



Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali / Thesis & Dissertation / Master of Science / MS-17

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/4187>

Title:	Measurement based quantum computation on a cluster
Authors:	Swaparjith, K. S.
Keywords:	Measurement quantum computation
Issue Date:	Apr-2022
Publisher:	IISER Mohali
Abstract:	Measurement Based Quantum Computation (MBQC) is a framework of quantum computing that utilises a highly entangled resource state called the cluster state and effects unitary transformations just by performing measurements on the cluster. This thesis aims to review certain key aspects of MBQC namely the cluster state and the measurement schemes proposed to realise universal quantum computing. Finally it delves into the field of quantum optics to show how MBQC can be implemented using photonic systems. An implicit goal is to also present these concepts in a way that an undergrad exposed to basic quantum mechanics can follow and appreciate.
URI:	http://hdl.handle.net/123456789/4187
Appears in Collections:	MS-17

Files in This Item:

File	Description	Size	Format	
Yet to obtain consent.pdf		144.56 kB	Adobe PDF	View/Open

Show full item record



Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.