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Analysis of the past MACRO data to compare multiple muon times.

Friday, 1 June 2012 12:40 (20 minutes)

The arrival times of muons in a bundle produced by one cosmic ray interaction in the atmosphere should return a value compatible with the time resolution, while if neutrinos have larger velocity than muons some of the muons may arrive slightly earlier in a bundle of particles than others. There are strong theoretical arguments against this possibility, however this measurement could verify the OPERA hints on the possibility that neutrinos have a velocity larger than the speed of light.

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