$\mathcal{S}(\mathcal{H})$
$\mathcal{H}$
$\mathcal{S}(\mathcal{H}) := \{alloperators\rho on\mathcal{H} suchthat : \rho^* = \rho, \rho \geq 0, Tr\{\rho\} = 1\}\,.$

$\rho_0 \in$
$\mathcal{S}(\mathcal{H})$
$\mathcal{H} \equiv$
C^n
$[A, B] :=$
$AB-$
BA
$\{A, B\} :=$
$AB+$
BA
$\|A\| \equiv \|A\|_\infty := \sup_{\psi \in \mathcal{H} : \|\psi\| = 1} \|A\psi\|.$

(1)
W
m
$(\Omega, \mathcal{F}, (\mathcal{F}_t), Q)$
$\mathcal{F} =$
$\mathcal{F}_\infty :=$
$\bigvee_{t \geq 0} \mathcal{F}_t$
W
$\mathcal{R}_j(t), \mathcal{L}(t)$
M_n
$n \times$
n
τ

$$\begin{matrix} \mathcal{R}_j(t)[\tau] = R_j(t)\tau + \tau R_j(t)^* \\ \mathcal{L}(t) = \mathcal{L}_0(t) + \mathcal{L}_1(t) \end{matrix},$$

$$\mathcal{L}_1(t)[\tau] = \sum_{j=1}^{m} \left(R_j(t)\tau R_j(t)^* - \frac{1}{2}\left\{R_j(t)^* R_j(t), \tau\right\} \right)$$

$$\mathcal{L}_0(t)[\tau] = -\mathrm{i}[H(t), \tau] + \sum_{j=m+1}^{d} \left(R_j(t)\tau R_j(t)^* - \frac{1}{2}\left\{R_j(t)^* R_j(t), \tau\right\} \right)$$

$R_j(t), H(t)$
$\mathcal{H} \equiv$
C^n
$H(t) =$
$H(t)^*$
$t \mapsto$
$H(t)$
$t \mapsto$
$R_j(t)$
$\forall T \in$
$(0, +\infty)$

$$\sup_{t \in [0,T]} \|H(t)\| < +\infty, \sup_{t \in [0,T]} \left\| \sum_{j=1}^{d} R_j(t)^* R_j(t) \right\| < +\infty.$$

(2)
$\sigma :$

$$\begin{cases} \sigma(t) = \mathcal{L}(t)[\sigma(t)]t + \sum_{j=1}^{m} \mathcal{R}_j(t)[\sigma(t)] W_j(t) \\ \sigma(0) = \rho_0 \in \mathcal{S}(\mathcal{H}) \end{cases},$$

(3)
m
d
$m \leq$
d
ρ_0
$(\Omega, \mathcal{F})$
$\mathcal{F}_t$
t
m
$W_j(t)$
$W_j(t)$
$R_j(t) +$
$R_j(t)^*$
t
$H(t)$
$R_j(t)$
$j =$
$m +$
$1, \ldots, d$
$R_j(t)$
$j =$
$1, \ldots, m,$
$_m aster_S DE andin_1(t),$
$m <$
$d,$
$\mathcal{L}_0(t)$
$\mathcal{R}_j(t), \mathcal{L}(t)$