. Marco Milla

The Local Organizing Committee of XI COLAGE may include later other names to the above list later.

The Assembly then listened to the presentation of the brief report of the X COLAGE by the President of the Local Organizing Committee, Dr. Marco Milla (**pg. 4**).

Dr. Blanca Mendoza passed then to the general topics.

- Mario Acuña Prize: Dr. José Valdés presented the proposal and operation rules in Spanish and Portuguese, the English text is as follows:

The Mario H. Acuña Prize will be awarded to a distinguished scientist, employed by an education and/or research institution in Latin America, whose work has been outstanding to create scientific infrastructure for research in Space Science (terrestrial or on board of spacecrafts) in one or more countries of the region. Priority will be given to individuals who have contributed in particular to instrumental development and data analysis, and made an outstanding contribution to train young scientists in Space Science in Latin America.

The Awards Committee will receive nominations for candidates to the Mario H. Acuña Award, signed by at least three (3) active members of ALAGE during the period extending from the end of a COLAGE, up to 3 months before the subsequent. Proposals must be submitted to the Secretary of the Committee, accompanied by:

- A letter of acceptance of the candidate
- An updated Curriculum Vitae
- A letter explaining in detail the contributions of the candidate to the development of Space Sciences in Latin America and the benefits derived from them.

The Awards Committee may declare the Mario H. Acuña Prize, VOID, in case of none of the proposed candidates meet the requirements established above.

The Prize will consist of a medal, the nomination of Honorary Member of the ALAGE and the lifetime exemption from the registration fees of the awarded to all subsequent COLAGES.

The awardee will also be invited to present a Plenary Lecture during the COLAGE where he/she will receive the award.

The members of the acting Steering Board of ALAGE and the Past President of the organization cannot be nominated as candidates to the Mario H. Acuña prize.

- Integration to ALAGE of colleagues from Spain and Portugal and the Spanish Space community in USA: The assembly agreed that ALAGE must preserve its identity as a Latin American association. Concerning the Spanish Space Community in USA, It is advisable to sign a memorandum of Understanding. Concerning the request of colleagues from Spain and Portugal, they can become members of ALAGE. For the inclusion of new members the procedure is specified in Chapter II Art. 5, paragraph i) of the ALAGE Statute.

- Submission of papers Advances in Space Research (ASR) or Geofísica Internacional. Dr. Blanca Mendoza is currently working on this point with Dr. Peggy Shea, Editor of Special Topical Issues of ASR and Dr. José Valdés, Editor in Chief of Geofísica Internacional.

In sequence, in name of the new Directive Board, Dr. Marcos Machado presented his inaugural speech.

Finally the new Directive Board took over the dais and with this the future activities of ALAGE.

The General Assembly of the X COLAGE was closed at 18:05.

These minutes were prepared by Dr. Paulo Prado Batista, Information Secretary.

## **ANNEX 1**

### **LIST OF PARTICIPANTS GENERAL ASSEMBLY OF THE ALAGE, SEPTEMBER 11, 2014, CUSCO, PERÚ**

	<b>NAME</b>	<b>INSTITUTION</b>
1	Alberto Marcos Vásquez	Argentina , IAFE, UBA-CONICET
2	Daniel GómezArgentina	IAFE, UBA-CONICET
3	Gustavo Mansilla	Argentina , Universidad de Tucumán
4	María Graciela Molina	Argentina, Universidad de Tucumán
5	Patricia Larocca	Argentina , Universidad de Buenos Aires
6	Patricia Mónica Fernández	Argentina, Universidad de Tucumán
7	Teresita Heredia	Argentina, Universidad de Tucumán
8	Marta Zossi	Argentina, Universidad de Tucumán
9	Hebe Cremades	Argentina, UTN-FRM Y CONICET
10	Sergio Dasso	Argentina, IAFE, UBA-CONICET
11	Marcos Machado	Argentina ,CONAE
12	Julio César Gianibelli	Argentina, UNLP
13	Polinaya Muralikrishna	Brazil, INPE
14	Igo Paulino	Brazil, UFCG,
15	Ana Roberta Paulino	Brazil, UEPB,
16	Patrick Essieni	Brazil, UFCG
17	Quazim Adebayo Akinsande	Brazil, INPE
18	Ricardo Yuam de la Cruz Cueva	Brazil, CRAAM
19	Alberto Fares Akel Junior	Brazil CRAAM
20	Pablo Rubén Muñoz Gutberlet	Brazil, ITA
21	Erico Luiz Rempel	Brazil, ITA
22	Tardeli Rohan Coehlo Stekel	Brazil, INPE
23	Sony Su Chen	Brazil, INPE



