
* ISWI Newsletter - Vol. 15 No. 009 17 September 2023 *
* Editor: George Maeda, georgemaeda3[at]gmail.com *
* Archive of back issues: ISWI Website <https://iswi-secretariat.org/> *
* Archive of all ISWI webinars: *
* <https://www.youtube.com/playlist?list=PLa0qa4cng0GF3cKuj6Yz5kqG1BQ-Akkhr> *

Dear ISWI Participants:

If you have any time-sensitive announcements for our ISWI community, please send to me as quickly as you can. It should be two months ahead of the event. This newsletter aims to go out each month on the 15th.

It is published only once per month.

-- Editor.

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AGS Newsletter- Vol.6 No.08 August 2023

-----[African Geophysical Society]-----

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POEM OF THE MONTH: I AM ALWAYS THERE - YOU' RE NEVER ALONE

Read the newsletter here:
<https://mailchi.mp/5651f552f9c9/ags-newsletter-vol1-no-001-27-november-15570592?e=3d8c869948>

[02]-----

Aditya-L1 lifts off to study the sun;

Polar Satellite Launch Vehicle takes off from Sriharikota

.. in one of its longest flights, launches spacecraft in a highly eccentric orbit around the earth
September 02, 2023
By HEMANTH C.S., The Hindu

The seven payloads onboard Aditya-L1 satellite are:

- [1] Visible Emission Line Coronagraph (VELC)
- [2] Solar Ultraviolet Imaging Telescope (SUIT)
- [3] Solar Low Energy X-ray Spectrometer (SoLEXS)
- [4] High Energy L1 Orbiting X-ray Spectrometer (HEL1OS)
- [5] Aditya Solar wind Particle Experiment (ASPEX)
- [6] Plasma Analyser Package For Aditya (PAPA)
- [7] Advanced Tri-axial High Resolution Digital Magnetometers

FROM:

<https://www.thehindu.com/sci-tech/science/indias-first-solar-observatory-mission-aditya-l1-launched-by-indian-space-research-organisation-isro/article67262849.ece>

[03]-----

12 sept 2023
FROM: Christian Monstein

Dear Callisto hosts and interested people

Attached the latest report #96 about Callisto related stuff.
If you have something which might be of interest to the Callisto community, please let me know.

Best regards

SEE:
status_96V01.pdf
001

[04]-----

FROM: Maria Graciela Molina
TO: Editor of the ISWI Newsletter

Dear colleagues,

We are pleased to announce the next ISWI Seminar of 2023 by Dr Doug Rowland scheduled for September 27th at 3 PM Central European Time (9 AM EDT; 6:30 PM IST).

In this opportunity, the ISWI seminar will have a hybrid format, the in-person version will be held at the Tucumán Space Weather Center from Universidad Nacional de Tucumán, Argentina.

To register for the virtual seminar, please send an email to: iswisupport@bc.edu
Please include "ISWI Seminar Registration" in the subject line. There is a limit of 300 participants, so please register your interest as soon as possible. The MS Teams link will be sent to registered participants 2 days before the event.

Please remember that the seminars will be recorded. The playlist with the previous seminars, which will also include future sessions, can be accessed through the following link: https://www.unoosa.org/oosa/en/ourwork/psa/bssi/iswi_webinars.html

Looking forward to meeting you in the next ISWI seminar!
With kind regards,

Graciela Molina
on behalf of the ISWI Seminar Committee

Title:
NASA' s Geospace Dynamics Constellation:
Exploring our Connected Atmosphere

Speaker: Dr Doug Rowland

Abstract:

The world relies on satellites in low earth orbit (LEO) for a wide range of commercial, civil space, and defense applications. Though LEO was one of the first space environments studied from the dawn of the space age, increased usage of this region has highlighted large gaps in our understanding and predictive capability. For example, following a SpaceX launch of 49 Starlink satellites in February 2022, 38 of those satellites were lost to unexpectedly high atmospheric drag that ultimately caused them to deorbit. In this region, Earth' s atmosphere extends to form a tenuous envelope of electrically neutral gas called the thermosphere, and its electrically conductive counterpart, the ionosphere. These two layers of the upper atmosphere coexist over the same altitude range, and this has dramatic consequences for the variability of the LEO space environment. The coupled plasma-gas system responds to electrodynamic, dynamical, and chemical/photochemical forcing, at a range of spatial scales from sub-kilometer to global and time scales from seconds to decades.

