Report on the outcomes of a presentation and participation - Young Researcher and Innovator Conference[1]

Action number: CA21126

Grantee name: Arun Subramani

Conference Details

Conference title: European Conference on Laboratory Astrophysics

Conference web-page: https://www.mpia.de/ecla2026

Conference venue[2]: Max-Planck Institute für Kernphysik

Accepted contribution details

Title of the presentation: Radiative stabilization in the first aromatic rings

Type of the presentation: Poster

Co-authors: Paul Martini, James Bull, Henrik Cederquist, Henning Zettergren, Henning Schmidt ,Mark Stockett

Other details of the presentation: Poster sessions on September 22 and September 24, 2026.

Outcome of the conference participation

Description of the outcome of the presentation of the accepted contribution, in terms of grantee's visibility, including the establishment of new contacts for future collaborations

The European Conference on Laboratory Astrophysics is one of the large astrochemistry conferences that is regularly organised every few years in Europe and thus offers an opportunity for the European astrochemistry community to meet and discuss their most recent results. This year's edition focused on "Exploring the cold universe" and focused on research related to molecular clouds, planetary atmospheres, protoplanetary discs etc. This is very topical, following the launch of the james webb space telescope which has lead to observations of these environment in unprecedented spatial and spectral resoltuon and the recent advances in radio antenna technology which has enabled the first direct detections of complex organic molecules, also in these environments.

My research so far, had focused on hot and irradiated environments and this conference gave me an opportunity to re-contexualise my results to these regions in space as well. I was able to find a common link with different research groups, which helped me find new research directions and areas where my research could also contribute to. Concretely, I was able to establish new connections with researchers at the university of Amsterdam and we are in discussion to write joint proposals to carry out followup experiments to my current results in international research facilities in both Sweden and

[1] This report is submitted by the grantee to the Action MC for approval and for claiming payment of the awarded grant. The Grant Awarding Coordinator coordinates the evaluation of this report on behalf of the Action MC and instructs the Grant Holder Manager to verify the grant documents compliance and proceed with the payment.

[2] For an online conference, specify virtual participation; for hybrid conferences, specify whether it is an in-person or virtual participation.

Netherlands. This conference also gave me a chance to meet with my collaborators based in countries other than my home laboratory and discuss the status of several of my projects. In this regard, we were able to finalise some of our results and are now preparing them for an upcoming publication.

My home laboratory is an international user facility which allows for external research to carry out experiments, if they submit a proposal that is also peer reviewed. In this regard, I was able to highlight the class of experiments I regularly perform and had several discussions with researchers, who were thinking of being prospective users of our facility. In this regard, I was able to bring exposure to my laboratory as well, beyond my own research.

As a phd student who is more than halfway done with his phd, it is very important to make academic connections in order to look for future postdoc postitions. In this regard, I had several useful conversations with group leaders from different laboratories about prospective grant opportunities and future positions, which will ultimately help my own research career.

Acknowledgement of inclusion of necessary supporting documents to claim the grant

I confirm that the following documents have been uploaded on e-COST as an integral part of this report:

- the certificate of conference attendance issued by the conference organiser.

- the programme of the conference or book of abstracts / proceedings indicating the presentation (oral or poster) of the grantee.

- the poster presented.