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We draw a picture of physical systems that allows us to recognize what is this thing called “time” by requiring consistency not only with our notion of time but also with the way time enters the fundamental laws of Physics, independently of one using a classical or a quantum description. Elements of the picture are two non-interacting and yet entangled quantum systems, one of which acting as a clock, and the other one doomed to evolve. The setting is based on the so called “Page and Wootters (PaW) mechanism”, and updates, with tools from Lie-Group and large-N quantum approaches. The overall scheme is quantum, but the theoretical framework allows us to take the classical limit, either of the clock only, or of the clock and the evolving system altogether; we thus derive the Schrödinger equation in the first case, and the Hamilton equations of motion in the second one. Suggestions about possible links with general relativity and gravity are also put forward.

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Session Classification: Invited