

# Bose-Einstein Condensation Awards 2021

## TOPTICA Photonics congratulates the award winners

The BEC Awards ceremony took place during this year's conference Bose-Einstein Condensation (BEC) 2021. The winners of the TOPTICA BEC Awards are elected biannually by an independent scientific committee.



Award winners (from left to right):  
Rudolf Grimm, Tin-Lun (Jason) Ho, Martin Zwierlein, Tilman Esslinger  
(Photo credit: IQOQI)

### About Bose-Einstein Condensation 2021

BEC is a biennial conference on Bose-Einstein Condensation open to all scientists interested in this field. This outstanding scientific forum provides participants with the possibility to share the latest developments. BEC 2021 took place in Sant Feliu de Guixols (Spain) from September 11th to 17th 2021. Visit <https://bec2021.org/> for further information.

The TOPTICA Senior and Junior BEC Awards honor outstanding research in Experimental and/or Theoretical Physics of Quantum Degenerate Atomic Gases. The newly established TOPTICA BEC Award for Lifetime Achievements recognizes longstanding important contributions to the field.

Dr. Juergen Stuhler, Vice President Quantum Technologies at TOPTICA, handed over the awards in Sant Feliu de Guixols (Spain) on 12<sup>th</sup> of September 2021.

“TOPTICA is proud to sponsor the recognized awards in a research field that developed symbiotically together with our company over the last more than 25 years. Congratulations - in the name of the whole TOPTICA team - to the awardees for their wonderful experimental work, the theoretical insight in BEC-related phenomena and the friendship we developed over the years. It was a pleasure to travel to Spain for the Award ceremony and to attend the conference.”

### TOPTICA BEC Junior Award 2021

The Junior BEC Award is given to Martin Zwierlein who is a professor in MIT for “his pioneering contributions to the field of ultracold quantum gases, specifically Fermi and Bose polarons, rotating condensates, spin and charge transport and the unitary Fermi gas.”

### **TOPTICA BEC Senior Award 2021**

The Prize Committee of the BEC Awards 2021 has awarded the Senior BEC Award to Tilman Esslinger and Rudolf Grimm.

Tilman Esslinger, professor at ETH Zürich, is elected “for his pioneering work on ultracold quantum gases in optical lattices, topological systems, quantum gases in cavities and quantum transport”. Rudolf Grimm, professor at University of Innsbruck and IQOQI, is awarded “for his pioneering work on Feshbach resonances, BEC-BCS crossover physics as well as few-body phenomena such as Efimov states.”

### **TOPTICA BEC Lifetime Award**

TOPTICA BEC Lifetime Award is awarded to Tin-Lun (Jason) Ho, professor at Ohio state University, for “his longstanding broad contributions to our understanding of ultracold quantum gases.”

### **About the TOPTICA BEC Award:**

The TOPTICA Senior and Junior BEC Awards 2021 honor outstanding research in Experimental and/or Theoretical Physics of Quantum Degenerate Atomic Gases. The senior prize recognizes a specific work that is firmly established and has significantly advanced the field of quantum degenerate gases. The junior prize recognizes outstanding work by a young scientist for independent research early in his or her academic career. The newly established TOPTICA BEC Award for Lifetime Achievements 2021 recognizes longstanding important contributions to the field. The prizes are awarded under the auspices of the biannual BEC conference and are sponsored by TOPTICA Photonics AG.

2021 Committee Members (elected by the Scientific Committee of the BEC conference): Immanuel Bloch (MPQ München, Germany), Francesca Ferlaino (University of Innsbruck, Austria), Wolfgang Ketterle (MIT, USA), Lev Pitaevskii and Sandro Stringari (University of Trento, Italy), Päivi Törmä (Aalto University, Finland).

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TOPTICA has been developing and manufacturing high-end laser systems for scientific and industrial applications for 20 years. Our portfolio includes diode lasers, ultrafast fiber lasers, terahertz systems and frequency combs. The systems are used for demanding applications in biophotonics, industrial metrology and quantum technology. TOPTICA is renowned for providing the widest wavelength coverage of diode lasers on the market, providing high-power lasers even at exotic wavelengths.

Today, TOPTICA employs 340 people worldwide in six business units (TOPTICA Photonics AG, TOPTICA eagleyard, TOPTICA Projects GmbH, TOPTICA Photonics Inc. USA, TOPTICA Photonics K.K. Japan, and TOPTICA Photonics China) with a consolidated group turnover of € 76 million.