

2025 BEC Award Winners Announced

Honoring Excellence in Quantum Research: TOPTICA recognizes groundbreaking achievements in ultracold atomic physics at the BEC 2025 conference in Spain.

Graefelfing, Germany | Oct 15, 2025

TOPTICA Photonics SE congratulates the recipients of the 2025 BEC Awards, which were officially presented on September 10, 2025, during the *Bose-Einstein Condensation 2025* conference in Sant Feliu de Guíxols, Spain.



From left to right: Dr. Jürgen Stuhler (TOPTICA Photonics), Prof. Leticia Tarruell (Junior BEC Award recipient), Prof. Maciej Lewenstein (Lifetime Achievement Award recipient), Prof. Dan Stamper-Kurn (Senior BEC Award recipient), Prof. Randy Hulet (Lifetime Achievement Award recipient), Prof. Klaus Sengstock (Chair of the BEC Awards Committee), and Prof. Dr. Eugene Demler (BEC Awards Committee) – Photo by G. Astrakharchik / U. Bhattacharya

The awards recognize groundbreaking achievements in the field of ultracold quantum gases and are presented under the auspices of the biannual BEC conference.

The **Junior BEC Award 2025** was awarded to **Prof. Leticia Tarruell** for her seminal work on quantum droplets made of Bose mixtures and supersolidity in spin-orbit coupled Bose-Einstein condensates.

The **Senior BEC Award 2025** went to **Prof. Dan Stamper-Kurn** for his seminal contributions to the field of ultracold atoms, including early studies of Bose-Einstein condensation, magnetic phenomena in quantum gases and cavity optomechanics.

Two researchers were honored with the **BEC Lifetime Achievement Award 2025**:

- **Prof. Randy Hulet** was recognized for his pioneering experiments on bosonic and fermionic quantum gases, including Bose-Einstein condensation with attractive interactions, soliton formation, and fermion pairing.
- **Prof. Maciej Lewenstein** received the award for his visionary and transformative theoretical work, which has profoundly shaped the field and inspired both experimental and theoretical advances.

About TOPTICA

TOPTICA has been developing, producing, and marketing high-end lasers and laser systems for science, research, and industry for over 25 years. The portfolio includes tunable diode lasers, ultrafast fiber lasers, terahertz systems, and optical frequency combs.

Worldwide, TOPTICA has 600 employees, organized in seven business entities with a consolidated group revenue of €140 million.

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The TOPTICA BEC Awards honor outstanding contributions to the physics of quantum degenerate gases – in both theory and experiment. The **Junior Award** highlights early-career excellence, the **Senior Award** recognizes recent, field-defining work, and the **Lifetime Achievement Award** honors sustained, transformative impact over a scientific career.

Each recipient received a certificate and a monetary prize. The awards are fully sponsored by **TOPTICA Photonics SE**, reflecting the company's deep commitment to supporting the global quantum research community.

The **TOPTICA BEC Awards** are presented biennially during the international *BEC Conference*. The selection was carried out by an independent committee composed of leading scientists in the field:

Klaus Sengstock (Chair), Monika Aidelsburger, Eugene Demler, Alexander Fetter, Wolfgang Ketterle, Tilman Pfau, and Wilhelm Zwerger.

Learn more: <https://indico.phys.ethz.ch/event/143/page/44-bec-awards-2025>