I. IMPLEMENTATION OF STATE SEPARATION

In this section we demonstrate the feasibility of experimentally testing the results of the paper by means of a linear optical experiment. We find the matrix elements of the unitary evolution operator described by Eq. (2) and Eq. (3) and use a modified version [?] of the Reck-Zeilinger algorithm to deconstruct this unitary into a sequence of beam splitters of a six-port interferometer.

Using Eq. (2) and (3)