NASA plans to develop the Geospace Dynamics Constellation (GDC), a mission within the Heliophysics Living With a Star Program, as a strategic mission that will directly probe the causes of variability in the ionosphere/thermosphere, leading ultimately to a better understanding and predictive capability for the variability in this region. GDC consists of six identical spacecraft, equipped with instrumentation to measure all aspects of the local space environment, including the properties of the ionosphere and thermosphere and the electric and magnetic fields and energetic charged particles that serve as major energy inputs. GDC' s satellites will orbit near 350-400 km altitude, at high inclination, to provide the first-ever comprehensive, global view of the LEO space environment' s variability and the casuses of that variability, on all critical spatiotemporal scales. GDC is currently in formulation, with launch anticipated in the first part of the next decade. In this talk, I will present GDC' s science motivation, planned measurement and sampling strategy.

See the flyer:

Flyer for the webinar of 27-SEPT-2023.pdf
002

Dra. María Graciela Molina
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Researcher CONICET
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[05]-----

We have lost a great space weather researcher and educator:

See:

Lee_Anne McKinnel _ Tribute.pdf
003

Submitted by:

Professor Babatunde Rabiú
United Nations African Regional Centre
for Space Science and Technology Education - English
(UN-ARCSSTE-E),
Obafemi Awolowo University, Ile Ife, Nigeria

[06]-----

AGS Newsletter, Sept 2023 -- not sure.

-----[African Geophysical Society]-----

Contents of this issue:

1.
POSTDOCTORAL RESEARCH POSITION OPPORTUNITY AT THE INSTITUTE FOR SPACE-EARTH ENVIRONMENTAL RESEARCH (ISEE), NAGOYA UNIVERSITY

2.
INVITATION FOR PAPER SUBMISSIONS TO "INTERACTIVE PHENOMENA IN THE SOLAR WIND-MAGNETOSPHERE-IONOSPHERE COUPLING: FRONTIERS IN ASTRONOMY AND SPACE SCIENCES

3.
INTERNATIONAL SEMINAR ON AIR QUALITY AND IOT-BASED AIR SENSORS

4.
TRIBUTE TO A TRAILBLAZER IN SPACE SCIENCE: DR. LEE-ANNE MCKINNEL
(30 DECEMBER 1970 - 19 AUGUST 2023)

5.
POEM OF THE MONTH: SOLITUDE

Read the newsletter here:

<https://mailchi.mp/cff3d7b0225b/ags-newsletter-vol1-no-001-27-november-15575132?e=3d8c869948>

*****[End of this issue of the ISWI Newsletter]*****



001

CALLISTO status report/newsletter #96

New instrument in Mexico

A new Callisto system has recently been installed in Mexico.

Name: MEXICO-FCFM-UANL

Position: 24.75° N ; -99.89° W (UANL Astronomical Observatory)

Operated by: Dra. Esmeralda Romero Hernández

Catedrático, Universidad Autónoma de Nuevo León

Centro de Investigación en Ciencias Físico-Matemáticas, departamento de Astrofísica

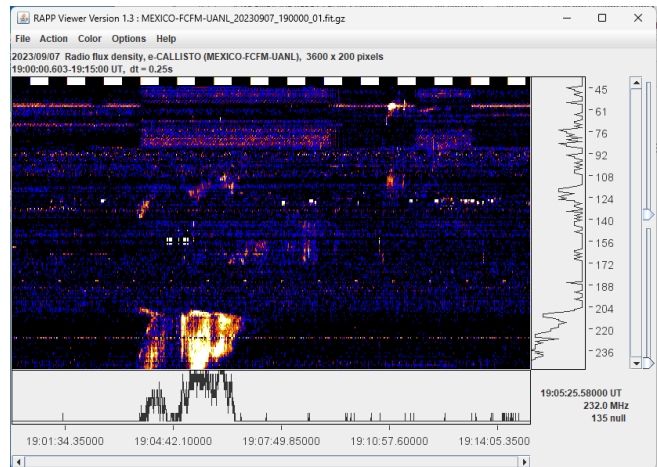


Fig. 1:
Left: LPDA and frontend (LNA)
Right: 1st light with start frequency of a type II burst

