

Dear IAU Division E colleagues,

I hope you are all doing well.

After the Executive Committee (EC) Meeting 110 at the end of April, there are several good news that I would like to share with all of you.

1) One of the non-GA symposia, proposed and coordinated, by our Division for 2025, was approved:

IAUS 400: Solar and stellar multi-scale activity

Information can be found at:

<https://iau.org/science/meetings/future/symposia/2792/>

2) 2023 PhD Prize winners were presented by all Divisions during the EC meeting.

Our winner is: Robert Jarolim, Austria, “Frontiers of Artificial Intelligence in Solar Physics”

This is the announcement:

The Division E President, Cristina Mandrini, and the Division E Steering Committee “found Robert Jarolim's thesis excellent and innovative. This thesis is devoted to the role of artificial intelligence (AI) in automatically identifying structures in solar images, performing transformations between different image domains, and assessing the quality of ground-based observations. Dr. Jarolim has also applied deep learning to perform magnetic field extrapolations and constrain the 3D global plasma distribution of the solar atmosphere. All his works are relevant to understanding the physical problems underlying the solar phenomena analysed. Dr. Jarolim’s list of publications is extensive.”

We also have two Honorable Mention winners:

Devojyoti Kansabanik, India, “Deciphering Radio Emission from Solar Coronal Mass Ejections Using High-fidelity Spectropolarimetric Radio Imaging”

Xingyu Zhu, China, “Wave-like Turbulent Energy Partition and Transfer in the Solar Wind”

Our candidate, Abril Sahade, received the PhD "at-large" Prize supported by all the Division Presidents and approved by the EC.

This is the announcement:

“Deflection of Coronal Mass Ejections”

The IAU Divisions jointly said: *“Dr. Sahade’s thesis combines a thorough and complete observational analysis and MHD simulations, including the development*

and implementation of observational analysis and numerical tools. The approach is innovative. The thesis is compelling not only for the advancement in the understanding of the underlying physics but also for space weather forecasting. Summarising, the thesis concentrates on the investigation of the evolution and deflection of erupting flux ropes (EFRs), the core of coronal mass ejections, from the early stages of their destabilisation in the lower corona. Multi-view point data (stereoscopic observations) are reconstructed in 3D to determine EFR trajectories and other physical parameters. Parametric studies using MHD simulations are performed to analyse factors contributing to the EFRs deflections. Particular complex events are modelled.”

Our congratulations to all of them!!

Information can be found at:

<https://www.iau.org/news/announcements/detail/ann24016/>

3) IAU General Assembly 2024

Start date/time: August 6, 2024, 09:00 - End date/time: August 15, 2024, 18:00 - Place. Cape Town, South Africa

Symposia and focus meetings of which Division E is the coordinating division include the following

(<https://astronomy2024.org/programme-overview/>)

•IAUS 390: A Multi-Point view of the Sun: Advances in Solar Observations and in Space Weather Understanding

<https://indico.ict.inaf.it/event/2720/overview>

•FM 8: Advances and Challenges in Understanding the Solar and Stellar Dynamos

https://sun.njit.edu/IAU_FM8/

In addition to these, we will have the "Division Days" highlighting the science of Division E (organized by Div. E). The full program can be found here:

<https://astronomy2024.org/division-e-sun-and-heliosphere/>

Hoping to see you at Cape Town!!!

Passings of colleagues

The following Division E members have passed away after our latest newsletter:

(see

https://www.iau.org/science/scientific_bodies/divisions/E/DeceasedDivisionE/):

Dr. [Bimla Buti](#) (1933-2024)

Dr. [Giovanni Lapenta](#) (1965-2024)

All will be missed.

Do not hesitate to contact me with any questions or comments on Division E activities.

Cristina H. Mandrini