

## Classical Information Capacities of Some Single Qubit Quantum Noisy Channels

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**Abstract:** By using the Holevo-Schumacher-Westmoreland theorem and through solving eigenvalues of states out from the quantum noisy channels directly, or with the help of the Bloch sphere representation, or Stokes parametrization representation, we investigate the classical information capacities of some well-known quantum noisy channels.

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**Key words:** classical information capacity, quantum noisy channel, Holevo-Schumacher-Westmoreland theorem

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