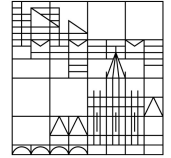


Physikalisches Kolloquium

Universität
Konstanz



Di 24.05.22
15:15 Uhr
R 513



Prof. Dr. Yuval Gefen
Weizmann Institute of Science, Rehovot

Weak Measurements: A peephole to the quantum world

Weak measurement (WM) is an alternative to von Neumann's dogma of the "collapse" of a wave function: it avoids the necessity of the latter's complete destruction, while capable of extracting partial information from the system measured. Concomitantly, measurement is associated with a back-action of the detector on the system's state. This back-action can be harnessed for the purpose of steering a quantum state into a pre-designated target state, and for quantum engineering of non-trivial states of matter.

I will also elucidate the relation of this to driving protocols of open systems, and to active error correction platforms.



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