

SOFTWARE

# P-VALUE OF 0.05 (1925-2017)

23.12.2017

Ronald Fisher dominated the science world with his 0.05 p value. A new paper of renowned scientists now claim for 0.005.

The lack of reproducibility of scientific studies has caused growing concern over the credibility of claims of new discoveries based on 'statistically significant' findings. There has been much progress toward documenting and addressing several causes of this lack of reproducibility (for example, multiple testing, P-hacking, publication bias and under-powered studies). However, we believe that a leading cause of non-reproducibility has not yet been adequately addressed: statistical standards of evidence for claiming new discoveries in many fields of science are simply too low.

Of course also 0.005 doesn't prevent from systematic errors.

According to scientists familiar with the paper, the neutrinos raced from a particle accelerator at CERN outside Geneva, where they were created, to a cavern underneath Gran Sasso in Italy, a distance of about 450 miles, about 60 nanoseconds faster than it would take a light beam. That amounts to a speed greater than light by about 0.0025 percent (2.5 parts in a hundred thousand).

which was corrected, as a GPS was not in sync...