Linear Optics Interferometry

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(Dated: September 21, 2016)

Contents

I. INTRODUCTION

Si-Hui can colour code things she adds like this
And Peter can do it like this
Let's add comments and questions like this

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II. MATHEMATICAL BACKGROUND

Mathematical representation for LO networks, and very basic background on quantum optics

III. OPTICAL ENCODING OF QUANTUM INFORMATION

A. Single-Photons

1. Polarisation

2. Dual-Rail

3. Time-Bins

B. Continuous-Variables

1. Coherent States

2. Squeezed States

IV. EFFICIENT CIRCUIT DECOMPOSITIONS OF LINEAR OPTICS NETWORKS

Discuss the Reck et al. decomposition

V. EXPERIMENTAL IMPLEMENTATION

A. State Preparation

1. Single-Photons

2. Bell Pairs

3. Coherent States

4. Squeezed States

B. Linear Optics Networks

1. Bulk Optics

2. Waveguides

3. Time-Bins

Discuss fibre-loop architecture