24	Abraham Chian	Brazil, INPE
25	Livia Ribeir Alves	Brazil, INPE
26	Paulo Prado Batista	Brazil, INPE
27	Reinaldo Roberto Rosa	Brazil, INPE
28	Inez Staciardini Batista	Brazil, INPE
29	Clezio Marcos de Nardin	Brazil, INPE
30	Francisco Carlos Rocha Fernández	Brazil, UNIVAP
31	Cristian Andrés Sarmiento	Colombia, UIS
32	Hernán Asorey	Colombia, UIS
33	Lela Taliashvili	Costa Rica, CINESPA
34	Heidy Gutiérrez	Costa Rica, CINESPA
35	Adolfo Méndez Berhondo	Cuba, IGA
36	Samuel Vázquez Hernández	Cuba, IGA
37	Pablo Sierra Figueredo	Cuba, IGA
38	Juan Alejandro Valdivia	Chile, Universidad
39	Marlos Siat Quezada	Chile, Universidad
40	Marina Stepanova	Chile, Universidad
41	Sergio Vidal Luengo	Chile, Universidad de Concepción
42	Roberto E. Navarro	Chile, Universidad
43	Dennis Cazar Ramírez	Ecuador, USFQ
44	Lucia Villanueva	Madrid, Universidad
45	Dolores Maravilla Meza	México, UNAM
46	Luis Xavier González M.	México, UNAM
47	Marcos Barrantes Salazar	México, UNAM
48	Ernesto Andrade M.	México, UNAM
49	José Fco. Valdés Galicia	México, UNAM
50	Rebeca López Montes	México, UNAM
51	Héctor Enrique Ibarra Ortega	México, UNAM
52	Román Pérez Enríquez	México, UNAM
53	Armando Carrillo Vargas	México, UNAM
54	Pablo Villanueva Hernández	México, UNAM
55	Esmeralda Romero Hernández	México, UNAM
56	Juan Américo González Esparza	México, UNAM
57	Blanca Mendoza Ortega	México, UNAM
58	Walter R. Guevara Day	Perú, CONIDA
59	Javier Rengifo González	Perú, CONIDA
60	Verónica Loaiza Tacuri	Perú, CONIDA
61	Marco Milla	Perú, JICAMARCA
62	Ramón E. López	USA, Universidad de Texas
63	Cesar E. Valladares	USA, BC
64	Pablo S. Moya	USA, NASA
65	Adolfo Viñas	USA, NASA

## **ANNEX 2**

### **REPORT OF THE INFORMATION SECRETARY, DR. PAULO PRADO BATISTA**

From the period between the IX COLAGE to the X COLAGE we edited four issues of the Bulletin of ALAGE. The number 34 on May 2011, the number 35 on February 2012, the number 36 on August 2012, and the number 37 on November 2013.

We also worked for the ALAGE support to the 14th Workshop on Technical and Scientific Aspects of MST Radars that was held on May 2014 at São José dos Campos, SP, Brazil.

## **ANNEX 3**

### **REPORT OF THE TRESURER, DR. JUAN AMÉRICO GONZÁLEZ**

We received of Polinaya Muralikrishna in Punta Arenas, Costa Rica \$3,515.00 US dollars.

During the X COLAGE in Cusco, we obtained \$1,255.00 US dollars as membership fees.

Between the two COLAGEs we had the following expenses:

- 3 payments for the ALAGE URL domain (~\$37.0 US dollars each, total = \$111.0 US dollars)
- 1 payment for the hiring of a table and a chair for the ALAGE stand during the AGU joint meeting in Cancun (\$ 34.00 US dollars).

- 1 payment for the three books given to the winners of the Roberto Manzano Prize of the X COLAGE (\$30.00 US dollars)

Total of payments: \$175.00 US dollars.

The total amount given to Sergio Dasso, the new ALAGE Treasurer was: \$3,515.00 + \$1,255.00 - \$175.00 = \$4,595.00 US dollars .

## **ANNEX 4**

### **REPORT OF THE ALAGE PRESIDENT DR. BLANCA MENDOZA**

Dear colleagues, we proudly commemorated the 25th Anniversary of the COLAGE meetings and the 20th Anniversary of the creation of ALAGE in the year 2013.

The first Latin American Conference for Space Geophysics (COLAGE) took place in 1988 in Águas de Lindóia, Brazil organized by Dr. Jose Marques da Costa. After this first COLAGE eight others have been organized in México (1991), Cuba (1993), Argentina (1996), Costa Rica (1998), Chile (2001), Brazil (2004), México (2007), Costa Rica (2011) and now in Perú. It was in the third COLAGE in La Habana, Cuba when the ALAGE was created.

Our next president will be Dr. Marcos Machado, he will be presiding over the Association from his nomination, at the end of this Assembly, until the next COLAGE, whose date and location will be defined in the course of this Assembly.

We report on the ALAGE activities since the last meeting at Punta Leona, Costa Rica in 2011:

1. Publication of a Booklet commemorating the 25Th Anniversary of the COLAGE meetings. It can be downloaded from the ALAGE web site.
2. We signed a Memorandum of Understanding between ALAGE and AGU (American Geophysical Union), on the 14th of December, 2011.

