



2023 RSEF-BBVA Foundation Physics Awards

Prof Valerio Pruneri takes home the Physics, Innovation and Technology award

December 15, 2023

The Physics Awards, awarded jointly since 2008 by the RSEF and the BBVA Foundation, recognize creativity, effort and achievement in the field of physics to give impetus and visibility to the best researchers in Spain, with special attention to the young people, as well as excellence in teaching and dissemination. In its 23rd edition, Valerio Pruneri, ICREA professor at ICFO, Corning, Inc. Chair and leader of the [Optoelectronics research group](#), was named the recipient of the award in the area of Physics, Innovation and Technology for his contributions to the study of quantum nature and its exploitation for applications in biosensors and cryptography, which have given rise to a large number of patents.

Physics is an essential science not only to advance the fundamental understanding of matter and the universe, but also to lay the foundations for future technological revolutions that can help overcome the greatest challenges facing humanity today. This is one of the central messages put forward during the Physics Awards ceremony which took place on December

for 16th at the BBVA Foundation headquarters in the Marques de Salamanca Palace. It was chaired by the director of the BBVA Foundation, Mr. Rafael Pardo, and the president of the RSEF, Mr. Luis Vina

The awards granted by the Royal Spanish Society of Physics (RSEF) and the BBVA Foundation have recognized advances that reflect the extraordinary potential and breadth of this scientific field: from the exploration of the fundamental components of matter to the creation of new materials that can boost the development of quantum computers

2023 Awardees:

The **Medal of the Royal Spanish Society of Physics (RSEF)** has been awarded to **Eulogio Oset Baguena** Emeritus Professor of Theoretical Physics at the Universitat de Valencia and the Instituto de Fisica Corpuscular (of the Universitat de Valencia and CSIC)

The **Physics, Innovation and Technology Prize** was awarded to **Valerio Pruneri**, ICREA professor at ICFO

In the **Young Researcher categories**, **Jose Luis Lado Villanueva**, tenure-track assistant professor of Applied Physics at Aalto University (Finland) was recognized in Theoretical Physics, and **Carla Marin Benito**, lecturer in Theoretical Physics at the Institut de Ciencies del Cosmos at the Universitat de Barcelona, was recognized in Experimental Physics.

The awards for **Best Articles in RSEF publications** were awarded, in the Teaching category, to **Manuel Alonso Orts**, postdoctoral researcher at the Institute of Solid State Physics of the University of Bremen, Germany, and **Manuel Alonso Sanchez**, teacher of Physics and Chemistry in Secondary and Baccalaureate in the Valencian Community.

“Without physics, we cannot understand nature,” said Valerio Pruneri in his award acceptance speech. But at the same time, fundamental discoveries from basic research are often later transformed into inventions that can effectively change industry and the daily life of society. In the case of Pruneri, through research designed to understand and control the interaction of matter with light, the team he leads has developed chips to increase efficiency in the field of telecommunications, devices to reinforce cybersecurity against hacker attacks and sensors to detect toxic bacteria in water. “We always start from the fundamental principles of physics and, using advanced nano-manufacturing techniques, we develop technologies that can be transformed into products,” he explained.

. Congratulations to Valerio and to all of the 2023 RSEF- BBVA awardees for this well-deserved recognition.



Awardees of the 2023 RSEF-BBVA Foundation Physics Awards (photo: Fundacion BBVA)



Interview with Valerio Pruneri (photo: Fundacion BBVA)