

2012 SSI Contest



The **ELECTROWEAK**
SCALE: Unraveling the
Mysteries at the LHC

The background image shows a particle detector visualization with a central collision point and tracks. The tracks are colored in shades of green and blue, radiating outwards. The overall scene is set against a dark blue background with a grid pattern. In the bottom right corner, there are labels for particle types: U_e , U_{II} , U_T , and W .

The Question:

What is the meaning of the discovery of the Higgs boson? If it is the 'Higgs,' how would you name it?

Sample Entries:



Although I decided not to buy CERN, I own several houses nearby so I am very interested in this Higgs boson. I offered my friend Peter \$50M to sell me his copyright to the name of this new particle, so I can call it the Mitton and charge people everytime they use the name.

– Mitt Romney

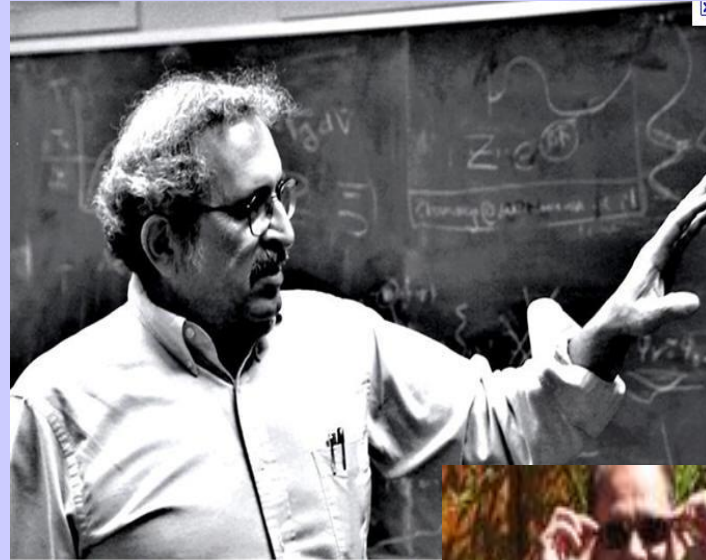
Sample Entries:



The intentional ambiguity of this question belies the existential desperation in the HEP community..... it means NOTHING.

- Anonymous

Panel of Distinguished Experts



Honorable Mention

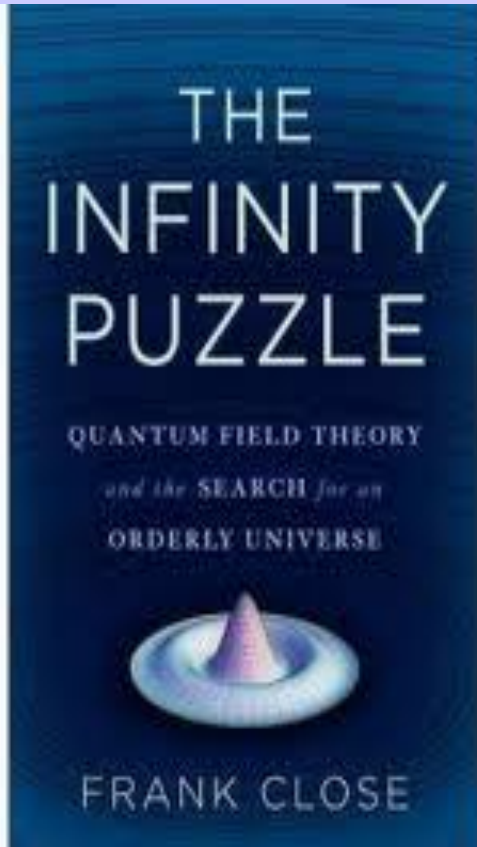
– Tanushree Basak

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....I would like to call it by a new name – “Eurekon” (short form of `Eureka boson’) which sounds more like a particle.

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The Runner Up

The Meaning:

- (a) End of era of guessing Higgs mass blindly from a few GeV to several TeV.
- (b) Starting point to test whether EWSB is reality or not.
- (c) LHC demonstrated its power to us that it is very capable to discover new particles in TeV region
- (d) Cooperate with EW precision data, it could provide us a way to calibrate/test QCD

The Name: Standard Model Higgs. This name might be redundant for us, but I think it would be helpful for public to connect this particle to the concept of Standard Model.

- Ting-Chung Huang

The Winner

The Meaning:

- (1) To regular people, nothing
- (2) To Dr. Peter Higgs, possibility of Nobel prize
- (3) To students, no need to remember the various plots according to Higgs mass
- (4) To professors, no need to teach the various plots according to Higgs mass
- (5) To model builders, no need to produce parameter space to accommodate large range of Higgs mass.

The Name: I would name it 'h' because:

- (1) It has been called "Higgs"
- (2) It has been a "Hot" issue for so long time
- (3) It has just said "Hello" to us
- (4) It must be a "Hopeful" particle to peep into future new physics

- Doojin Kim