NanoScience

Press Release

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Oxford Instruments announces winners of the 2017 Nicholas Kurti Science Prize



Oxford Instruments is delighted to announce Dr Francois Parmentier of Service de Physique de l'État Condensé^{1*} and Dr Erwann Bocquillon of Laboratoire Pierre Aigrain², – as the joint winners of the 2017 Nicholas Kurti Science Prize. The Nicholas Kurti Science Prize promotes and recognises the novel work of young scientists working in the fields of low temperatures and/or high magnetic fields in Europe.

Dr Francois Parmentier is recognised for his contribution in research on electronic quantum transport in nanostructures at very low temperatures; in particular on the properties of noise and quantised heat transport in mesoscopic systems.

As the joint winner, Dr Erwann Bocquillon's contribution to the field of topological insulators, in particular for evidencing the fractional Josephson effect in superconductor/topological-insulator weak-links, has been widely recognised by all. His radio-frequency measurements, performed on helical edge channels in HgTe quantum wells provide strong evidence for the expected 4π phase periodicity of Majorana-Andreev bound states.

"We are deeply honoured and delighted to share the Nicholas Kurti Prize together. We are grateful to the selection committee for the recognition of our works, and to Oxford Instruments for supporting young researchers. We also wish to warmly acknowledge the invaluable work of all our respective teammates and collaborators", commented Dr Parmentier and Bocquillon.

The winners will be formally presented with the Nicholas Kurti Science Prize trophy at the upcoming LT28 conference in Gothenburg in Sweden in August, where they will present their research work.

The Nicholas Kurti Science Prize selection committee was very pleased to recognise the winner's efforts in quantum physics. The committee consists of leading European physicists, chaired by Professor George Pickett, Lancaster University, UK.

The objective of the Nicholas Kurti Science Prize is to promote and recognise the novel work of young scientists working in the fields of low temperatures and high magnetic fields within Europe. Oxford Instruments is aware that there is a critical and often difficult stage for many such researchers between completing their PhD and gaining a permanent research position. The company has therefore been helping individuals who are producing innovative work by offering assistance both financially and through promotion of their research work, through sponsoring the Nicholas Kurti Science Prize for over 10 years, together with

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other such prizes for research in physical science in the Americas, Japan, China and India. The Nicholas Kurti Science Prize is named in honour of the late Professor Nicholas Kurti (1908-1998). Professor Kurti is known for his distinguished work in ultra-low temperature physics at the Clarendon Laboratory, University of Oxford, UK which during his career earned the name "the coldest spot on earth" as a consequence of the ground-breaking research conducted there; using adiabatic demagnetisation Professor Kurti was able to create temperatures of a millionth of a degree above absolute zero.

More information on all the Science Prizes supported by Oxford Instruments can be found at: <u>http://www.oxford-instruments.com/scienceprize</u>

The previous winners of the Nicholas Kurti Science Prize are Professor Dr Alexander Ako Khajetoorians, Dr Lapo Bogani, Professor Ronald Hanson, Professor Mathias Kläui, Professor Dr Christian Rüegg, Professor John Morton, Professor Lieven Vandersypen, Professor Kostya Novoselov, Professor Andreas Wallraff, Dr Silvano De Franceschi, Dr Isabel Guillamón and Dr Andrea Caviglia.

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Issued for and on behalf of Oxford Instruments NanoScience.

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About Oxford Instruments NanoScience

Oxford Instruments NanoScience designs, supplies and supports market-leading research tools that enable quantum technologies, new materials and device development in the physical sciences. Our tools support research down to the atomic scale through creation of high performance, cryogen free low temperature and magnetic environments, based upon our core technologies in low and ultra-low temperatures, high magnetic fields and system integration, with ever-increasing levels of experimental and measurement readiness. Oxford Instruments NanoScience is a part of the Oxford Instruments plc group.

About Oxford Instruments plc

Oxford Instruments designs, supplies and supports high-technology tools and systems with a focus on research and industrial applications. Innovation has been the driving force behind Oxford Instruments' growth and success for over 50 years, and its strategy is to effect the successful commercialisation of these ideas by bringing them to market in a timely and customer-focused fashion.

The first technology business to be spun out from Oxford University, Oxford Instruments is now a global company and is listed on the London Stock Exchange (OXIG). Its objective is to be the leading provider of new generation tools and systems for the research and industrial sectors with a focus on nanotechnology. Its key market sectors include nano-fabrication and nano-materials. The company's strategy is to expand the business into the life sciences arena, where nanotechnology and biotechnology intersect

This involves the combination of core technologies in areas such as low temperature, high magnetic field and ultra high vacuum environments; Nuclear Magnetic Resonance; X-ray, electron, laser and optical based metrology; atomic force microscopy; optical imaging; advanced growth, deposition and etching.

Oxford Instruments aims to pursue responsible development and deeper understanding of our world through science and technology. Its products, expertise, and ideas address global issues such as energy, environment, security and health.

