Minkovski space is obtained from information's logical properties

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Any information received by physical device can be expressed by a set of sentences of any language. This set is called *a recorder* of that device[1]. Some recorders' systems form structures like *clocks*. The following results come from the logical properties of a set of recorders.

First, all such clocks have got *the same direction*, i.e. if some event precedes other event according to one of such clocks, it is related to the others as well.

In the second place, according to this clock time is *irreversible*, i.e. there's no recorder which can receive the information about an event that has happened until this event really happens. Thus, nobody can come back in the past or receive information from the future.

In the third place, *all four axioms of the metrical space* are received from logical properties of a set of recorders. That is a set of recorders are embedded into the metrical space naturally.

In the fourth place, if this metric space is Euclidean, then the corresponding "space and time" of recorders fulfills to *the transformations of the complete Poincare group.* In this case *Special Theory of Relativity* follows the logical properties of information. If this metric space is not Euclidean then any non-linear geometry can be formulated according to space of recorders, and any variant of Theory of Relativity can be based on this space.

Thus, if you have some set of objects, dealing with information, then "time" and "space" are inevitable. And it doesn't matter whether this set is included in our world or some other worlds, which don't have a space-time structure initially. Thus, space-time structure is a consequence of logical properties of information.

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[1] G. Quznetsov, *Logical Foundation of Theoretical Physics* in series "Contemporary Fundamental Physics", Sci.Nova Publ. NY (2006) pp. 19-51