

Review Article
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SUSY Boson and Fermion Rejoinder Most Standard Model, Periodic Table, and DNA Curiousness “Yin – Adam Model”

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ABSTRACT

NASA perceive supersymmetry, a principle and not theory. Most physicists see in supersymmetry, a hypothesized doubling of nature's elementary particles.

I tried, putting forward, Einstein quote “Science without religion is lame and religion without science is blind.” I managed to fulfill this quote for more than one decade.

I think I could stop on something stunning and helpful.

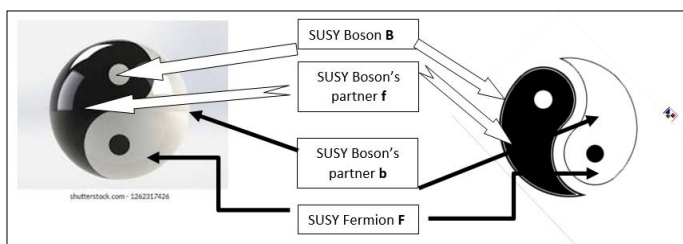
Supersymmetry theorists, propose two supersymmetric states, boson and fermion. Each state from one class should embed an associated state from the other.

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We presume that the super symmetric Boson and super symmetric Fermion along with their closed partners experienced boson-fermion duality, Ying Yang sphere and may be Adam/Partner Eve (Figure 1)


Figure 1: Ying Yang sphere

The supersymmetric “Boson”, will be called in this paper “**B**”. At the same time, his boson’s partner is sub-fermion “**f**”. Both “**B**” and his sub-fermion “**f**” will be considered the first undefined building block of supersymmetric matter.

Supersymmetric “Fermion”, will be indicated in this paper “**F**”. At the same time, his bosonic partner will be “**b**”. Both “**F**” and his sub-fermion “**b**” will be considered the first vague building blocks of supersymmetric antimatter experiencing symmetry braking. (Table 1)

Table 1: SUSY Configurations of Boson, Fermion, and their Counter Partners

Codes According study	Supersymmetric Entities	Supersymmetric Future Fate
B	Boson	Matter candidate
f	“f” fermion supersymmetric Bosonic’s partner , half spin, opposite direction	
F	Fermion	Antimatter candidate
b	“b” boson supersymmetric Fermionic’s partner, half spin, opposite direction	

First farsighted proposal in this research: Boson and Fermion duality of SUSY can be regarded the Future of Matter, Antimatter dualities.

Inflation and Big Bang

This model, takes in consideration the early universe history. We see in inflation, negative gravity, flatness, horizon, and others vital and lively functions in our journey.

Parallel to the above-mentioned functions and events, the Boson and Fermion of SUSY with their counter partners lost their supersymmetry. They reshaped themselves into the new state after inflation, forming, with others essentially, gluons and color charges, quarks and antiquarks plasma.

SUSY Bosons and Fermions Misplacing their Previous CPT Symmetries

Once upon a time, SUSY boson and fermion with their counterpart superpartners, enjoyed eternity (No time duration T), equality (No parity differentiations P), relaxation and evenness (No charge excitations C). They did not comprehend CPT symmetry, neither its violation.

Descending from supersymmetric state down to the early altering universe, **Boson** and its fermion superpartner converted into three quark’s generations. **Fermion** and its bosonic superpartner converted to three antiquarks generations. We will keep Standard Model classified generations, though the third generation should be the first and viseversa.

“Matter’s building blocks are quarks. Antimatter building blocks are antiquarks”.(Figure 2)

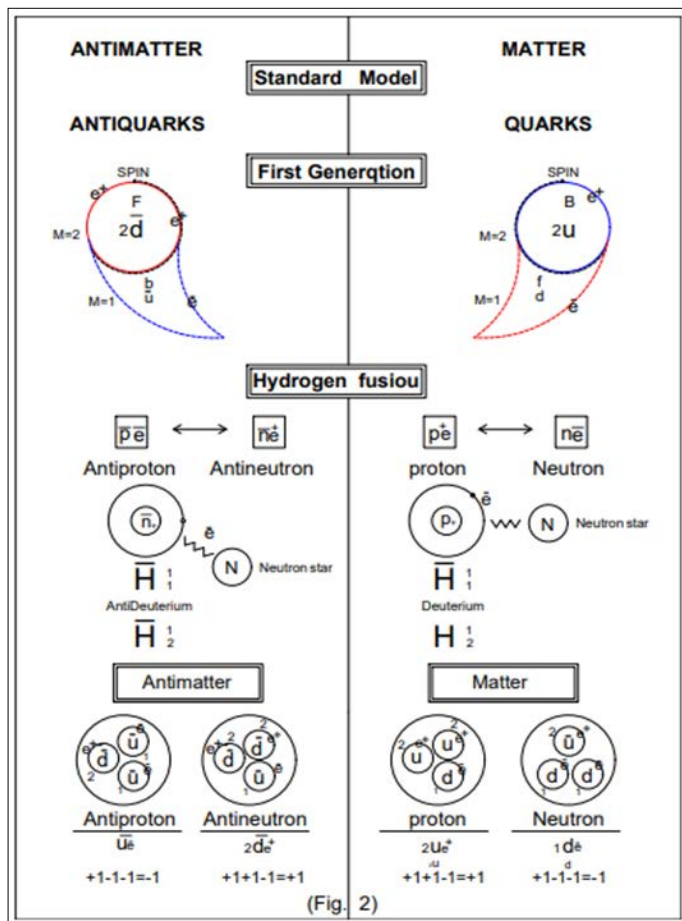


Figure 2: Boson and Fermion of SUSY became Matter Quarks and Antimatter Antiquarks

