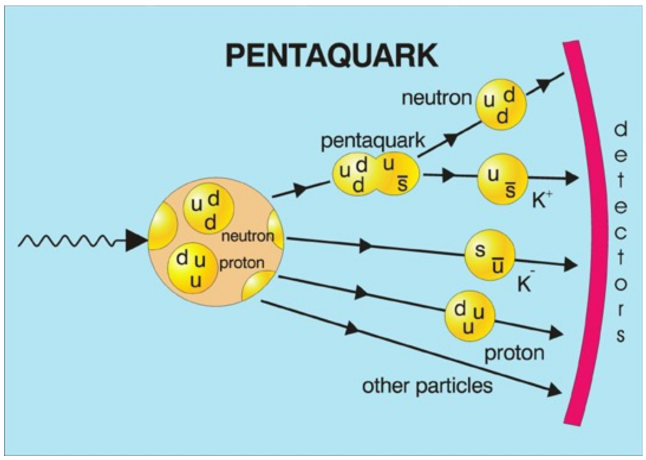
The Pentaquark

a better explanation
using spin mechanics



by Miles Mathis

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Rather than be inconvenienced again by the vagaries and inconsistencies of mainstream theory, let's look only at the data of this recent announcement. What we want to know is how energetic these particles are, both the so-called pentaquarks—which I will call 5quarks—and the other particles involved in decay. To start with, the 5quark is supposed to be a product of a bottom Lambda (the big particle pictured above). That particle has an energy of 5620 MeV. The 5quark itself was predicted to have an energy of 1530 MeV in 1997. Discoveries of the 5quark were claimed at 1530, 1522 and 1555 from 2003 to 2008. Finally, this year the LHCb claimed a discovery at 4380 and 4450. You should find it curious that the energies don't match previous energies, but they are claiming the new 5quark is so big because it is made of the large charm quarks. You can ignore that, since we will see it isn't true. Since there are no quarks, we know these particles aren't made of them.

In my previous papers on the Higgs meltdown, I showed a much simpler way of creating all the particles we are seeing in accelerators. All we have to do is use spin mechanics rather than QCD, and we can predict any of the energies they are seeing, with simple math. In short, the charge field in the accelerator is spinning up baryons to different levels, and then these spun-up particles are colliding. Depending on which particles collide, we find a variety of energies. The proton has an energy of 938. The neutron has an energy of 940. Given that, why would we see particles at 4400 MeV? Well, we start by spinning up a baryon once. Using my quantum spin equation from this seminal paper, that gives us an energy of $[1 + (8 \times 16 \times 32 \times 64 \times 128)/2^{10}] = 32,768$. Dividing by 9 and multiplying by .511 gives us 1860.5 MeV. That is the level of what they call the D meson, of course. So you see how it works. And if we spin up a neutron instead of a proton, we can bump that number up a bit, to about

1864.5.

Now, the seed particle for the 5quark is again the particle they are calling the bottom Lambda, with an energy of 5620. Since the 5quark is about 4400, that gives us 1220 left over. We are told the Kaon is also a result of this decay, and the K has an energy of about 495. We are also told the 5quark decays into a J/ψ psion, energy about 3096.

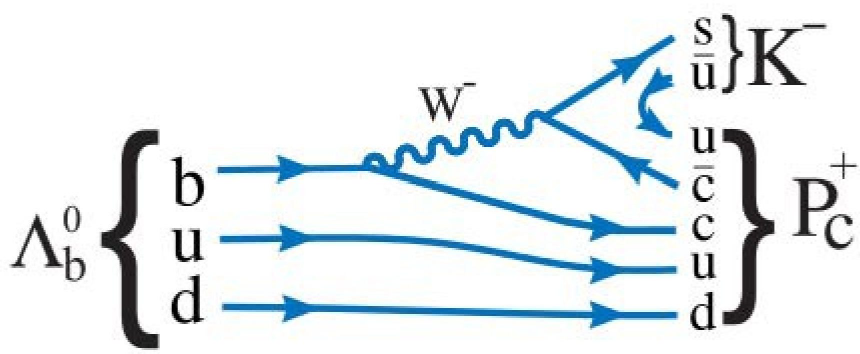

image from CERN

As you can see, the mainstream math doesn't work out, as usual. One K and one 5quark don't equal 5620. We are about 725 MeV short. Of course they try to make that up with gluons (see below), but will ignore that as a desperate fudge.

Let's start by trying to build a bottom Lambda without quarks. If we spin up a neutron to the D meson level, we get about 1870. If we then stack on another spin from collisions, we double the energy again to 3740. A different psion (ψ) is known to exist at that level. If we then collide that with a D meson, we get 5610. That is our bottom Lambda. See how easy it is? All we have done is taken the spin level above the baryon, and the spin level above that. Level +1 and level +2. We then collide them. If we get an edge hit of the two particles, the opposite spins act like cogs. One particle may be spun down to no spin, in which case the other particle will now have all the spin energy. That particle is what they are calling the bottom Lambda. It isn't made of quarks, it is made of combined spins of collision.

