

2023 Jacques Solvay International Chairs in Physics

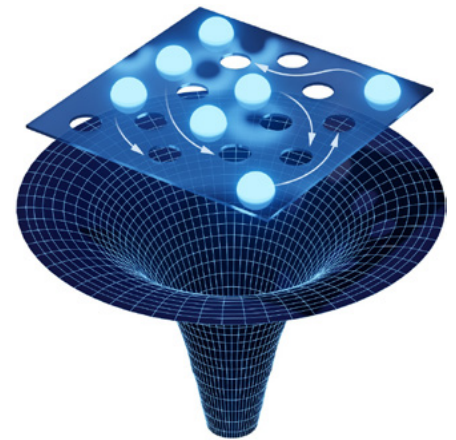


Professor Subir Sachdev
(Harvard University, USA)

Inaugural Lecture

When nature entangles millions of particles: from quantum materials to black holes

Entanglement is the strangest feature of quantum theory, which Einstein dubbed “spooky action at a distance”. Quantum entanglement can occur on a macroscopic scale with millions of electrons, leading to “strange metals” and novel superconductors which can conduct electricity without resistance even at relatively high temperatures. Remarkably, related entanglement structures also arise across the horizon of a black hole, and give rise to Hawking’s black hole entropy. I will describe a simple model of many particle quantum entanglement which has shed light on long-standing problems in these distinct physical systems.



TUESDAY 20 JUNE 2023 AT 4:00 PM

COFFEE AND TEA WILL BE SERVED AT 3:45 P.M AND DRINKS AT 5:00 P.M. IN FRONT OF THE SOLVAY ROOM

UNIVERSITÉ LIBRE DE BRUXELLES - CAMPUS PLAINE
BOULEVARD DE LA PLAINE - ACCESS 2 - 1050 BRUSSELS
BUILDING NO - 5TH FLOOR - SOLVAY ROOM

Prof. Sachdev will also give: A tutorial at ULB on 22 June - A colloquium at KUL Leuven on 23 June - A colloquium in Würzburg on 3 July - A colloquium in Leiden on 5 July