3. We signed a Memorandum of Understanding between ALAGE and UGM (Unión Geofísica Mexicana), on the 9th of January, 2012.
4. We signed a Memorandum of Understanding between ALAGE and LATINMAG (Asociación Latinoamericana de Paleomagnetismo y Geomagnetismo), on the 23rd of April, 2012.
5. We are in the course of signing a Memorandum of Understanding between ALAGE and RAPEAS (Red Argentina Para el Estudio de la Atmósfera Superior).
6. We applied to the chairs of the Science and Technology councils of several Latin American countries for support to the ALAGE activities. Up to now, only the Comisión Nacional del Espacio (CONAE) of Argentina, with the help of Marcos Machado, answered. We hope that this effort will be pursued further.
7. A selection of papers presented in the IX COLAGE was published in Advances in Space Research. There were two special issues under the title Advances Theory and Observations of Solar System Dynamics I and II, Vols. 49 (11), 2012 and 51 (10), 2013. The Guest Editor was Dr. Vera Jatenco-Pereira to whom we thank for such hard and fruitful work.
8. Promotion of ALAGE during the AGU Joint Assembly-Meeting of the Americas, 14-17, May, 2013.
9. The ALAGE was present also in the meeting of participant societies that AGU organized the 13th of May, 2013.
10. Concerning the ALAGE web page we carried out five actions:
  - Changed the site to an UNAM server
  - Redesigned the site
  - Updated the members list and information that the National Representatives or individual ALAGE members sent
  - Created a personalized profile of the members. The 50% of them have now this profile.
  - Created an ALAGE facebook
11. We contacted Prof. A.M. Shea, Editor of Special Topical Issues of Advances in Space Research and Dr. José Valdés, Editor in Chief of Geofísica Internacional, for the possibility of an special issue.

In every COLAGE meeting the number of contributions augments, probing that these meetings are increasingly recognized. It is also encouraging to see the development of more ground observatories and large projects involving several Latin American countries. Moreover, there is more interchange of students and researchers. However we still have the task to promote further space research projects with the collaborative efforts of scientists and students from the region.

I wish to express my gratitude to:

The Local Organizing Committee of the X COLAGE, Dr. Marco Milla and his collaborators, for the exceptionally job they did organizing this event.

All the session chairs and co-chairs, Marco Milla and collaborators for their dedication and competency in the organization of the Scientific Program.

My colleagues in the Directive Board of ALAGE, Dr. Marcos Machado (Vice-president and next President), Dr. Paulo Prado (Information Secretary), Dr. Juan Américo González (Treasurer) and Dr. Adolfo Viñas (International Secretary). And to Dr. Víctor de la Luz who was on charge of the ALAGE web-page.

Cusco, Perú

September the 11th, 2014

## 4. ALAGE ahora es un miembro de cooperación de COSPAR

# COSPAR

ESTABLISHED BY ICSU:  
THE INTERNATIONAL  
COUNCIL FOR SCIENCE

COMMITTEE ON SPACE RESEARCH



President: Prof. L.A. Fisk  
Executive Director: Dr. J.-L. Fellous

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Fax: +33 (0)1 44.76.74.37 ● cospar@cosparhq.cnes.fr ● <http://cosparhq.cnes.fr>

Dr. Marcos Machado  
President  
Latinamerican Association of Space  
Geophysics  
CONAE  
Paseo Colon 751  
Piso 4  
C1063ACH Buenos Aires-CF, ARGENTINA

7 April 2015

Ref: 15.00

Dear Dr. Machado,

Further to recent exchanges with Professor L.A. Fisk, COSPAR is pleased to welcome the Latinamerican Association of Space Geophysics (ALAGE) as a Cooperating Partner. The Secretariat has noted that you are the contact person for business related to the Latinamerican Association of Space Geophysics's Cooperating Partner status. We have also revised the COSPAR web page to reflect the agreement with the Latinamerican Association of Space Geophysics, programmed a link to your organization's website, posted an announcement welcoming the Latinamerican Association of Space Geophysics on the COSPAR Scientific Assembly abstract submission site (<http://www.cospar-assembly.org>), and have asked the General Editor of *Space Research Today*, COSPAR's information bulletin, to place a short notice announcing this agreement in the next issue. You will receive in due time information from the Secretariat concerning activities related to the forthcoming Scientific Assembly of our Committee.

The COSPAR community greatly appreciates your interest in the Committee's activities in the field of space research and technology, and we look forward to close cooperation. In particular, we welcome any proposal that you may wish to submit in conformity with the enclosed definition of the status of Cooperating Partner.

Yours sincerely,

  
Aaron Janofsky  
Associate Director

enc.



41st COSPAR Scientific Assembly and Associated Events:  
30 July - 7 August 2016, Istanbul, Turkey  
Scientific Program/abstract submission: <https://www.cospar-assembly.org>  
Website of the local organizers: <http://cospar2016.tubitak.gov.tr/>  
Chair, COSPAR Scientific Program Committee:  
Prof. E. Gögüs ([ersing@sabanciuniv.edu](mailto:ersing@sabanciuniv.edu))

# COSPAR Cooperating Partners

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A new category of COSPAR affiliates, named "Cooperating Partner", is defined hereunder.

## 1 DEFINITION

A COSPAR Cooperating Partner is a not-for-profit organization, with a primary focus related to space, interested in collaborating with COSPAR on activities aimed at reaching common objectives in the field of space research on a no-exchange-of-funds basis.

## 2 SPECIFICITY

Cooperating Partners differ from other categories of COSPAR affiliated entities:

### 2.1 COSPAR Members

COSPAR Members are National Scientific Institutions, as defined by ICSU, which are engaged in space research and seek membership in COSPAR, or International Scientific Unions federated in ICSU which seek membership in COSPAR. Neither may be a Cooperating Partner.

