Predictions about the Theory, Significance and Precise Calculation of Gluino Mass from 241-Mumbers

Predictions of the most significant particle cascades at Cern's new LH-Collider from 241-Mumbers data-bank, as focused on SUSY theory and the task of calculating a precise gluino mass.

This year the Large Hadron Collider at CERN will commence operations. Itâ€™s generally expected the LHC, as the most powerful machine on earth, is capable of producing super-symmetric particles, otherwise known as [i]sparticles.[/i]

While most sparticles are confined to a lesser energy, any evidence of squarks will at least require a mass-energy equivalent to a [i][b]gluino[/i] g^ = 6.388355 TeV[/b]. Similarly, the first LHC runs may create a 'light Higgs boson,' as evidenced by CERNâ€™s electron collider before the upgrade. So while it'll be ballyhooed as discovering the 'standard model Higgs,' it's rather foolish if confirming that was the only point of building the LHC. But itâ€™s certainly vindicated by the present lack of evidence for sparticles. Likewise, the lepton collider was incapable of producing the raft of states encompassing the 'minimal supersymmetric Higgs mechanism,' the heaviest of which imparts mass to the gluino. Which assures the real interesting physics wonâ€™t occur until the accelerator reaches higher relativistic energies of focused proton-antiproton collisions.

In fact, it's probably impossible to generate not just squarks without first producing a gluino, but even the lightest sparticle: the fermi-equivalent of a Higgs boson better known as a 'neutralino,' which constitutes galactic 'WIMP dark-mass.' For what was referred to as "the real interesting physics" reduces to a chain of transformational decays that further accounts for the observed dominance of fermion matter over anti-matter in 'baryogenesis:' the creation of material baryons, precursors of protons and neutrons. In all these senses, the gluino then represents the most important, though presently misunderstood, state of the sparticle-particle spectrum.

Likewise, there's more to supersymmetry than simply regarding a sparticle as an opposing spin-state of a lighter 'fundamental particle.' For example, a quark carries a fractional charge whose nature as a fermion demands the existence of an anti-quark of opposite charge. A squark, on the other hand, is a boson of integer spin whose charge is ultimately determined by the 'first generation' of the +2/3-Up or â€“1e/3-Down 'family' to which it belongs. And while the up is the lightest quark, 'sUp' is the heaviest squark owing to an 'inverted flavor hierarchy' where the heaviest top quark corresponds to the lightest 'sTop' squark, a nuance thatâ€™s not just a function of Fermi-Bose spin-inversion. Yet more importantly, it's the bose nature of squarks that enforces the absence of an identifiable fermi-like state of antimatter: a â€“2e/3-charged squark is simply not allowed.

A neutral gluino must then strongly decay into a either a U-squark with two lighter sBottoms, or two D-squarks with, say, a sCharm. It's therefore rather easy to imagine how a fixed squark charge from gluino decay is a prerequisite for material baryogenesis. Thereâ€™s much more to this conclusion of course, but this explanation conveys its essence in rather simple language. And though a few "models" have been proposed which seem to accord with these ideas, there's little evidence any argument has effectively challenged the notoriously inadequate explanation of baryogenesis in terms other than some variant of standard (CP) "symmetry violations" from a dense meson-like quark-antiquark/gluon plasma: hardly a stable 'material state.' For theorists to acknowledge neutralino dark-mass, but not baryon-matter, as representing the "resultant purpose of SUSY" - creating a viable world corresponding to the one we live in - is beyond comprehension.

But then, more experimentally-minded physicists believe SUSY is speculation barring empirical evidence otherwise, as if their new toy wonâ€™t test that assumption soon enough. Anyway, 241mumbers.com awaits these results with no less interest than anybody else. Still, it's fair to question 1: what justifies criticizing established precedents of better mathematical theorists beyond 2: merely making unconfirmed 'claims' of calculating gluino mass. In regards to the former critique, one can only say no other â€˜authorityâ€™ provides an effective explanation for baryon-creation. For the '241-model' further predicts a precise percentage of baryons relative to the total 'critical universal mass' thatâ€™s in fine accord with observational evidence â€“ a supposedly mere "coincidence" otherwise.

Yet itâ€™s critique-2 that demands greater emphasis here as a follow-up to a preceding report about some central discoveries (http://www.free-press-release.com/news/200803/1204797561.html). In this regard, the gluino mass is one of four Sample(s) of) Data and Proofs at http://www.241mumbers.com/page2.html, as also given after the Preface of "241-Mumbers: The Definitive Data for Fundamental Physics and Cosmology." Two of these other examples effectively constitute "pudding proofs" that empirically, as well as theoretically, verify the calculation for the precise mass of the down and up quarks, as well as the strange and bottom, in the latter case also verifying the â€˜Higgs minimum vacuum mass.â€™

While gluino mass will lack full LHC-verification beyond 2008; it entails a hard proof nonetheless that's not theoretical either; but mathematical and experiential. For giving the mass-value is a means to urge serious readers to â€œeat the pudding for themselves" as the first of two 'hands-on tasks.' Which is to write three dimensionless equations as ratios to three other masses in an abbreviated particle table following an introductory chapter.

For the point of the preceding essay is that a dimensionless system of ratios between metric parameters is in itself insufficiently meaningless unless one is able to [i][b]write[/b] a [b]predictive[/b] 'purely numerical' [b]equation[/b][/i]. If three independent equations exist as dimensionless ratios to one gluino-mass, a cogent being could conclude it's the only possible answer even without experimental data to "back the claim." For in this bowl of pudding, proof is in your hands. And after the six years this material has been on the web, everyone tested has flunked; no one has supplied one equation, let alone three.

But nobody seems to want, let alone is willing to 'buy,' real, new information anyway. For everyone, including 241, is too busy trying to convince each other what qualifies as, and that they then are, a real authority. But 241's purpose is better tested as an educational forum: so announces indefinite postponement of this text's publication in favor of an

invitation to said introductory e-course in which a learner may [i]earn[/i] full free access to a raft of information unavailable elsewhere.

http://www.241mumbers.com