Welcome MEXICO-FCFM-UANL on board of the e-Callisto international instrument network!

And GREENLAND is back on-line, many thanks to the Danish team!



Università della Svizzera italiana



n|w University of Applied Sciences Northwestern Switzerland

e-Callisto burst statistics August 2023

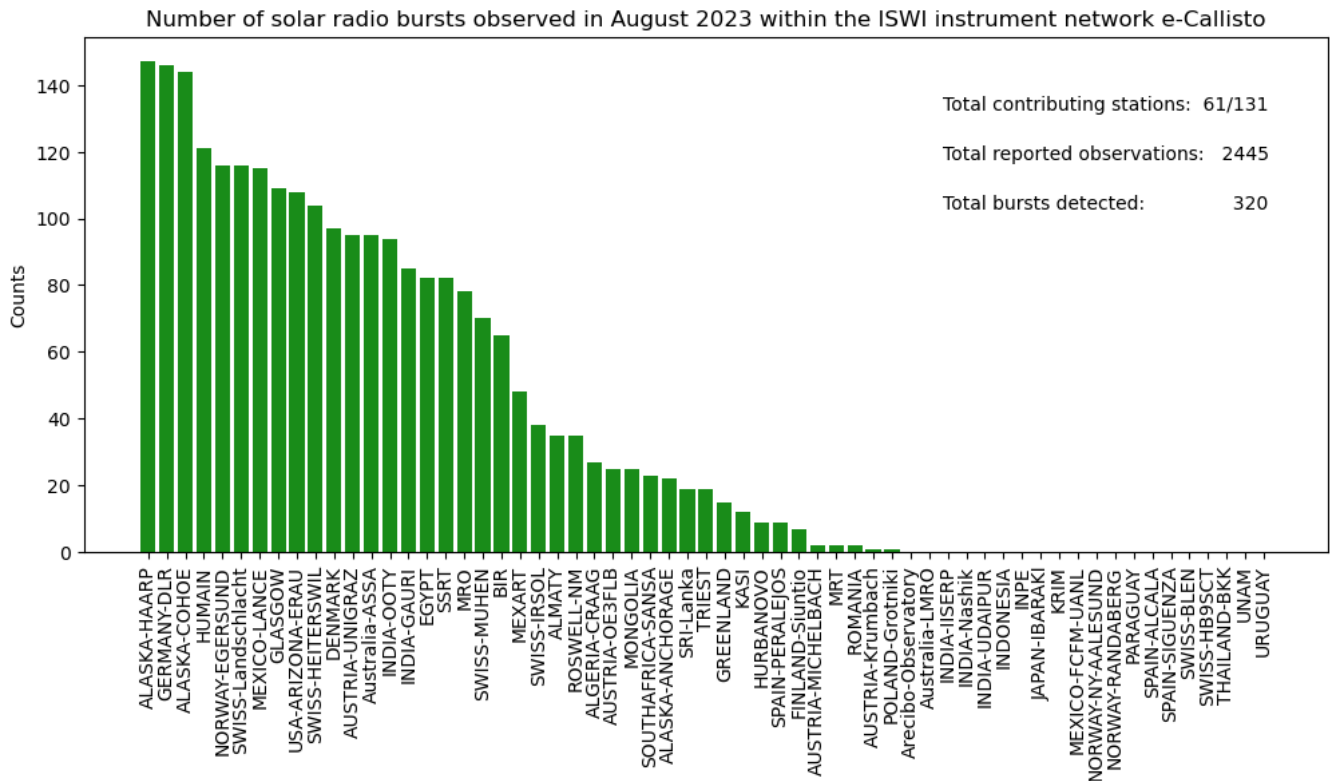


Fig. 7: Compilation of all visually detected bursts from all Callisto-stations which provide data to the e-Callisto network. There are clear ‘winners’ of the ‘competition’, ALASKA-HAARP and GERMANY-DLR in Neustrelitz; congratulations!