### 2.2 Associated Supporters

COSPAR Associated Supporters are public or private organizations or individuals wishing to support the Committee's activities. These organizations may or may not be "not-for-profit" and they may pursue much broader interests than space research. Their status does not imply any joint activity with COSPAR, and it is subject to the payment of an annual adherence fee which gives them a number of rights as follows:

*"Associated Supporters are recognized by COSPAR in the Committee's publications and public events. Associated Supporters may also use the title "COSPAR Associated Supporter" in their public activities for the totality of the period for which they retain their status. They are kept informed of all the Committee's scientific programs and activities, and the President of COSPAR seeks their views on Committee policies and activities. Furthermore, registration fees are waived for one representative of each Associated Supporter for COSPAR Scientific Assemblies and Colloquia held during the period for which the appropriate adherence fee has been paid."*

As a result Associated Supporters may not be COSPAR Cooperating Partners.

## 3 IMPLEMENTATION

Organizations seeking to become COSPAR Cooperating Partners are invited to submit an application to the COSPAR Secretariat in the form of a simple letter detailing the organization's statutes, goals, and motivation. Acceptance will be the responsibility of the COSPAR Bureau. Joint activities will be agreed on a case-by-case basis, and a Bureau member will be responsible for oversight. While no exchange of funds is planned under this type of partnership, both COSPAR and the Cooperating Partner may agree on respective funding contributions to any joint activity.

## 4. Noticias de Interés General

- Anunciado por Dra. Blanca Mendoza, 31/10/2014.

### Announcement of a Special Issue of *Advances in Space Research* on Space and Geophysical Research Related to Latin America

Papers are invited for a special topical issue of *Advances in Space Research (ASR)* "Space and Geophysical Research Related to Latin America".

The main objective of this Special Issue of ASR is to highlight recent research activities being conducted in and/or related to Latin America. This includes current space and geophysical research results from scientists in Latin America as well as from other scientists working on space and geophysical research that affects the Latin American region.

Appropriate subjects include (but are not limited to) the following: solar, heliospheric, magnetospheric and ionospheric phenomena, cosmic ray measurements, earth sciences from space (e.g. geophysics: plate tectonic, regional deformation; GPS weather prediction) and Latin American Space Weather activities. Many individuals around the world are conducting research on the South Atlantic Anomaly region, and papers on the SAA are most welcome. Experimental, analytical and theoretical papers will be accepted. All research manuscripts must be original papers (i.e. not published elsewhere); review papers must clearly state that the manuscript is a review and the topic being reviewed.

Papers must be submitted electronically to <http://ees.elsevier.com/asr>. To ensure that all manuscripts are correctly identified for inclusion into the special issue, **authors must select "Special Issue: Latin Amer space research"** when they reach the "Article Type" step in the submission process.

Submitted papers must be written in English and should include full affiliation addresses for all authors. Submitted full-length papers will be considered for publication, subject to peer review by two reviewers. There are no page limits although the length of the paper should be appropriate for the material being presented. The **deadline for submissions is 1 June 2015**. Papers will be published electronically as soon as they are accepted. The printed issue will be assembled within a reasonable time with late papers being printed in regular issues of *ASR*. All articles will be typeset at no cost to the author; there is a nominal charge for printing color figures although there is no charge for color figures on the electronic version.

Dr. Blanca Mendoza (Blanca@geofisica.unam.mx) is the Guest Editor for this special issue. Questions can be directed to Dr. Mendoza or to the *ASR* Co-Editor for Special Issues, Dr. Peggy Ann Shea (sssrc@msn.com).

The general format for submission of papers can be found on the *ASR* Elsevier web site at [http://www.elsevier.com/wps/find/journaldescription.cws\\_home/644/authorinstructions](http://www.elsevier.com/wps/find/journaldescription.cws_home/644/authorinstructions).

**- Comunicado por Dra. Cristina H. Mandrini, 26/05/2015**

Estimados colegas,

Hace dos años COSPAR y el programa International Living with a Star solicitaron la redacción de una "hoja de ruta" a nivel internacional con el fin de avanzar en la comprensión de la meteorología espacial desde el punto de vista científico. Este documento ha sido finalizado y, luego de haber pasado por la evaluación por pares, ha sido publicado en Advances in Space Research.

Un copia preimpresión del documento final, que muestra la totalidad de los miembros del equipo internacional, se puede bajar de:

<http://arxiv.org/abs/1503.06135>

El artículo definitivo se encuentra en:

<http://adsabs.harvard.edu/abs/2015AdSpR..55.2745S>

Un "resumen ejecutivo" en forma de folleto se encuentra en:

<https://cosparhq.cnes.fr/scientific-structure/cospar-scientific-roadmaps>

Del resumen:

"...advanced understanding of space weather requires a coordinated international approach to effectively provide awareness of the processes within the Sun-Earth system through observation-driven models. This roadmap prioritizes the scientific focus areas and research infrastructure that are needed to significantly advance our understanding of space weather of all intensities and of its implications for society. Advancement of the existing system observatory through the addition of small to moderate state-of-the-art capabilities designed to fill observational gaps will enable significant advances. Such a strategy requires urgent action: key instrumentation needs to be sustained, and action needs to be taken before core capabilities are lost in the aging ensemble. We recommend advances through priority focus (1) on observation-based modeling throughout the Sun-Earth system, (2) on forecasts more than 12hrs ahead of the magnetic structure of incoming coronal mass ejections, (3) on understanding the geospace response to variable solar-wind stresses that lead to intense geomagnetically-induced currents and ionospheric and radiation storms, and (4) on developing a comprehensive specification of space climate, including the characterization of extreme space storms to guide resilient and robust engineering of technological infrastructures. ..."

