



Quantum Physics: From the Toaster to the Computer



Quantum physics: Over a Century of Knowledge and Transformative Applications

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Organising Committee



Description

Quantum physics has changed how we see nature and has been a cornerstone for technological development for over a century. It continues to be able to surprise us and is still providing innovative know-how and transformative applications.

I will begin this talk with a brief overview of the main quantum discoveries and phenomena, along with the most notable applications.

They include the transistor and microelectronics, that make computers and mobile phones possible; and the laser, essential in communication, material processing and surgery, to name a few fields.

I will then address the challenges that we are facing to develop new applications in areas such as sensors, communications and computing. I will also look at the state-of-the-art both internationally and locally. I will there stress the UPV/EHU's contribution through EHU Quantum Center to training, research and technology transfer.

Program

02-07-2024

17:00 - 17:15 Agintarien agurra / Saludo de las autoridades

17:15 - 17:45 “Irekiera hitzaldia: Conferencia Inaugural: “

Gonzalo Muga | UPV/EHU - Exdirector de EHU Quantum Center, actualmente colaborador

17:45 - 18:00 Agintarien hitzak / Intervención autoridades

Teachers



Gonzalo Muga

Former EHU Quantum Center director, currently a contributor

PhD UPV/EHU 1986; Postdocs Brussels-Jerusalem-Vancouver-Madrid; 9 years La Laguna Uni (Canary Academy of Sciences Award. 1996); returned to UPVEHU 1999 (Chair) where he founded and led quantum projects: QUINST group, "Quantum Science & Tech.", trailblazer in Spain; and EHU Quantum Center (director 2022-2023, 100 researchers). Supervised 16 dissertations. Guest professor or researcher at Toulouse, Geneva, Barcelona, Kingston, Göttingen, Braunschweig, Mexico, & Shanghai unis & centres incl. IMSS-Ottawa & Max Planck-Dresde. 300 articles (h=57). Head ANEP Physics & Space-Science Section 2014-2016. Deputy Editor of EPL 2017-2021 & Editor-in-Chief 2022-2023. Ikerbasque Board 2009-2013 Elected fellow of American Physical Society. 2009 "For pioneering work on quantum tunnelling time, the atom diode and its application to cooling" Among the most relevant Basque researchers (Basque Govt. Science, Tech. & Innovation Plan, 2020) & "World's Top 2% Scientists", Stanford Numerous talks & articles.

Registration fees

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