November 24, 2023

Dear AAPPS-DPP members,

 $\label{thm:constraints} \mbox{Dr Kirolosse Mina Georges Zaki GIRGIS informed call for abstracts for EGU below.}$

Regards,

M. Kikuchi, CEO

差出人: Kirolosse GIRGIS <girgiskirolosse@esst.kyushu-u.ac.jp>

件名: [EGU2024] "South Atlantic Anomaly" Session - Call for Abstracts

日付: 2023年11月23日22:24:19 JST

宛先: aapps.dpp.ceo@gmail.com

CC: Angelo De Santis <angelo.desantis@ingv.it>, "Saioa A. Campuzano"

<sacampuzano@ucm.es>, Filipe Terra Nova <filipeterranova@gmail.com>

Dear Kikuchi-sensei,

This is Kirolosse from Kyushu University.

May I ask you to distribute our call for abstracts (below) of our session in the upcoming

European Geosciences Union (EGU) to the AAPPS members?

Thank you very much!

Best regards,

Kirolosse

Kirolosse Mina Georges Zaki GIRGIS, PhD

International Research Center for Space and Planetary Environmental Science (i-SPES)

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(We apologize for cross-postings.)

Dear colleagues,

It is our pleasure to invite you to submit an abstract to the session:

ITS5.13/EMRP3 Recent Advancements in the Knowledge of the South Atlantic Anomaly: A New Integrated Science

Geomagnetic research provides clues toward understanding our planet from its core to the near-space environment. The South Atlantic Anomaly (SAA) exhibits two magnetic intensity minima, the weaker in South America and the other near Africa.

The past and ongoing scientific programs have significantly advanced our knowledge of the SAA. Ground magnetic observations and spacecraft measurements (Champ, Swarm, etc.) led to the development of Earth's internal magnetic field models, such as the International Geomagnetic Reference Field (IGRF) and the CHAOS models. Field forecasting by data assimilation predicts that the African minimum will become weaker than the South American. Recent studies reveal that these magnetic minima may appear at multiple locations, adding new constraints to the Earth's core dynamics models.

While this anomaly originates as a magnetic phenomenon, it has evolved into an interand transdisciplinary research field, connecting with various sciences to comprehensively understand its origins, its implications for our planet's future, and signaling potential societal impacts: starting by geophysics studies, which consider the formation and historical evolution of the SAA, geobiology studies are capable of exploring the interactions of the SAA with the biosphere and forecasting its possible connection with climate, and geospace studies can effectively investigate the energetic particle precipitation in the SAA, its relationship with space weather, and the corresponding radiation effects on the upcoming Low-Earth Orbit (LEO) satellite missions.

This session welcomes submissions related to the SAA (and other regions of weak intensity field) covering the inter- and transdisciplinary research aspects and encouraging future research collaborations. Furthermore, the session invites studies examining the magnetic field anomalies on other Solar System planets, their origins, and their impact on the forthcoming space missions.

Remember that the deadline for the abstract submissions is 10 January 2024, at 13:00 CET.

Session description:

https://meetingorganizer.copernicus.org/EGU24/session/50349

Abstract submission:

https://meetingorganizer.copernicus.org/EGU24/abstractsubmission/50349 European Geosciences Union (EGU) (https://www.egu24.eu) is currently still planning on a hybrid meeting, please check the important dates of this month on the EGU24 website (https://www.egu24.eu/updates/all.html).

We look forward to receiving your contributions.

Thank you very much for your attention.

Sincerely yours,

Kirolosse Girgis (Kyushu University, Japan)

Angelo De Santis (National Institute of Geophysics and Volcanology, Italy)
Filipe Terra Nova (Nantes University, France)
Saioa A. Campuzano (Complutense University of Madrid, Spain)