

Abstract Submitted  
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**Superluminal Particle Hypothesis FLORENTIN SMARANDACHE,**

The University of New Mexico — Based on Einstein-Podolsky-Rosen Paradox (1935), on a paper by Bohm (1951) and on Bell's Inequalities (1964) we have emitted a hypothesis (1972) that there is no speed barrier in the universe and one can construct any speed smaller or greater than the speed of light. The reason is the following:

- suppose a certain physical process produces a pair of entangled particles A and B (having opposite or complementary characteristics), which fly off into space in the opposite direction and, when they are billions of miles apart, one measures particle A; because B is the opposite, the act of measuring A instantaneously tells B what to be; therefore those instructions would somehow have to traveled between A and B faster than the speed of light; hence, one can extend the Einstein-Podolsky-Rosen paradox and Bell's inequalities and assert that the light speed is not a speed barrier in the universe;
- more, one can construct any speed, even greater than the speed of light ( $c$ ), by measuring particle A at various time intervals;
- also, the information from particles A and B is transmitted instantaneously (thus, there is no speed barrier in the universe).

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