

Possibility of new particle discovery at LHC fading

24 June 2016, by Bob Yirka



The physics community is apparently starting to lose its buzz over the possibility of the discovery of a new particle by researchers working at the CERN LHC facility near Geneva. As more data is studied, it appears more and more likely that the blip that was seen last December was simply an anomaly in the data.

The discovery of a new particle, one that has not been predicted by the Standard Model, would cause more than a stir in the high energy physics world—it would actually be a revolutionary event, setting physicists off on new paths of discovery for years to come. That is why news that a team working on the ATLAS and CMS projects at the LHC caused a stir late last year when they reported a 750 GeV diphoton "bump" in the data, one that was reported in two separate experiments.

But now, as time passes, more and more it seems likely that all the fuss will have been about nothing—researchers on both projects at the LHC have been working diligently since last month to find the bump once again, and if that happens, to verify it. But, neither team has been forthcoming regarding results thus far, leading to speculation that they have not found anything to report. And

now it does not appear that any new information will be given until at least the middle of next month when the International Conference on High Energy Physics will take place in August, in Chicago—though there have been rumors that if the LHC team does find something exciting, they could make an announcement at a special seminar next month in Geneva. The thinking here is apparently, that if no announcements are made by the earlier time frame, than there will be no need for waiting for the second, as it would be a pretty good sign that no "bumps" have been seen and thus topics of discussion will move over to more mundane themes.

In the meantime, physicists around the world will no doubt continue blogging or giving interviews regarding the possibility of a new particle and what it would mean both for those involved in the research and everyone else, if one were found.

More information: via www.math.columbia.edu/~woit/wordpress/

© 2016 Phys.org

APA citation: Possibility of new particle discovery at LHC fading (2016, June 24) retrieved 22 September 2021 from <https://phys.org/news/2016-06-possibility-particle-discovery-lhc.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.