Café Scientifique Headingley

Monday 10th March 2025

Quantum Computing

By: Jiannis Pachos

Quantum physics fascinates scientists and the public alike. Sometimes it is like a lens through which reality is viewed more clearly. At other times we are still at odds with its fundamental properties. Nevertheless, scientists successfully already employ quantum physics for technological applications, ranging from X-rays, lasers and MRI that transformed modern medicine to semiconductors that revolutionised computers. Recently, it has been proposed to use the full power of quantum mechanics in the form of a quantum computer. Can scientists learn how to use something that defies common logic? Or do we need to understand quantum mechanics in a deeper level before any actual revolution is made in quantum technologies?

Jiannis K. Pachos *was born in Rhodes, Greece. He studied undergraduate Physics at the University of Athens and did his PhD at Durham University. Subsequently, he did postdocs at several places around the world, such as at MIT, Max Planck Institute and Imperial College. Then he obtained a Royal Society University Research Fellowship that he held at Cambridge and subsequently at the University of Leeds. Jiannis became a Professor of Theoretical Physics in 2018. His main research interests are quantum matter, geometrical and topological effects in physics and quantum computation.*

Venue: The New Headingley Club, 56 St Michaels Road, LS6 3BG
Time: Room opens 7:30pm, Talk begins promptly at 7:45pm
Entry: Donation please for room hire and expenses: £4 at the door

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