

Abstract Submitted  
for the TSF13 Meeting of  
The American Physical Society

**Another Superluminal Thought Experiment**

FLORENTIN SMARANDACHE, University of New Mexico — Suppose we have two particles  $A$  and  $B$  that fly in the opposite direction from the fixed point  $O$ , with the speeds  $v_1$  and respectively  $v_2$  with respect to an observer that stays in the point  $O$ . Let's consider that  $v_1 + v_2 \geq c$ .

- But, an observer that travels with particle  $A$  (therefore he is at rest with particle  $A$ ) measures the speed of particle  $B$  as being  $v = v_1 + v_2 \geq c$ .

Similarly for an observer that travels with particle  $B$ : he measures the speed of particle  $A$  as also being superluminal:  $v = v_1 + v_2 \geq c$ .

- If we suppose  $v_1 = c$  and  $v_2 > 0$ , then for the observer that travels with particle  $A$  his speed with respect to observer in  $O$  is  $c$ . But, in the same time, for the observer that travels with particle  $A$  his speed with respect to particle  $B$  should be greater than  $c$ , otherwise it would result that particle  $B$  was stationary with respect to observer in  $O$ . It results that  $c + v_2 > c$  for non-null  $v_2$ , contrarily to the Special Theory of Relativity.

Florentin Smarandache  
University of New Mexico

Date submitted: 13 Aug 2013

Electronic form version 1.4