

Re: M and the higgs

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More on this idea:

$SU(3) \times SU(2) \times U(1)$, unbroken, needs 11 dimensions (4 ST+ 7 KK), as said in the OP below.

when we completely break it (mass of W and mass of Z0 going to infinity) we are down to $SU(3) \times U(1)$.

$SU(3) \times U(1)$, as it happens, needs 9 dimensions (4 ST + 5 KK). The playground for string theory dualities happens in 9 dimensions.

So it could be interesting to consider the KK modes of each of the string theories when compactified to 9 dimensions and how do they relate to the KK modes of the 11 dimensional theory

I'd bet that some of the seemingly abstruse web of string dualities is related to the mechanism that Nature applies to break the $SU(2)$ electroweak group. (hmm, really I would bet, if someone wants to set terms and we agree ;-)

Alejandro

On 28 mayo, 04:06, "ariv...@xxxxxxxx" <Al.Riv...@xxxxxxxx> wrote:

M.theory lives in 11 dimensions, and 7 dimensions is the minimum dimension for a space to support an action of $SU(3) \times SU(2) \times U(1)$ Connes–Marcolli theory lives in 10 dimensions, and its extra 6 dimensional spectral triple contains the standard model.

M theory can descend to 10 dimensions via compactification in an interval.

Connes Marcollu contains the higgs

Is it possible to use the M–theory process of compactification to produce a Higgs field?