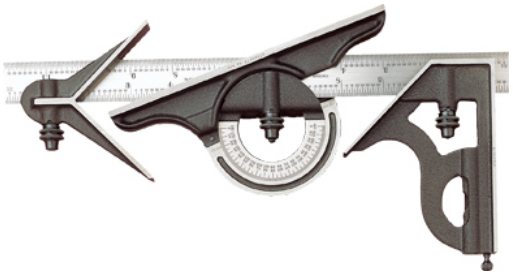

Contribution ID: **1** Type: **not specified**

Testing special relativity through decay of high energy particle

An important test of the special relativity theory consists in verifying two key predictions: the relative widths of unstable particles are independent from their Lorentz boost and their laboratory lifetimes is proportional to the boost parameter
γ. These predictions can be subject to experimental tests measuring lifetimes and branching rations of unstable particle in flight at variable γ.
This field is relatively uneexplored: only in few cases precision measurements of particle lifetimes at different γ have been performed. After a brief introduction to the theoretical framework we present some suggestions for possible future experiments.

Primary author: Dr CATTANEO, paolo walter (INFN Pavia)

Presenter: Dr CATTANEO, paolo walter (INFN Pavia)