Volunteer required:

Starting from September 16th until October 8th, I’ll not be able to generate the burst-lists due to vacation. Generating the burst-list by visual inspection takes 3...4 hours per day. I still hope that one or the other team is able to produce an automatic burst-list, generated based on AI or cross-correlation.

Example for latest visual burst-list here:

http://soleil.i4ds.ch/solarradio/data/BurstLists/2010-yyyy_Monstein/2023/e-CALLISTO_2023_09.txt

In case any volunteer is able to produce such a list, he/she can send it to me such that I can append it to the existing one and upload it to the website.



Papers:

Automatic Burst Detection in Solar Radio Spectrograms Using Deep Learning: deARCE Method
Javier Bussons Gordo, Mario Fernández Ruiz, Manuel Prieto Mateo, Jorge Alvarado Díaz, Francisco Chávez de la O, J. Ignacio Hidalgo & Christian Monstein

<https://link.springer.com/article/10.1007/s11207-023-02171-0>

CESRA NEWS

Electron acceleration efficiency during the impulsive phase of a solar flare: X-ray and microwave observations

by Kontar et al

<https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3538>

Imaging preflare broadband pulsations in the decimetric-metric wavelengths

by Lv et al

<https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3562>

Data-constrained Solar Modeling with GX Simulator

by G. Nita et al

<https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3579>

Solar electron beam velocities that grow Langmuir waves in the inner heliosphere

by Y. Camille et al.

<https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3590>

Two-element interferometer for millimeter-wave solar flare observations,

by Yu et al.

<https://www.astro.gla.ac.uk/users/eduard/cesra/?p=3598>

AOB

- If you have some stuff to present to the Callisto community, please let me know
- IRSOL is meant as the new core-station of the e-Callisto network





- To avoid strange issues with Windows computers, disable disc caching. Otherwise configurations files might not be updated in Callisto with the latest information
- Another access to Callisto data here: <https://vwo.nasa.gov/>
- On September 5th we had for the first time since 2006 80 active stations, providing data to the e-Callisto network.
- CALLISTO or Callisto denotes to the spectrometer itself while e-Callisto denotes to the worldwide network.
- General information and data access here: <http://e-callisto.org/>
- e-Callisto data are hosted at University of Applied Sciences, Institute for Data Science FHNW in Brugg/Windisch, Switzerland. Additionally, data are available at ESA site here: SSA Space Weather Portal (<http://swe.ssa.esa.int/>).
- In case you (as the responsible person for operating and maintenance of Callisto) are leaving the institute or, if you are retiring, please send me name and email address of the successor.

Please do NOT respond to the email-address of the list-server where you have got this document from, it is a computer/robot. This computer will not give you any useful answer...

Respond instead directly to me at: [cmonstein\(at\)swissonline.ch](mailto:cmonstein@swissonline.ch) or [monstein\(at\)irsol.ch](mailto:monstein@irsol.ch)

If you do not want to receive this newsletter, please send me an email and I will take your address out of the database. On the other hand, if you think someone else might be interested in this kind of info, please let me know his/her email-address to be added to the database.

