

Joint seminar of the NPI of the CAS

Prof. Pavel Cejnar, FMP CU, Prague:

Quantum entanglement and Bell inequalities – reflections of the 2022 Nobel Prize

Quantum physics predicts that parts of any composite system can be correlated in a much stronger way than classical physics allows. When two distant particles happen to be in such a quantum entangled state, phenomena that Einstein called "spooky action at a distance" can occur. In this talk we will show how thinking about quantum entanglement has evolved from its beginnings in 1935 to the present day, when (in 2022) the Nobel Prize was awarded for its experimental confirmation. We will also note the wondrous applications of quantum entanglement in procedures such as quantum teleportation and quantum computation.

The seminar will take place on Thursday, December 14, 2023 at 10:00 a.m. in the NPI conference room.