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

Action number: CA21126

Grantee name: Cate Anstöter

Conference Details

Conference title: Advances in Theory of Electronic Resonances

Conference web-page: https://advances-in-theory-of-electronic-resonances.raiselysite.com/

Conference venue[2]: Telluride Science & Innovation Center, 300 S Townsend St, Telluride, CO 81435, United States

Conference start and end date: 10/08/2026 to 14/08/2026

Accepted contribution details

Title of the presentation: "Metastable states of molecular anions: Developing fundamental understanding of energies and lifetimes in isomeric polycyclic aromatic hydrocarbons of astrochemical relevance"

Type of the presentation: (oral/poster) Oral

Co-authors: Chiara Beldì, Kirsty Wylie

Other details of the presentation: specify here any additional details related to the contribution (e.g. title of the session / track of the conference programme in which the contribution is accepted)

Invited speaker, PI of group

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

(max.500 word)

At the Telluride Workshop *Advances in Theory of Electronic Resonances* I presented my group's work on metastable molecular anions to an audience of leading researchers in the field. The talk was very well received and prompted extensive discussion in the session and after.

A key outcome was the strengthening of my existing collaboration with Thomas-Christian Jagau (KU Leuven). Presenting the work in person allowed us to align our approaches and refine the scientific direction. The results I showed will form the basis of a joint paper of importance for the field, and the workshop gave us the time to discuss and plan this properly.

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

The workshop also established a valuable new collaboration with Ken Jordan (U. Pittsburg), a highly respected senior figure in the study of temporary anions and electron-molecule interactions. Our discussions opened a promising line of joint work on anthracene, which connects directly to my group's current programme. Building a relationship with a researcher of his standing is a significant step for a new group, and one that would have been difficult to achieve without meeting in person.

As a new PI (less than twelve months into my first independent position) this visibility has been especially valuable. Presenting alongside established leaders, and being engaged seriously by them, has raised my profile at this critical early stage of my career. The contacts made will support future collaborative proposals and funding applications.

The talk also raised awareness of the position of our field in relation to astrochemistry, an area of growing importance where the behaviour of molecular anions is directly relevant. Highlighting this connection helped situate the work within a broader scientific context and generated interest from researchers who had not previously considered these links.

This engagement was reinforced by my wider involvement with the COST action community. In July I attended a conference organised and attended by members of the action, *Exploring the Aromatic Universe in the JWST Era*, which helped build the scientific context underpinning the work I presented at Telluride. Taken together, these activities have significantly increased my visibility, established new contacts for future collaboration, and connected my group more firmly to the international community working on electronic resonances.

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.

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

- copy of the given presentation (oral or poster).