

NOBEL SYMPOSIA SERIES

How Quantum Physics Democratised Music: A Meditation on Physics and Technology

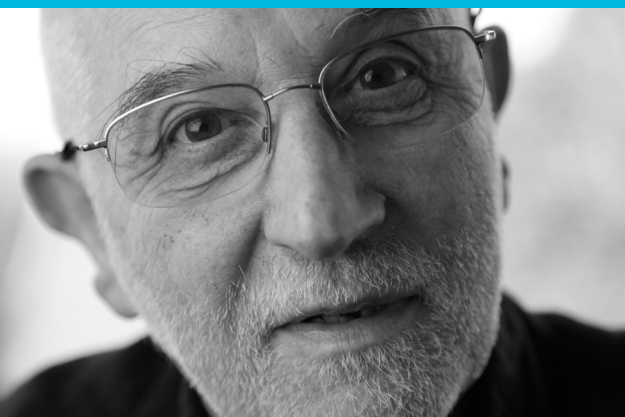
Professor Sir Michael Berry

Melville Wills Professor of Physics (Emeritus)
at Bristol University

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A STIAS INITIATIVE



Monday, 24 October | 16:30-18:00
Lecture Hall 3010, Jan Mouton Building, Stellenbosch University

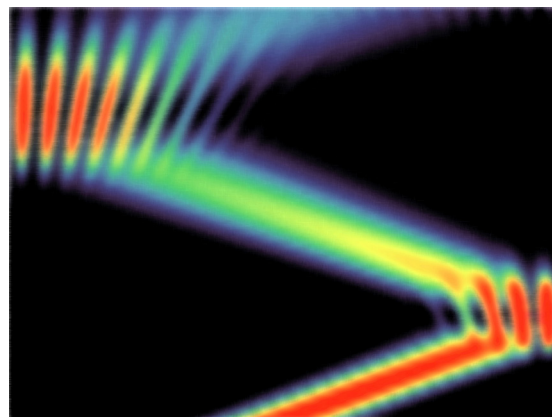


BIOGRAPHY

Professor Sir Michael Victor Berry, FRS, is the Melville Wills Professor of Physics (Emeritus) at Bristol University, where he has been for more than twice as long as he has not. As a mathematical physicist his work is in the borderlands between classical and quantum theories and ray and wave optics. He is known for the Berry phase, a phenomenon observed, for example, in quantum mechanics and optics, as well as the Berry connection and curvature. He has received a series of awards, most notably the Wolf Prize in Physics (1998) and more recently the Lorentz Medal from the Royal Netherlands Academy of Arts and Sciences (2015), the JE Moyal Medal from Macquarie University (2016), Honorary Fellowship from the University of Bristol (2017) and the Fudan-Zhongzhi Science Award (2020). He is currently a Leverhulme Emeritus Fellow at the University of Bristol (2020-2022). In 2000 he shared the Ig Nobel prize in physics with Prof Andrey Geim from the University of Nijmegen in The Netherlands for their work on the physics of flying frogs.

ABSTRACT

Connections between physics and technological invention and aspects of human life that seem far from science are both unexpected and unexpectedly common. And rather than flowing one way – from physics to gadgets – the connections form an intricate web, linking all aspects of human culture, in ways that frustrate our convenient compartmentalisations and interventions aimed at promoting technology transfer. I will discuss this theme not abstractly but with examples, ranging from music to the colour of gold, and explain how quantum technology helps me do quantum physics.



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