



Correction to: How Quantum is Quantum Counterfactual Communication?

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The original version of this article contains mistake in the figures placement. The image file for Fig. 3 is being used for Fig. 4, the image file for Fig. 4 is being used for Fig. 5 and the image file for Fig. 5 is being used for Fig. 3. The correct Figs. 3, 4, 5 with figure caption is given below. The original article has been corrected.

The original article can be found online at <https://doi.org/10.1007/s10701-021-00412-5>.

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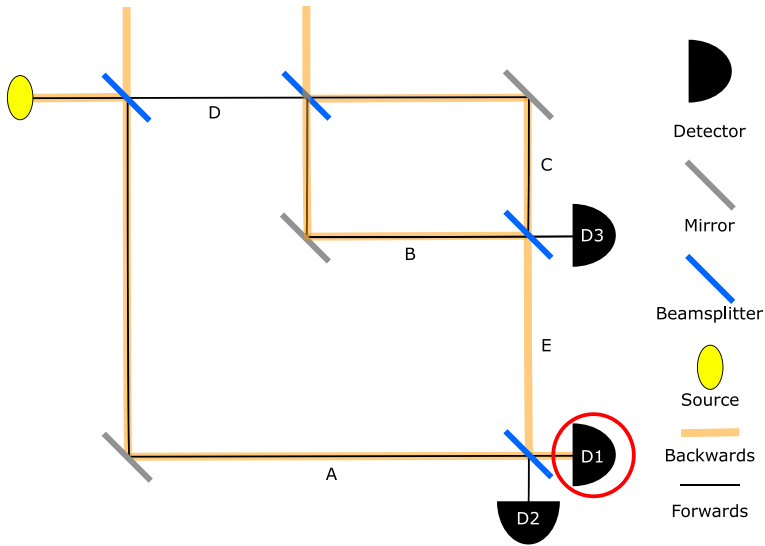


Fig. 3 The Two-State Vector formalism applied to a nested interferometer. Forwards-travelling paths are marked by thin black lines, and backwards-travelling paths by thick orange lines. Though no forward or backwards travelling path goes from the source, to Bob (along path C) and into D2, they do overlap over C, meaning there is a weak trace at Bob. This illustrates the peculiar property of the TSVF where particles can jump between regions (e.g. between the inner interferometer and the outer arm) [51]

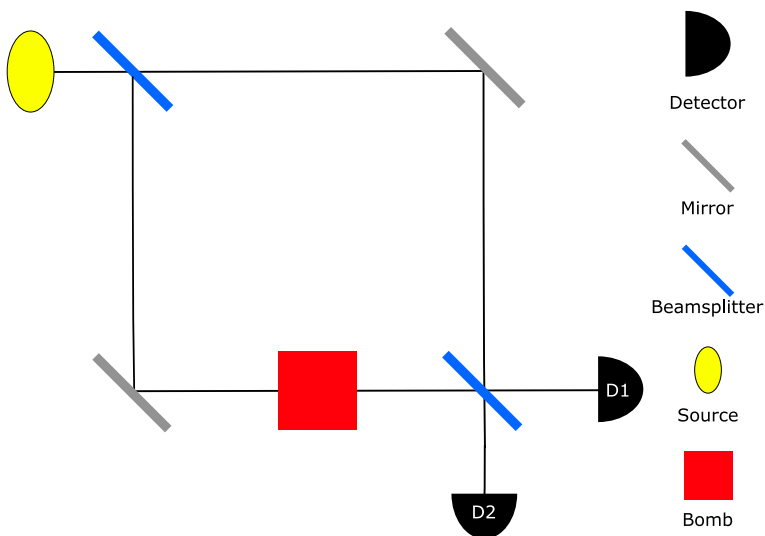


Fig. 4 The Elitzur–Vaidman Bomb Tester. A photon is emitted from the source (top-left), enters the balanced Mach-Zehnder interferometer, and is spread across both paths equally. If the bomb is faulty, the photon recombines at the second beam-splitter, and always enters D₁. If the bomb works, and is activated, it destroys the set-up. If the bomb would work, but the photon went down the bomb-free path, the photon has a 50:50 chance of going to either detector

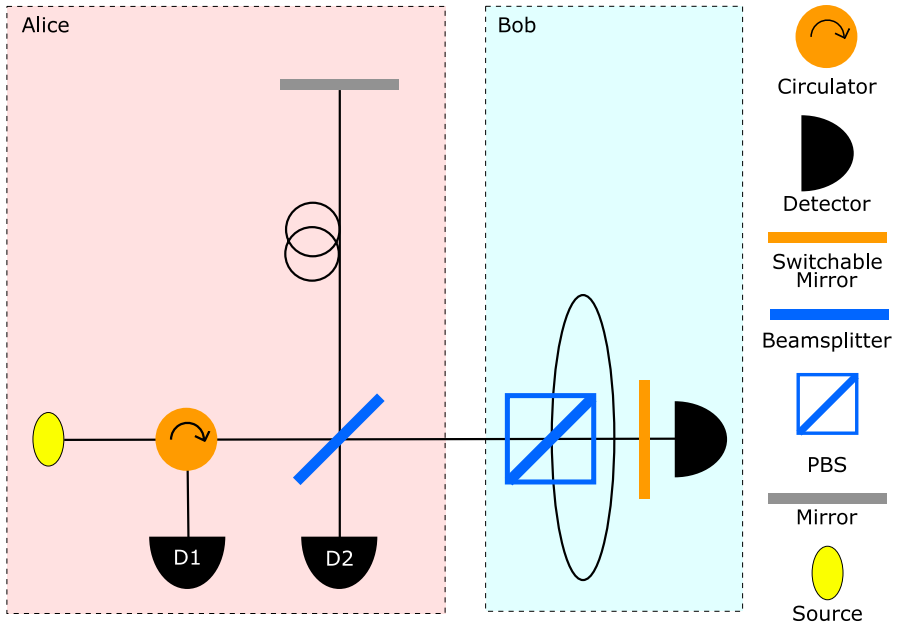


Fig. 5 Noh’s counterfactual cryptography protocol—Alice randomly polarises a photon, which passes through a beam-splitter, with one of the outputs going to Bob. Bob uses a PBS and delay to time-separate possible polarisations arriving it him, and picks one to reflect and one to absorb. If the photon is Bob’s reflect-polarisation, it reflects back, and interferes into Alice’s D_2 . However, if the photon is his absorb-polarisation, it is sent into his detector. If this clicks, the protocol is aborted; if not, the photon goes into D_1 [31]

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