



Venerdì 11 Dicembre 2015, ore 14:30, **Aula Magna**

Francesco Giacosa
(Kielce University and Frankfurt University)

The non-exponential decay-law in Quantum Mechanics

The exponential decay law of quantum unstable particles is not exact: deviations at short and long times occur. We review the theoretical origin of these deviations as well as their experimental verification. A related concept is the quantum Zeno effect, i.e. the increase of the lifetime due to frequent observations. This peculiar quantum phenomenon has been also confirmed experimentally. Then, we study the theory of the decay law for a moving unstable particle and show some unexpected features of the latter.