$\alpha, \beta, \gamma, \cdots or a, b, c, \cdots or \sigma_0, \sigma_1, \sigma_2, \cdots).$

$\Sigma\Sigma$

$_1, , \cdots, Y_n) for Y_1, \cdots, Y_n being registers. Of course, X cannot be a self-referential register. Y_1 and Y_2 and \cdots Y_n should b$

$\Sigma = 0, 1 \Gamma = 1, \cdots, n n element of Z_1 = \Sigma \cdots, Z_n = \Sigma. W = (Z_1, \cdots, Z_n \Gamma_1, \cdots, Z_n)). I could draw a tree structure that rela$

$\Sigma then the classical state set is \Sigma_1, \cdots, Y_n) is a compound register then the classical state set of X is \Sigma = Cartesian product o$

$\Sigma p P(\Sigma)$

$a\Sigma$

$\Sigma C^{\Sigma} \Sigma R^{\Sigma}$

$\Sigma) means p R^{\Sigma} such that_{p\Sigma} P(x) = 1 // MISSING SOMETHING HERE C^{\Sigma} C^{\Sigma} u, v \Sigma :< u, v >= \Sigma_{aSigma} u(a) v(a) ||u|$

$script x = C^{\Sigma} \Sigma$

$x L(x) = L(x, x)$

$x = C^{\Sigma} \Sigma, e_a is this vector : e_a(b) = 1 if b = a or 0 if b \neq a.$

$USE CASES BEFORE HERE i.e. this basis is an orthonormal basis.$

$_A = AIN dirac notation. e_a : a \Sigma is the standard basis of.$

$^{\Sigma} and script y is C^{\Gamma}) then M_A e(a, b) =< e_b, Ae_a >=< b|A|a > for all a \Gamma and b Sigma$

$_A wil be denoted as A(a, b) to mean < e_b, Ae_a > instead of M_A(a, b).$

$Tr(A) = \Sigma_{aSigma} A(a, a)$

$^* L(,) as the unique operator such that < y, Ax >=< A^* y, x > for all x, y. This is the conjugate transpose of A :^* (b, a) = A$

$^* . p L() p L() p L() \rho L() \rho \rho L() : \rho is positive semidefinite and Tr(\rho) = 1.$