Cordialmente,

Cristina H. Mandrini  
(miembro del equipo de COSPAR/ILWS)

## 4.1 Próximas reuniones científicas

### 4.1a Second announcement: Third Remote Sensing of the Inner Heliosphere Workshop and Space Weather Applications

#### **Second announcement: Third Remote Sensing of the Inner Heliosphere Workshop and Space Weather Applications, Morelia, Mexico, 19-23 October 2015.**

The workshop's website is now open for pre-registration:  
<http://www.sciesmex.unam.mx/workshop2015/>  
We have a Facebook page webpage: <https://www.facebook.com/remotesensingofinnerheliosphere>

“Third Remote Sensing of the Inner Heliosphere and Space Weather Applications Workshop”.  
Morelia, Mexico, 19-23 October 2015.

We announce the "Third Remote Sensing of the Inner Heliosphere and Space Weather Applications Workshop" to be hosted by Universidad Nacional Autónoma de México (UNAM) and held in Morelia, Michoacán, Mexico, 19-23 October 2015. The workshop aims to gather experts from the various fields of remote-sensing observations of the inner heliosphere, including white-light, EUV, and radio observation, together with modellers in order to tackle key outstanding science and space-weather operational issues, establish closer working relations, and devise the best ways to move the field forward as a whole. In addition, the science learned from remote-sensing observations is critical to improving our capabilities of space-weather forecasting. The workshop aims to look at ways in which we can more easily and efficiently share and access the various types of data between individual groups and sub-communities and to officially launch the IPS Common Data Format v1.0 (IPSCDFv1.0) now in use. It also aims to allow investigations into ways in which we model the inner heliosphere looking at the advantages and disadvantages of the available modelling, updates on present and future remote-sensing capabilities, and investigating further the ways in which these data sets all complement each other and are necessary to gain knowledge and understanding of the fundamental physical processes that occur within the inner heliosphere. These are critical processes that are key to both Heliophysics science as well as to space-weather operations and forecasting.

It is anticipated that the Workshop will focus on topics such as:

- Stream and co-rotating interaction regions (SIRs/CIRs).
- Numerical modelling of the inner heliosphere through comparison with remote-sensing observations.
- The solar wind in the initiation phase/acceleration phase and its modelling.
- Present and future observations of interplanetary scintillation (IPS).
- A look at CME events where remote-sensing observations failed us, how and why this occurred, and how might we improve upon this in the future.
- The future of remote-sensing observations of the inner heliosphere - from IPS opportunities (MEXART, STEL, ORT, LOFAR, SKA, etc...) to Heliospheric Imager (HI) opportunities.

Key Dates



Abstract Opening: Friday 20 March 2015  
Abstract Deadline: Friday 28 August 2015  
Pre-registration Opening: Friday 20 March 2015  
Early Registration: Friday 28 August 2015  
Final Registration: Friday 25 September 2015  
Workshop Dates: Monday 19 to Friday 23 October 2015

#### Venue

Unidad Michoacán, Instituto de Geofísica, Universidad Nacional Autónoma de México (UNAM) campus Morelia, Morelia, Michoacán, Mexico.

#### Core Organisers

J. Americo Gonzalez-Esparza (SCIESMEX, UNAM, Mexico)  
Mario M. Bisi (STFC RAL Space, UK)  
Bernard V. Jackson (UCSD, USA)  
David Webb (BC, USA)

Further information about registration, scientific program, financial support, etc., will be posted soon at the following site.

<http://www.sciesmex.unam.mx/workshop2015>

We have a Facebook page webpage: <https://www.facebook.com/remotesensingofinnerheliosphere>

We look forward to your participation in these events.

**Comunicado por Dr. J. Americo Gonzalez-Esparza, 27/03/2015**

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### **4.1b IAGA Symposium A43 “Characterization of Ionospheric and Magnetospheric Processes from Ground and Satellite Observations and Their Connection to Space Weather”, 26th IUGG/IAGA General Assembly**

**IAGA Symposium A43 “Characterization of Ionospheric and Magnetospheric Processes from Ground and Satellite Observations and Their Connection to Space Weather”, 26th IUGG/IAGA General Assembly, Prague (Czech Republic), June 22 - July 2, 2015. The last date for submission of abstract is January 31, 2015.**

A43 Characterization of Ionospheric and Magnetospheric Processes from Ground and Satellite Observations and Their Connection to Space Weather (ICDC/Div. II/Div. III/Div. V)

Convener: Inez S. Batista (Sao Jose Dos Campos, Brasil)

Co-convener: Hisao Takahashi (Sao Jose Dos Campos, Brasil), Archana Bhattacharyya (Navi Mumbai, India)

#### Description:

This symposium will accept contributions for both oral and poster presentations on general studies of the upper atmosphere, ionosphere, and magnetosphere. The emphasis will be on characterization

of ionospheric and magnetospheric processes using ground and /or satellite observations, as well as theoretical and simulation studies. Contributions involving the coupling processes between atmosphere/ ionosphere/ magnetosphere are strongly encouraged. Special emphasis will be given to the connection between the different processes and Space Weather studies, particularly concerning their relevance to the research conducted in developing countries and contribution to the space-related technology and applications.

