

List of Symbols

Symbol	Description
$ 0\rangle, 1\rangle$	Qubits
$ \psi\rangle$	An arbitrary Quantum State
α	State parameter
β	State parameter
\oplus	Modulo addition
$\sigma_x, \sigma_y, \sigma_z$	Pauli operators
ρ	Density operator
T_r	Trace
I	Identity operator
\vec{r}, \vec{s}	Polarization vector
T_r^A	Partial trace with respect to qubit A
c_{ij}	Complex coefficients for arbitrary quantum states
H	Hilbert Space
E	Entanglement of formation
U	Unitary operator
$ \varphi^\pm\rangle, \psi^\pm\rangle$	Bell states
λ_i	Eigen values/Schmidt coefficient
C	Concurrence
S	von-Neumann entropy
ρ^*	Complex conjugate of density matrix ρ
E_N or N	Negativity
τ	β - tangle
σ	Sigma- A measure of degree of entanglement in three qubit states
B	Bell operator
M	Mermin operator
S_v	Svetlichny operator
$I(\rho)$	Mutual information
$D_A(\rho)$	Quantum discord
$D_G(\rho)$	Geometric discord
λ_{max}	Maximum eigenvalue
E_l^i	Kraus operator for noisy channels
γ	Magnitude of decoherence
$ \Psi\rangle$	An arbitrary pure quantum state
Λ_i^{wk}	Weak measurement operator
Λ_i^{wkr}	Weak measurement reversal operator
η_i	Strength of weak measurement

η_{ri}	Strength of weak measurement reversal
$M(\rho)$	Horodecki's measure
μ	Strength of weak measurement for depolarising channel
μ_r	Strength of weak measurement reversal for depolarising channel
F_{\max}	Maximum fidelity for teleportation
f_{ent}	Singlet fraction
C_{\max}	Maximum channel capacity for dense coding
B_C	Bell-Cumulant operator
C_ρ	Correlation matrix
C_{nm}	Correlation Coefficients
Ω_0	Set of zero discord states
S_C	Modified Svetlichny operator
δ	Relative phase
ξ	Relative phase
$ \chi\rangle$	Chi State