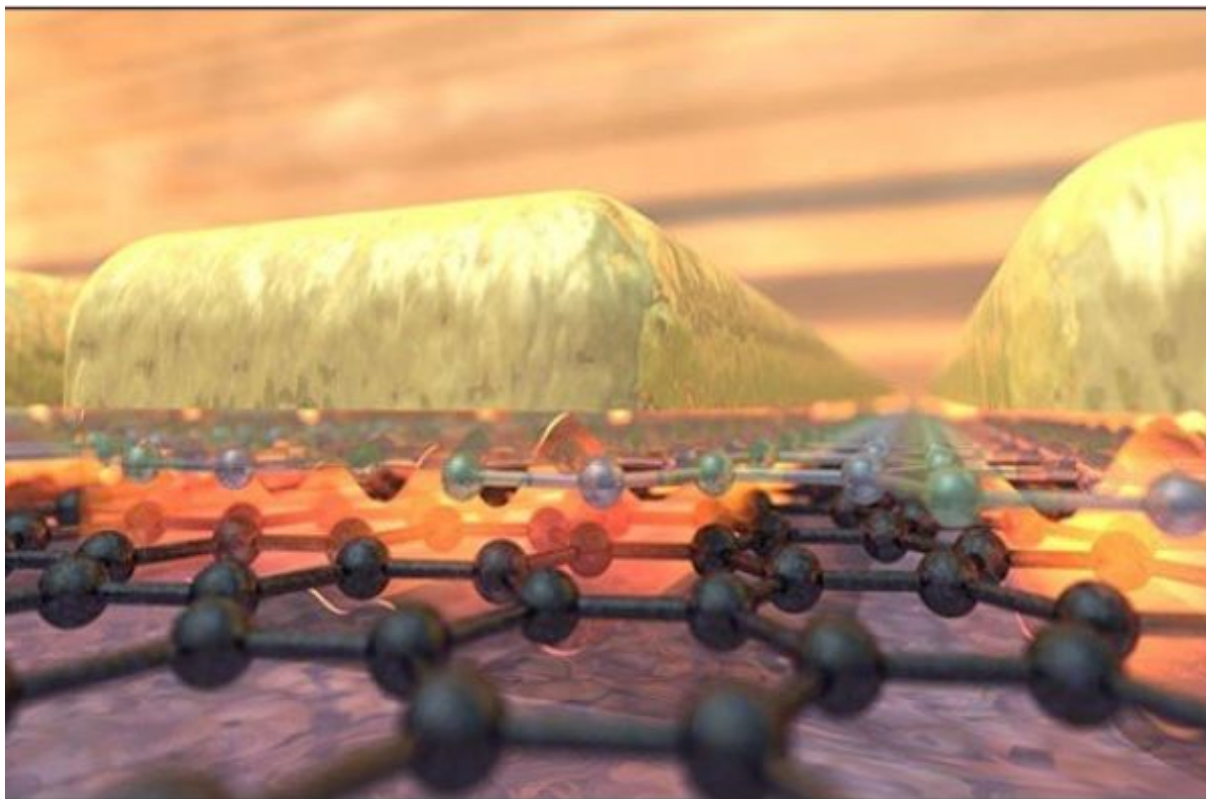




Science Prize in La Vanguardia

A study led by Prof. Frank Koppens candidate for prize organized by La Vanguardia and Fundacio Catalunya-La Pedrera.

January 28, 2019

The Grupo Godo, with the support of Fundacio Catalunya-La Pedrera, annually organizes the "Vanguard of Science" (La Vanguardia de la Ciencia) awards, aimed at giving visibility to frontier scientific research in Spain.

ICFO authored one of the eight studies that has been nominated as a finalist for the award, competing with seven other studies, chosen by an interdisciplinary scientific committee, in fields that range from physics, chemistry, and biomedicine to the social sciences. The work was led by ICREA Prof. at ICFO Frank Koppens and carried out by ICFOnians David Alcaraz, Sebastien Nanot, Itai Epstein, Dmitri Efetov, Mark Lundberg, Romain Parret, and Johann Osmond, and performed in collaboration with University of Minho (Portugal) and MIT (USA).

This is the third time in the nine-year history of this competition that Prof. Koppens has led a study nominated for this award.

By stacking (heterostructures) of 2D materials, including graphene, and making up a completely new nano-optical device, as if it were an atom-scale Lego, the team of researchers was able to reach the ultimate level of confinement of light, confining it down to a space only one atom thick in dimension. Reducing the confinement to this degree for this time opens the door for a completely new world of opto-electronic devices that are just one nanometer thick, such as ultra-small optical switches, detectors and sensors. This landmark study was published in Science in April 2018.

Over the next weeks, readers of La Vanguardia are invited to vote for the nominee who they believe represents the most important research by scientists in Spain during 2018. The prize will be awarded based on a weighted vote; 50% based on reader's opinion and 50% based on recommendations from the Scientific Advisory Committee.