

Commission C15: Atomic, Molecular and Optical Physics

Report (July 2022 to August 2023) to the IUPAP Council & Commission Chairs meeting

Submitted by Rosario González-Férez (Chair)

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C15 Activities:

The major activities from July 2022 to August 2023 are categorized into the following items.

1. IUPAP C15 Early Career Scientist Prize 2023

The Commission C15 in AMO Physics of the International Union of Pure and Applied Physics (IUPAP) decided to award Hong-Guang Duan the Early Career Scientist Prize in AMO Physics 2023: *“For his outstanding contributions to the field of biomolecular lightharvesting and excitation energy transfer; to understand the role of quantum coherence in the exciton transfer dynamics and refine of the tools of nonlinear femtosecond spectroscopy.”*

Hong-Guang Duan obtained his bachelor’s and master’s degrees from Sichuan Normal University and Ningbo University, respectively. He continued his academic pursuits at the University of Hamburg and the Max Planck Institute in Germany, completing his Ph.D. with the distinction of Summa Cum Laude in 2018. Following his postdoctoral studies at the Max Planck Institute, Hamburg University, and the European XFEL, he was appointed Professor at Ningbo University in 2021 where he assumed a leadership role in the field of optical science within the physics department. Prof. Duan’s doctoral research focused on studying the ultrafast energy transfer and quantum coherence in photosynthetic systems. He is known by his outstanding contributions to the field of biomolecular lightharvesting and excitation energy transfer, where he combines excellent

experimental skills, with the most advanced theoretical description of his experimental findings. Currently, his research centers on employing ultrafast spectroscopy and electron diffraction techniques to unravel the dynamics of wave packets and structural transformations in various materials.

2. Conference attendance

The Chair and Vicechair of C15, together with three members attended the [33rd International Conference on Photonic, Electronic and Atomic Collisions \(ICPEAC\)](#) held in Ottawa, Canada, from July 25th to August 1st, 2023. During the meeting the IUPAP C15 Early Career Scientist Prize 2023 ceremony took place, Hong-Guang Duan delivered an invited talk, and the Chair gave him the Medal and Diploma. The members of the C15 present in Ottawa had an informal meeting during one of the coffee breaks.

The Chair of C15 attended the 27th International Conference on Atomic Physics held in Toronto, Canada, from 17 to 22 July 2022. During this meeting, IUPAP C15 Early Career Scientist Prize 2022 ceremony took place, Ana Asenjo-García delivered an invited talk and the Chair gave her the Diploma.

3. Conference Support

We have recommended to support as Type A conference the [28th International Conference on Atomic Physics](#) to be held in London, UK, from July 14th to 19th, 2024.

4. Meeting of the C15 members.

A virtual meeting of the C15 members was held on January 27th, 2023. The Chair informed the members about the EC&CC and General Assembly held in July 2022. We discussed:

- the conditions and rules applied for the organization of future conferences, with emphasis on the necessity to increase women participation as invited speakers,
- the Early Career Scientist Prize and possible actions so that nominations represent the whole international AMO Physics community in terms of gender, other under-represented groups and geographical regions,
- ways of ensuring the Call for nominations for Early Career Scientist Prize reaches as many relevant colleagues as possible, particularly those in countries that are not represented in the Commission.

In addition, the Chair, Vicechair and Secretary had several virtual meetings where different points related with the ECSP 2023 were organized and discussed.

Future schedule:

- Since most of the C15 members did not attend [33rd International Conference on Photonic, Electronic and Atomic Collisions \(ICPEAC\)](#) held in Ottawa, the next C15 meeting will take place online and, most probably, in September 2023.