

# ICTP-SAIFR/IFT-UNESP PHYSICS DISCUSSIONS

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**VLATKO VEDRAL** (OXFORD UNIVERSITY, UK)

## QUANTUM PHYSICS IN THE MACRO DOMAIN



In this lecture, Prof. Vedral will explain the basics of witnessing entanglement and he will put this into the context of our present understanding of macroscopic quantum phenomena. He will then present the single molecule spectroscopy experiments that he and his group are currently undertaking in their laboratory to obtain a better understanding of quantum effects in complex (bio)molecules. He will also discuss how these experiments can be scaled-up, as well as how we can design artificial and hybrid biomimetic structures that capture the underlying fundamental quantum behavior of complex systems.

**VLATKO VEDRAL** is a Professor of Physics at the University of Oxford and at the National University of Singapore and is a Fellow of Wolfson College, Oxford. Prof Vedral was awarded the Royal Society Wolfson Research Merit Award in 2007.

**MORE INFORMATION:** [ictp-saifr.org/physicsdiscussions](https://ictp-saifr.org/physicsdiscussions)