Christian Monstein
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September 27th, 2023

3PM Central European Time
(9AM EDT; 6:30PM IST)



Dr. Doug Rowland

Geospace Dynamics Constellation
NASA Goddard Space Flight Center

NASA's Geospace Dynamics Constellation: Exploring our Connected Atmosphere

The world relies on satellites in low earth orbit (LEO) for a wide range of commercial, civil space, and defense applications. Though LEO was one of the first space environments studied from the dawn of the space age, increased usage of this region has highlighted large gaps in our understanding and predictive capability. For example, following a SpaceX launch of 49 Starlink satellites in February 2022, 38 of those satellites were lost to unexpectedly high atmospheric drag that ultimately caused them to deorbit. In this region, Earth's atmosphere extends to form a tenuous envelope of electrically neutral gas called the thermosphere, and its electrically conductive counterpart, the ionosphere. These two layers of the upper atmosphere coexist over the same altitude range, and this has dramatic consequences for the variability of the LEO space environment. The coupled plasma-gas system responds to electrodynamic, dynamical, and chemical/photochemical forcing, at a range of spatial scales from sub-kilometer to global and time scales from seconds to decades.

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Received by the
ISWI Newsletter office on
14-SEPT-2023. G. Maeda

NASA plans to develop the Geospace Dynamics Constellation (GDC), a mission within the Heliophysics Living With a Star Program, as a strategic mission that will directly probe the causes of variability in the ionosphere/thermosphere, leading ultimately to a better understanding and predictive capability for the variability in this region. GDC consists of six identical spacecraft, equipped with instrumentation to measure all aspects of the local space environment, including the properties of the ionosphere and thermosphere and the electric and magnetic fields and energetic charged particles that serve as major energy inputs. GDC's satellites will orbit near 350-400 km altitude, at high inclination, to provide the first-ever comprehensive, global view of the LEO space environment's variability and the causes of that variability, on all critical spatiotemporal scales. GDC is currently in formulation, with launch anticipated in the first part of the next decade. In this talk, I will present GDC's science motivation, planned measurement and sampling strategy.



To register, please send an email to
iswisupport@bc.edu

In memoriam: Professor Lee-Anne McKinnel



The transition to the great beyond of Prof Lee-Anne McKinnel on 19th August 2023 has left us with great impact that is beyond measure. Indeed, a golden fish has left our ocean. Day after day, I could not pen down my thoughts which I consider necessary for record purpose and as a mark of honour to a woman of courage who has indeed projected the place of women folks in our region. While here she became our collective pride

Professor Lee-Anne McKinnel

Lee-Anne remained consistent in her pursuit of excellence in ionospheric studies and space weather research. She led the Hermanus Magnetic Observatory which later translated to SANSa – Space Science (South African Space Agency, Space Science) for more than 10 years. The facility later became the Regional Warning Centre for Space Weather in Africa. Her passion for space weather studies led to the commissioning of the South African Space Weather Centre in November 2022, an event which attracted global attention. Undoubtedly, Lee-Anne was the number one woman in space weather studies in Africa and ranked among the best in the world. She was our jewel of inestimable value in Africa. A leader who was not afraid of raising leaders. A heroine of our science. She supervised and mentored many students/scientists who are now plying scientific trades in leading institutions across many continents.

Lee-Anne was a great team player/builder and collaborator. Under Lee-Anne, Hermanus was a home to everyone. She has a great team around her all the time and her mentees are flying on her wings everywhere. Mention any active international scientific society in solar-terrestrial physics and her name will ring bell. Her services were felt at URSI, SCOSTEP, IRI, IAGA, ISWI and other relevant communities. She was one of the 4 leading scientists that I worked with as interim executive committee while we were starting off the African Geospace Society in 2009. We later succeeded in establishing the African Geophysical Society in November 2012. Her huge contributions to Space Science and human capacity development was recognized at the second annual conference of the African Geophysical Society in 2015 Nairobi, Kenya, when she was conferred with the fellowship of the Society.

With her passage, we have lost a vibrant global scientist with a record of an outstanding scholarship and extra-ordinary professional attainment. She was a role model who has positively impacted many scientists, some of whom are leading in their various domains today. She was an epitome of diligence, integrity, and courage. She was ever calm and maintained warm personality befitting of an administrator par excellence. She excelled in her glowing career and chaired many international scientific committees and workshop sessions that had to do with our science. Her service to humanity will be forever cherished. Surely, Lee-Anne lives on. Adieu our Professor Lee-Anne!

Professor Babatunde Rabi
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Email: tunderabiu2@gmail.com