

Re: SU(4)×SU(2)×SU(2)

Source: <http://sci.tech-archive.net/Archive/sci.physics/2006-05/msg00338.html>

- *From:* Stolen_Humanity@xxxxxxxxxx
 - *Date:* 3 May 2006 18:43:26 -0700
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Ken S. Tucker wrote:

Ilja Schmelzer wrote:

On Sun, 30 Apr 2006 18:12:55 -0700, Stolen_Humanity wrote:

T Wake wrote:

<Stolen_Humanity@xxxxxxxxxx> wrote

It seems very few people are willing to argue the merits of respective GUTs, and spend more effort arguing with cranks, which requires very little thinking, than actually analyzing the merits of contemporary physics.

...

That's why I introduced the topic of SU(4)×SU(2)×SU(2) into this newgroups. The cranks don't even know what the hell it is. Meanwhile you've got more intelligent people who might have logical disagreements on it. However, from my perspective, SU(4)×SU(2)×SU(2) is more symmetric than SU(5). Think about it.

I propose to look at symmetry from the other end. Global symmetry is more traditional than gauge symmetry, but it is more symmetric, preferable from point of view of simplicity (and, that's why, has been recognized much earlier).

Re: $SU(4) \times SU(2) \times SU(2)$

From this point of view, GUTs are less symmetric than the SM itself.

If we ignore mass terms, we have a nice global $E(3)$ symmetry: Rotations between generations, additive shifts to the components of right-handed neutrinos. It explains much of the asymmetries of the SM: It forbids to extend $SU(3)_c$ to $SU(4)$ with leptons as forth color, forbids right-handed $SU(2)_R$ partners of $SU(2)_L$, forbids I_3 alone, outside the combination $I_3 - 1/2$.

What scares me is Ilja might be right!
Ken

Howso?

–Matthew Paul Finnigan–

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