Details can be found at <http://www.iugg2015prague.com/abstracts.htm>.

**Comunicado por Dra. Inez Batista. 08/12/2014.**

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## 4.1c GEOCIENCIAS 2015 (V Convención Cubana de Ciencias de la Tierra)



### FIRST CIRCULAR



## VI CUBAN EARTH SCIENCE CONVENTION

### Exhibition of New Products, Technologies and Services

**May 4 - 8, 2015**

[www.cubacienciasdelatierra.com](http://www.cubacienciasdelatierra.com)

CONVENTION PALACE, HAVANA, CUBA

### “Geosciences in the service of Society and Development”

The Cuban Geological Society ([www.scg.cu](http://www.scg.cu)) is pleased to invite Cuban and foreign professionals, technicians and university students of Geology, Geophysics, Mining and related sciences, to participate in the V Cuban Earth Sciences Convention, and Exhibition of Products, New Technologies and Services.

The Convention embraces the following scientific events:

- *XI Cuban Geology Congress*
- *VIII Cuban Geophysics Congress*
- *VI Cuban Mining Congress*
- *V Cuban Oil and Gas Congress*
- *XII Cuban Informatics and Geosciences Congress (GEOINFO)*

The convention welcomes presentations about Cuba, the Caribbean or in general about the geology, geophysics and mining experiences in the search and management of natural resources, including minerals (metals, non-metals), water, oil and gas, construction, earthquake research and other geohazards, medical geology, education of geosciences; as well as any other related to the sustainable exploitation of natural resources. We invite professional societies, institutions and non-government organizations to organize workshops, round tables and meetings during the Convention. For coordination, please contact the Organizing Committee at your earliest convenience: [geociencias@mhnc.inf.cu](mailto:geociencias@mhnc.inf.cu), [geociencias@iqp.minem.cu](mailto:geociencias@iqp.minem.cu)

Abstract of presentations must be received before **January 20th, 2015**. Extended abstract or papers to be included in the digital memory must be available before **March 1st, 2015**. [geociencias@mhnc.inf.cu](mailto:geociencias@mhnc.inf.cu). Format is described below.

## REGISTRATION FEE

### Delegate 300.00 CUC

The registration fee provides free access to all convention activities and documentation.

It is possible to pay the registration fee online, at the [www.cubacienciasdelatierra.com](http://www.cubacienciasdelatierra.com), or you can do it into Convention Palace, in Havana.

## REGISTRATION

### 1. AS DELEGATE

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Please copy and fill in the Registration Form and send it as soon as possible to: [geociencias@mhnc.inf.cu](mailto:geociencias@mhnc.inf.cu).

---

#### VI CUBAN EARTH SCIENCES CONVENTION *Registration Form*

Last name

First name

I will attend the Convention as delegate ( ), as companion person ( )

E-mail

Mailing Address:

City                      State/Country                      ZIP/Postal Code

Phone Number                      Fax Number

Presentation: ORAL ( )    POSTER ( )    No presentation ( )

Presentation Title                      Event

### 1. AS EXHIBITOR

---

Please copy and fill in the Registration Form and send it as soon as possible to: [geociencias@mhnc.inf.cu](mailto:geociencias@mhnc.inf.cu).

---

#### Exhibition of new products, technologies and services. Registration form

Last name

First name

Company name

Stand title

I intend to participate in the Exhibition

E-mail

Mailing Address:

City                      State/Country                      ZIP/Postal Code

Phone Number                      Fax Number

## FIELD TRIPS

Before, during and after the convention several field trips will be organized. Detailed information will be available later in the web site. [www.cubacienciasdelatierra.com](http://www.cubacienciasdelatierra.com)

## ABSTRACT SUBMISSION

Abstracts for oral and poster presentations should be submitted as an attachment to [geociencias@mnhnc.inf.cu](mailto:geociencias@mnhnc.inf.cu). In the subject line, please write the words "Abstract to Geosciences 2015" in order to minimize virus spread. **Deadline for Abstracts: January 20th, 2015**

## FORMAT

For presentations at the Convention, abstracts (in English or Spanish) shall be submitted ready for publication in electronic format (.rtf .doc). Abstracts should have between 250 and 450 words and may include an inserted figure in gif format optimized for the web. The size of the abstract, including text and/or figure, should not exceed an 8.5 " x 11" page. The margins should be one inch. Please follow the indications set in the example below or use the given template ([TEMPLATE FOR Abstract to GEOSCIENCES2015.dot](#)). No corrections will be introduced to the abstracts.

