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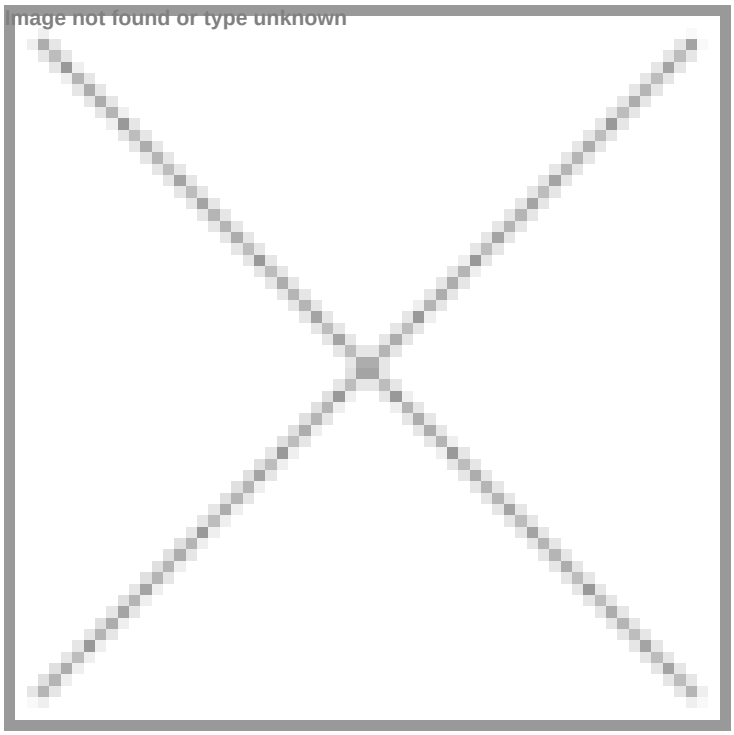
Karnataka honours 2016 Nobel Laureate Prof. Duncan Haldane at QIB 2025

02 August 2025 | News

Prof Duncan M. Haldane is the Sherman Fairchild University Professor of Physics at Princeton University



In recognition of his pioneering contributions to Quantum Science, 2016 Nobel Laureate, Prof. Duncan Haldane, Princeton University, USA, was felicitated by the government of Karnataka at the Quantum India Bengaluru (QIB) 2025, a two-day summit held in Bengaluru, on July 31 and August 1, 2025.

Prof Duncan M. Haldane is the Sherman Fairchild University Professor of Physics at Princeton University, and one of the 2016 Physics Nobel Prize Laureates. He is known for a number of seminal contributions to modern quantum condensed matter physics, including the earliest topological states in quantum magnetism, topological insulators, and contributions to the theory of the fractional quantum Hall effect. He also is a fellow of the US National academy of Sciences, and the Slovenian Academy of Science and Arts, and recipient of other awards such as the American Physical Society Buckley Prize, and the Dirac Medal of the International Centre for Theoretical Physics (ICTP).

Later during the day Prof. Duncan Haldane spoke on the topic “Modern Quantum Mechanics is 100 years old: why all the excitement today?” by sharing his experience. He noted that the laws of quantum mechanics were established during 1925-1932, and have not changed since. But just because we know the laws, we do not know all that they make possible. While the “first quantum revolution" was characterised by the Heisenberg uncertainty principle, some believe we are in a “second quantum revolution” characterised by “entanglement”. I will describe some surprise discoveries of “topological quantum matter” that may make topologically protected quantum computing” possible.