Over and done descending from supersymmetric state, the CPT of both the **Boson** and his fermionic superpartner, and **Fermion** and his bosonic superpartner, were broken. Latter each of the above-mentioned component chose to couple with one of the broken charges, positive or negative. **Boson** and **Fermion** picked positive charges “e+ “, leaving negative charges “e- “ to their attended counter superpartners **f** and **b**. They are no more boson and fermion; they became “Quarks” and “Antiquarks”. They embed different charges and angular momentums. (Table 2), (Figure 2)

Table 2: Boson and Fermion of SUSY became Quarks and Antiquarks

Antimatter		Matter	
$\overline{2F}$ Fermionian SUSY State	$\overline{1b}$ Fermionian partner SUSY State	$1f$ Bosonnian partner SUSY State	$2B$ Bosonnian SUSY State
$2\overline{Q}(b,s,d)+e^+$ Positive Electric Charge	$1\overline{Q}(t,c,u)+e^-$ Negative Electric Charge	$1Q(b,s,d)+e^-$ Negative Electric Charge	$2Q(t,c,u)+e^+$ Positive Electric Charge

Antiquarks in the Standard Model of particle physics are evidently crucial. They, as we will see latter, are existed in every visible Periodic Table element. Antiquarks play different roles in both chemical and biological interactions. Antiquarks are essential building blocks in both hadron and meson physics. Matter and antimatter in between and separately experience PC braking symmetry. (Fig. 2)

Our proposed matter antimatter model compete with the familiar one. Matter holds both positive (proton) and neutron. Antimatter also holds both positive antineutron and antiproton-electron. This model also proves that both protons and neutrons of quarks, antiprotons, and anti-neutrons of antiquarks are present in all Periodic Table atoms’ nuclei.

There is no Electric Charge Slices. Fraction 1/3 belongs to white charge, or one of the color unstable charges, red, green or yellow.

Supporting this idea, we will focus mainly on the first quarks and antiquarks generations (u,d),(u,d),which we experience in every atom of our familiar Periodic Table elements and universe ordinary matter objects.

Boson with its angular momentum 2 is signified in “u” quark, the final step of symmetry breaking, “u” gets set in e+ leaving the electron e- to its partner fermion, which is now quark d. On the other hand, “d” the suggested supersymmetric Fermion inherited intrinsic angular momentum equal two, embed the positron e+, leaving electron e- to its counter partner anti-quark “u”.

Both u and d inherited angular momentum equal two, and coupled with e+. d of down quark and anti u each inherited angular momentum equal to one and coupled with e-. (Figure 2)(Table 3)

“u” and “d” quarks of proton, and of neutron both experience three different colors. These colors represent three undefined quantum points on our 2-D universe.

“u” and “d” antiquarks of antiprotons and of antineutrons experience at the same time three different color charges, which also represent undefined quantum points on our 2-D universe. There is no anti-color. Color charge embed vector. Anti-colors correspond to the flipped mirror image of that matter vector. We propose color charges akin “Coordinates”

Fraction 1/3 relates to color charge ratio (quantum position) not electric charge. (Table 3) (Figure 3) shows where the fraction 1/3 come to quarks from.

Table 3: Quarks’ fractions belong to color charge not electric

$\overline{2} \overline{F}$	$\overline{1} \overline{B}$	1 F	2 B
$2d(G,R,B)^{e+}$	$1u(G,R,B)^{e-}$	$1d(G,R,B)^{e-}$	$2u(G,R,B)^{e+}$
$2de^+ W_G /3$	$1ue^- W_G /3$	$1de^- W_G /3$	$2ue^+ W_G /3$
$2de^+ W_R /3$	$1ue^- W_R /3$	$1de^- W_R /3$	$2ue^+ W_R /3$
$2de^+ W_B /3$	$1ue^- W_B /3$	$1de^- W_B /3$	$2ue^+ W_B /3$
Green = White(Odderon)/3, Red=White(Odderon)/3, Blue=White(Odderon)/3			

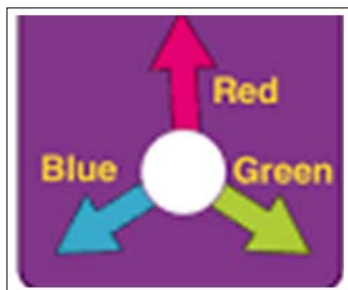


Figure 3: Fraction 1/3 relates to color Charge Ratio not Electric Charge

References

1. Housam Safadi (2018) “Physics of 21st Century, permitting religious concepts, countering physics puzzles fulfilling Einstein dream”. Amazon. <https://www.goodreads.com/book/show/53197716-physics-of-21st-century>
2. Scott Hershberger (2021) “The status of supersymmetry”. Symmetry Online Magazine. https://www.symmetrymagazine.org/article/the-status-of-supersymmetry?language_content_entity=und#:~:text=Supersymmetry%20more%20than%20doubles%20the,superpartner%E2%80%9D%20with%20many%20similar%20properties.
3. Ethan Siegle (2017) “Why Does the Proton Spin? Physics Holds a Surprising Answer”. Forbes. <https://www.forbes.com/sites/startswithabang/2017/04/19/why-does-the-proton-spin-physics-holds-a-surprising-answer/?sh=4a55ab5c2c3a>
4. Tracy Marc (2021) “Fermilab’s Muon g-2 experiment strengthen evidence of new physics”. Fermilab. <https://news.fnal.gov/2021/04/first-results-from-fermilabs-muon-g-2-experiment-strengthen-evidence-of-new-physics/>
5. Ethan Siegle (2021) “Why You Should Doubt ‘New Physics’ From The Latest Muon g-2 Results”. Forbes. <https://www.forbes.com/sites/startswithabang/2021/04/08/why-you-should-doubt-new-physics-from-the-latest-muon-g-2-results/?sh=ca92d306c4bf>

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