Coordinate System of the Quantum Mechanics for a Point Particle

$\Psi : R^4 \longrightarrow C$ ····· a function

$\downarrow M_q$

$M_q(\Psi)$ ····· a history

$\forall t$; [The quantum state of the particle is

$\mathrm{state}(\Psi(\square, t))$

at the time $\mathrm{clock}(t)$.]

$\psi : R^3 \longrightarrow C$ $\xrightarrow{\text{state}}$ $\mathrm{state}(\psi)$

a function — a quantum state

$$\Psi(\square, t) : R^3 \longrightarrow C$$

$$[\Psi(\square, t)](x, y, z) = \Psi(x, y, z, t)$$