

Fermilab CDF collaboration member adds credence to Higgs discovery rumors

June 1 2011, by Bob Yirka

(PhysOrg.com) -- Over the weekend, at a physics conference in France, Fermilab CDF collaboration member, Giovanni Punzi, [gave a presentation](#) where he showed some slides that appeared to back up the rumors that cropped up a month ago on the Internet, suggesting the team had found some evidence that might hint at the existence of a previously unknown particle; which would of course refer to the infamous Higgs Boson.

Last month, as noted [here](#) rumors were running rampant on the Internet, based on little more than a posting on a web blog, that researchers at the [Large Hadron Collider](#) (LHC) had found strong evidence to support the existence of the [Higgs Boson](#). Subsequent reports by various science journals, websites and quotes by those involved in the research, immediately quashed such speculation, allowing the researchers to continue with their work in a properly scientific manner; which of course, makes the presentation of slides by Punzi a little surprising.

Punzi doesn't claim the research group has found the Higgs, or has found proof of its existence; what he does instead is lay out the results of a series of tests that resulted in a W boson along with a couple of jets of lighter [particles](#). The results of the tests were then graphed, leaving out other known events that could lead to such a pattern, which showed an expected peak, which was easily discernible. Just next to the first peak though, was another peak, which could only be explained by a second unknown particle, at least in the context shown. Of course a graph, or even the research behind it doesn't actually prove or disprove anything, it

merely shows the results of some tests, and of course future tests might just show that there were other factors involved that influenced the results, which would of course refute the current results altogether. The point is, it's just one series of tests that may or may not lead to an actual discovery.

It seems likely that Punzi, and the research team in general, have come to the conclusion that posting results of tests as the research unfolds is the only way to mitigate rumors, or as they say in politics, to control the spin. Unlike in days of old, when research could be finished or at least concluded before papers were written and published, today ongoing research is open to speculation as any news that leaks out is subject to constant review by people both in and out of the profession, sometimes leading to false or even ridiculous claims. Hopefully, by providing information as it becomes available, as has been done here, this new approach will help to keep the rumor hounds at bay.

More information: www-cdf.fnal.gov/

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