### Example:

**TITLE WRITTEN IN UPPER CASE FONT, ARIAL SIZE 12, justify**

Manuel F. Fumaguchi<sup>(1)</sup>, Marina Gonzalez Perez<sup>(2)</sup>

1. Instituto de Geofísica y Astronomía, Calle 212 No 2906 esq. Ave 29, La Lisa, La Habana, Cuba. ZIP 11 600 E-mail: [xxx@bbb.dd](mailto:xxx@bbb.dd); 2. Instituto Superior Politécnico "José A. Echeverría", 124 s/n, Marianao 15, La Habana, Cuba. E-mail: [sss@aaa.uu](mailto:sss@aaa.uu)

Title should be in upper case and justify. The authors' name in upper and lower case, arial font 12. Underline the name of the author presenting the paper. The name of the institutions in upper and lower case should include the address and electronic mail. Leave one line blank between the institution list and the main text of the abstract, as well as between the title and the author list..

The abstract should reflect the theme or hypothesis of the presentation, the materials and methods used, the general results, and specially the conclusions, in **not less than 250 words or more than 450**, single spaced. The text shall be written ARIAL, Size10.

--Figure centered--

### **Guidelines for the papers to be published in the Memoirs of the Convention**

All the presentations accepted by the Scientific Committee can be submitted for publication in the Digital Memories of the Convention (CD-ROM). The contributions should be submitted according with the present guidelines, or will be rejected.

**Contributing papers** should be send **before March 1st, 2015**, to [geocienicas@mnhnc.inf.cu](mailto:geocienicas@mnhnc.inf.cu). You will receive a confirmation. The subject of the email should be "Author's paper to Geosciences 2015", file with the name of the corresponding author. For any question please contact: Kenya Núñez Cambra ([kenya@igp.minem.cu](mailto:kenya@igp.minem.cu) or any other email already given before). Papers are to be prepared as MS Word documents (\*.doc), without macros or hidden formatting. Illustrations can be in white and black and color, but each contribution should not exceed 1 Mb as a whole. Do not use "header" and "footer", because they will be incorporated by the CD publisher.

**General rules:** The following text has been written like a contribution, as example. Texts must be carefully checked for grammar and spelling by the authors, because the editorial committee will reject contributions with spelling and grammar problems.

**THE TITLE OF THE PAPER SHOULD BE WRITTEN IN ARIAL 14", BOLD, WITH JUSTIFY ALIGNMENT. THE TITLE SHOULD NOT BE LONGER THAN THREE LINES**

**Pedro Blanco Pérez<sup>(1)</sup>, Juan Cueto Claro<sup>(2)</sup> y Alberto Rodríguez Alvarez<sup>(2)</sup>**

After a blank space the authors, justify, Arial 12, bold. The speaker underlined, if there are more than one authors and more than one institution, it should be pointed out with numbers in the superscript as in the example.

1. Instituto de Geofísica y Astronomía, Calle 212 No 2906 esq. A Ave 29, La Lisa, Ciudad de La Habana, Cuba. ZIP 11 600, E-mail: [perez@iga.cu](mailto:perez@iga.cu)

2. Instituto Superior Politécnico "José A. Echeverría", Calle 124 s/n, Marianao 15, Ciudad de La Habana, Cuba, E-mail: [hernandez@civil.ipsjae.cu](mailto:hernandez@civil.ipsjae.cu)

After a blank space, the addresses of the authors with numbers, Arial 10, italic, single space.

### **ABSTRACT**

After a blank space, Around 200 words, Arial 10, single space, justify.

### **BODY OF THE PAPER**

After two blanks, the body of the paper must be subdivided into INTRODUCTION, MATERIALS AND METHODS, RESULTS, DISCUSSION, CONCLUSIONS, BIBLIOGRAPHY, Arial 12, uppercase, bold, justify left.

The main text of the paper, Font Arial 11, single space, justify, a blank line between paragraphs and after the headings, also between charts and figures. If it was necessary to use any other subtitle then it would be Arial 12, bold, justify left.



## **Other general rules**

**Format:** Each paper should have at least 4 pages, paper size letter (21,59 x 27,94 cm. or 8,5 x 11 inches.), leaving a margin of 2.0 cm. around the whole page, 1cm of covering the foot of the page.

**Charts (tables):** Should fit page side or less, numbered Table I, II, III..., and include a title, with a blank line before the chart, Arial 10, capital and small, justify left.

**Figures:** Must be included in the text and numbered consecutively, Figures 1, 2, 3... Size should guarantee legibility. Figure caption, Arial 10, capital and small, centered. Figure sized into the page, which is 2.0 cm on each side.

**Units of Measures:** Metric International System.

**Bibliographical References:** The bibliography must be limited to the publications mentioned in the text, listed in alphabetical order, no numbered, indentation 0.5cm, Arial 10, single space, justify.

### **Examples:**

**For periodic publications:** Author, year. Title of the paper. Publication (place), volume (number): page

Pick, M., 1987. On the calculation of the gravity terrain corrections in Czechoslovakia. *Studia. Geoph. et Geod.*, 39 (4): 245-248.

Elbaz-Poulichet, F., D.M. Guan, J. M. Martin, 1991. Trace metal behaviour in a highly stratified Mediterranean estuary: the Krka (Yugoslavia). *Mar. Chem.* 32: 211-224.

**For books or other documents:** Author, year. Title. Edition, Place: Publisher, pages

Finó, F., 1950. Historia y técnica del libro. En Penna, C. V. *Bibliotecología*. Buenos Aires : Kapelusz, 132p.

