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Title:	Superconducting Qubit
Authors:	Pandey, Ankit Kumar (/jspui/browse?type=author&value=Pandey%2C+Ankit+Kumar)
Keywords:	Superconducting Qubit Josephson Junction
Issue Date:	Apr-2018
Publisher:	IISER Mohali
Abstract:	Superconducting qubits are solid state electrical circuits manufactured using conventional techniques. Their main building block is Josephson tunnel junction, the only non-dissipative, strongly non-linear electrical circuit element works at ultra low temperature. Here we discuss the Josephson junction and its characteristics which result in three basic electrical circuits using Josephson junction in three different combination, each of which act as a qubit i.e. Josephson junction qubit, Flux qubit, Charge qubit. Also we discuss the quantization of energy levels of each of them and how their first two energy levels are used as qubit.
URI:	<a href="http://hdl.handle.net/123456789/3636">http://hdl.handle.net/123456789/3636</a> ( <a href="http://hdl.handle.net/123456789/3636">http://hdl.handle.net/123456789/3636</a> )
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