

IUPAP Commission C15: Atomic, Molecular, and Optical Physics

Website: <https://iupap.org/who-we-are/internal-organization/commissions/c15-atomic-molecular-and-optical-physics/>

Mission:

Commission C15 fosters international collaboration and knowledge sharing in atomic, molecular, and optical (AMO) physics. Its scope includes the study of atomic and molecular properties, dynamics, interactions, and laser-based applications. The Commission organizes and coordinates international conferences, promotes open scientific dialogue, recognizes outstanding contributions in the field, and partners with other scientific organizations to advance AMO research and its global applications.

Current Officers (2025–2027):

- **Chair:** Jaewook Ahn (South Korea)
- **Vice-Chair:** Dag Hanstorp (Sweden)
- **Secretary:** Marta I. Hernandez (Spain)

Members (2025–2027):

Francesca Ferlaino (Austria), Heide Ibrahim (Canada), Xiaojun Liu (China), Igor Jex (Czech Republic), Pierre Suret (France), Nina Rohringer (Germany), Urbasi Sinha (India), Takuya Hirano (Japan), Nataliya Kundikova (Russia), Andrew Brown (UK), Yuri Ralchenko (USA)

Associate Members (2025–2027):

Omar Fojon (Argentina), Nicole Fabbri (Italy), Xavier Urbain (Belgium), Nilam Shrestha (Nepal)

IUPAP Early Career Scientist Prize in AMO Physics 2025:

- **Nominations evaluated:** 32 (including 11 new)
- **Awardee:** Dr. Kirill Koshelev, Australian National University, Canberra, Australia
- **Presentation:** ICPEAC 2025, Sapporo, Japan
- **Recognition:** For pioneering research on extreme light trapping in ultrasmall nanostructures via optical resonances, including Mie modes and bound states in the continuum (BICs).

IUPAP-Sponsored AMO Physics Conferences:

2025:

- **Type A:** ICPEAC 2025 (34th International Conference on Photonic, Electronic, and Atomic Collisions)
 - Date: July 29 – August 5, 2025
 - Location: Sapporo, Japan

- **Type B:** ICOLS 2025 (26th International Conference on Laser Spectroscopy)
 - Date: June 2–7, 2025
 - Location: Elba Island, Tuscany, Italy
 - Topics: Laser spectroscopy and related areas in AMO physics, including applications

Upcoming 2026 Conferences:

- **ICAP 2026 (29th International Conference on Atomic Physics):**
 - Date: June 14–19, 2026
 - Location: Wuhan, China
 - Organizers: Mingsheng Zhan (CAS), Xuzong Chen (Peking University), Zhengtian Lu (USTC), Xinye Xu (East China Normal University)
 - Topics: Quantum gases; precision measurements; atomic clocks and interferometers; cold molecules; quantum optics and cavity QED; dipolar gases; qubits and quantum computation; ultrafast/intense field science; quantum information and simulation