Smith, G., 1989. Theories pertaining to the mass extinctions at the end of the Cretaceous. Ph.D. thesis, University of London: 109p.

Zavala, S., 1996. La defensa de los derechos del hombre en América Latina. 2. ed. Madrid : Grijalbo: 145 p. (Selección, 4).

**Electronic document:** Author, date. Title [on-line]. Availability or access

Van der Hoek, B., 1998. Study of Carbonate rocks: <http://www.elsevier.com/locate/jstrugeo>

## 4.1d Second COSPAR Symposium in Brazil

### Scientific Organizing Committee (SOC)

André Izidoro (CAPES, Brazil)  
Antonio Geraldo Ferreira (UFCE, Brazil)  
Bernard Foing (ESA, The Netherlands)  
Claudia Lage (UFRJ, Brazil)  
Daniel Vila (INPE, Brazil)  
Eduardo Janot Pacheco (USP, Brazil)  
Ernesto Lopez-Baeza (Univ. Valencia, Spain)  
Francesca Altieri (IASF - INAF, Italy)  
Gail Skofronick- Jackson (NASA, USA)  
Gerhard Kminek (ESA, The Netherlands)  
Hajime Yano (ISAS, Japan)  
Inez Staciarini Batista (INPE, Brazil)  
Jérôme Benveniste (ESA, ESRIN, Italy)  
João Braga (INPE, Brazil)  
Jorge Carvano (ON, Brazil)  
Kensei Kobayashi (Yokohama Univ., Japan)  
Luiz Augusto Toledo Machado (INPE, Brazil)  
Maria Teresa Capria (IASF – INAF, Italy)  
Mauricio Dziedzic (Fac. Positivo, Brazil)  
Michel Boër (CNRS, France)  
Michel Viso (CNES, France)  
Othon Winter (UNESP, Brazil) – Chair  
Paulo Batista (INPE, Brazil)  
Pietro Ubertini (IASF – INAF, Italy)  
Priscilla Cerroni (IASF – INAF, Italy)  
Takuji Nakamura (NiPR, Japan)  
Yogendra Srivastava (Univ. Perugia, Italy)

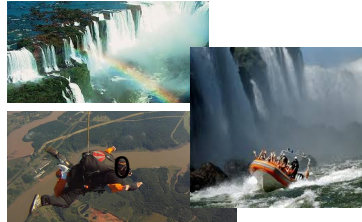


### FOZ DO IGUAÇU BRAZIL

Foz do Iguaçu is a Brazilian city located on the border of Brazil with Argentina and Paraguay.

This amazing city offers one of the most beautiful natural landscapes, with large waterfalls and nature parks. Tourist activities include:

- Walking trails
- Rafting
- Canyoneering
- Helicopter tours
- Parachute jumping
- Macuco safari
- Bird Park
- Itaipu Lake
- Foz do Iguaçu Park Show



More information:

[www.fozdoiguacu.destinodomundo.com.br/en/](http://www.fozdoiguacu.destinodomundo.com.br/en/)



9-13 November 2015  
BRAZIL

FOZ DO IGUAÇU



[www.cosparbrazil2015.org](http://www.cosparbrazil2015.org)





### Scientific Organizing Committee (SOC)

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Antonio Geraldo Ferreira (UFCE, Brazil)  
Bernard Foing (ESA, The Netherlands)  
Claudia Lage (UFRJ, Brazil)  
Daniel Vila (INPE, Brazil)  
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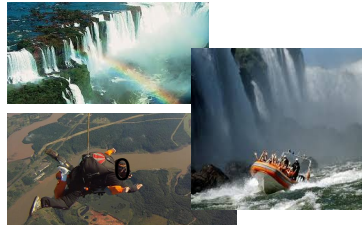


## FOZ DO IGUAÇU BRAZIL

Foz do Iguaçu is a Brazilian city located on the border of Brazil with Argentina and Paraguay.

This amazing city offers one of the most beautiful natural landscapes, with large waterfalls and nature parks. Tourist activities include:

- Walking trails
- Rafting
- Canyoneering
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- Parachute jumping
- Macuco safari
- Bird Park
- Itaipu Lake
- Foz do Iguaçu Park Show



More information:

[www.fozdoiguacuDestinodomundo.com.br/en/](http://www.fozdoiguacuDestinodomundo.com.br/en/)



9 - 13 November 2015

BRAZIL

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Comunicado por Dr. Marcos Machado, 20/07/2015

## 5. Agradecimientos

Un agradecimiento especial a la anterior mesa directiva por el excelente trabajo realizado, en especial a Dra. Blanca Mendoza por los alcances pronunciados.

Agradezco a todos los colegas de la mesa directiva que contribuyeron a este Boletín, especialmente a Dr. Marcos Machado. Así mismo a todos aquellos colegas que ofrecieron las noticias de interés para divulgar en el Boletín de la ALAGE.

Este es el primer boletín editado por la reciente mesa directiva de la ALAGE, escogida en la última reunión de Perú (X COLAGE). Aprovecho el momento para ofrecer los agradecimientos especiales al comité organizador de X COLAGE por su invaluable aporte.

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