Contribution ID : **36** Type : **not specified**

Wave-particle duality and the quantum-classical boundary

Thursday, 12 August 2021 10:45 (40)

We address wave-particle duality from different perspectives. The original, qualitative Bohr's approach during the initial period of quantum mechanics was complemented by a quantitative approach that started in the late 1970's. This quantitative approach has been recently expanded to include quantum information concepts. In recent times, it has also been shown that together with coherence and entanglement, wave-particle duality may show up in a purely classical framework. All these studies should help identify which features can be classified as unique quantum resources. To this end, the quantum-classical boundary should be first clearly exhibited.

Presenter(s) : Prof. DE ZELA, Francisco (PUCP)

Session Classification : key notes