

Faster than Light Communication: Quantum Entanglement

Contact

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Introduction

Faster than light data transfer - possible.

Author: I'm not a professor. I'm not a formal research scientist. I didn't verify the results with any science organization or science community, yet (6:35 PM CDT; Mobile, AL, 36608, USA; 09 19 2022). I didn't perform any lab experiments. Nevertheless, I think I solved the problem.

Opinion - Solved. The long-awaited solution to faster-than-light-communication is completed. It is accomplished. It is finished. It has, now, been solved. It is described, herein.

Standards of Duration

Example

Point A

- Standard of Duration of Observation-Measurement: 50 milliseconds

Point B

- Standard of Duration of Observation-Measurement: 200 milliseconds

Four Parts of 50s is 200 (i.e., $50 \text{ MS} * 4 = 200 \text{ MS}$; at Point A, where there is a set of 4 consecutive observations, each 50 MS in duration, then the total is 200 MS (the duration of the observation at Point B).

It takes four events of observations each at a duration of 50 milliseconds to elapse the duration of the observation at Point B of 200 milliseconds.

Standard Set Duration

- Example. At Point A - Four Observations each at durations of 50 milliseconds, equaling a total *set duration*, at Point B, of a single, simultaneous observation of 200 milliseconds
- "Standard Set Duration" (also called, standard-set-duration-variable) refers to a variable which assigned a value in a standard unit of measure of time (such as milliseconds) representing the duration of a set of observations used for comparison, for a calculation which solves for t

measurement of the change in particle orientation for coding and/or decoding as and/or character messages. The standard-set-duration-variable describes (is assigned a value which defines...) the duration of increments of observations of a set of observations of a-system-of-set-of-observations; and where said variable is used to describe a fundamental unit of measure as assigned specific value of measure by which other measures are compared; thereby, things (use machines, and/or programs) use it as a point of reference, thus making it a "standard" for the system of measurements.

- There are multiple variables which the term, "standards set duration" describes. Example. (1) Point A standard-set-duration-variable; (2) Point B standard-set-duration-variable. At least one standard set-duration-variable is assigned a value for each Point location of measurement of quantum entangled particles; and its value can be unique (different) versus every other other Point location without causing measurement errors or conclusion errors.
- The "Standard Set Duration" is the regular duration of observation of a quantum entangled particle, at a particular Point (observation) location, which duration is used as a point of reference for: (1) purposes of measurement, as well as for (2) purposes of maintaining regular, time synchronous, simultaneous observations among multiple Point (observation) locations.
- Example. The "Standard Set Duration" may be a variable quantity per set-of-machine-devices-at-a-Point-location-for-measurement-of-messages-of-faster-than-light-communication-using-quantum-entanglement.

Sum Duration

A set's *sum duration* is its sum of durations where its numerical sum value is equal to the standard set duration at the *mirrored point* location.

Mirrored Point

For purposes of this document, the definition of "mirrored point" is as follows: Where Point A is measuring entangled particles corresponding to its entangled particles at Point B, Point A is the mirrored point location of Point B, and Point B is a mirrored point location of Point A.

Standard Set of Particles

- Each particle observed is observed via the usage of a standard-set-duration, as described, above.
- Each code-message-character is deciphered via measuring a change in a particle position observed.
- Each code-message-character is deciphered via measuring a set-of-particles. That is to say, for each single character to be sent from Point B to Point A, what is used to send said single (only one-character) character message is a set-of-particles - a set of observations of a set of several particles, where each set of observations measures each particle of the set of particles one time (once; one measurement per particle of a set of particles per instance of a single set observations).

Quantity of Particles Per Measurement Per Single-Digit Code Message of Particle(s) Position-Observed

Method 1

Where change in position = Code Message Sent

- If and only if change in particle position occurs at Point A as at least one observation of a set of four observations

Where a standard-set-duration of 4-observations-at-Point-A occurs for a standard-set-of-particles

- Where a variable is the variable-per-set-of-machine-devices-for-measuring-messages-from-said-set-of-devices-as-a-machine-for-measuring-said-messages
- Where an example-machine is an example-machine-measuring-system-of-a-set-of-devices (s called, and example, because it is an example for purposes of this document, whereas, a machine measuring-system-of-devices-for-measuring-messages-at-faster-than-light-speed may otherwise use a different set of assigned quantities for variables versus the quantity-values assigned to the same variables in this document-example of such a machine-system.
- Where the variable-standard-set-of-particles is, for this example-machine is 100 particles in a set of particles. In other words, standard-set-of-particles-variable = 100, for this example.
- If Point B changes its observation-duration from 200 milliseconds to 100 milliseconds, then, it is expected (and required) that at least one particle in a set-of-particles will change its position, (and will be measured as a change in position at Point A within a set of 4 observations during the simultaneous change-in-duration-of-observation at Point B. It is, of course, expected, that the third observation (observation-3-of-4 of a set-of-4-observations) will notice the change in position of at least one particle in its set of observed particles as a reflection of the mirror of the change-in-duration-of-observation at Point B from 200 milliseconds to 100 milliseconds.

Method 2

Where change in position = Code Message Sent

- If and only if the change in the particle position-observed
- If a standard-set-of-particles-variable = 100
- If the 200 milliseconds observation duration changes to 400 milliseconds; correspondingly the change of a set of particles will not change for the duration of two (2) sets-of-observations of particles at Point A, and, thus, the observation at Point A will record that the absence of a change for 2 sets-of-observations represents a code-character of the message.

Where the probability is 50%, the odds are overcome via the measurement of a set, and, indeed, multiple sets for the same single-code-message-character where the said "sets" are sets-of-particles representing that single-code-message-character. That is to say, each code-character of a message is to be represented and measured-using-an-entire-set-of-particles versus merely using one-particle-per-code-character-of-a-message; and, in this way, the probability-problem of a measurement of a position of a particle per observation is overcome, additionally, via using a set of observations rather than merely a single observation to find a change (ambiguity, but understood).

Definitions and Explanations

"change in particle position" is the equivalent of "the change in the particle position-observed" single-code-message-character. The term, single-code-message-character is used in this document to differentiate between using a single particle to measure a character versus using an entire set of particles to measure only one character of a message. And, the measuring system, described in this document, above, always uses a set of particles to measure any one, single character of a message, and it never uses a single particle, alone (only), to measure a single character.

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