We can count levels in any number of ways, and I just counted up from the baryon. But we can also count up from the electron, to match my quantum spin equation. I have shown the baryon is 3 spin levels above the electron, so the D meson is level +4 and the psion is level +5. We simply collide those two particles to get the bottom Lambda.

OK, now how do we get the 5quark out of that? We don't. We only get it at the same general energy level in the accelerator. In other words, we see production of bottom Lambdas at the same charge energy as 5quarks. Why? Because the 5quark is made from a similar collision. We start with a level 5 psion at energy 3740. The 5quark is just 700 MeV above that, which is simply an eta and a pion, *or a kaon spun up by two muons.*

Watch: we take a kaon, hit it with a muon, and the muon gives its spin energy to the kaon. That's 493.7 + 105.7 = 599.4. We then hit it immediately with another muon. That takes us to 705.1. We then collide that spun-up particle with our psion, which gives us 3740 + 705.1 = 4445. That is the energy of the larger 5quark they are claiming to have found. That also explains both the kaons and J/ψ's that are seen when the 5quark "decays". If our spun-up kaon is upside down to the psion in collision, the spin don't stack, they cancel, in which case we get 3740 – 705.1 = 3035. That is why we are seeing the J/ψ at about that energy. It isn't a decay product, it is a variant creation. Only the kaons are decays products, since the same sort of upside-down hit by muons will strip the spun-up kaon back down into a regular kaon. But this means we needed both kaons and muons to start with. Although they *are* decay products, they are also field requirements. Since both are fairly small and long-lived, any accelerator will contain them. Along with photons and electrons, muons and kaons are common residents of all accelerators. They are the ever-present accelerator trash, usually ignored. I have shown you why they cannot be ignored.

This explains why we see so many mesons. Remember how Pauli complained of the ever-growing list of particles in the quantum stew, saying that if he had known what a mess quantum physics was going to be, he would have gone into another business? Well, as you have seen, there are a lot of ways to collide these particles, with the spins either stacking or stripping. And we can get small variances beyond the ones we have studied above if photons join the collision in some way. They can and do push our numbers by small amounts either way, depending on their size and spin direction. And we can easily have multiple hits as well, as we have seen with the muons. So the combinations are almost endless. What they don't tell you is that using quark theory, they can't really build all the known mesons. With only six quarks, there is no way to build the hundreds of known mesons, matching all their energies. To get around this, we are told,

The quarks which determine the quantum numbers of hadrons are called *valence quarks*; apart from these, any hadron may contain an indefinite number of virtual (or *sea*) quarks, antiquarks, and gluons which do not influence its quantum numbers.

Please read that several times and let it sink in. You have just been royally fudged again. You may have thought that particles were made of quarks, but no, the quarks in the lists are only used for *valence*. In other words, they are just the first lines of the chocolate composition. Since mass and energy aren't quantum numbers, they have to be fudged separately using virtual quarks and gluons (which are also virtual, you know).

But as you have seen, I don't need any of that. I can explain every particle with real spins and real collisions. I can do the simple math and show you where the numbers are coming from, with nothing but poolball mechanics.

To prove that again, I will show you how to build the older pentaquarks, from 2003. Remember, those 5quarks had much smaller energies, in the 1530-1550 range. That's interesting, isn't it, because that's about 600 above the baryon energy. So it should be easier to build those 5quarks. We spin up a kaon with *only one* muon, and then collide that with a proton or neutron. If we collide with a proton we get 938 + 599 = 1537. If we collide with a neutron, we get 1539. If we collide a proton with a spun-up neutral kaon or k-short, we get 1541. If we collide with a neutron instead, we get 1543.

So why don't we see other fake 5quarks hanging out in the energy range of 1490? That would be the collision of a baryon with an eta. The reason is because the eta is just four pions to start with. So you can't accelerate such a "particle." The eta is a field result, not a free particle you can accelerate. It is four pions momentarily huddling. This is why its mean lifetime is about 11 orders of magnitude shorter than the kaon or pion and 13 order of magnitude shorter than the muon. In short, the eta isn't there to be hit in the same way as the kaon and muon. In any real collision, only two pions from the eta* might be left to be hit, in which case we don't get 1490, we get 940 + 145 + 145 = 1230, which happens to be the energy of the b_1 meson. So, in a way, we *do* find a particle at that energy, but they never thought to try to call it a pentaquark.

What about the collision of a baryon and a muon? That would give us an energy of about 1045. We don't see that because the muon is spinning in y and the baryon is spinning in z. So their outer spins are orthogonal. The magnetic field will turn any muon sideways to any baryon, preventing them from spin stacking in collision. They can deflect one another, but cannot spin stack directly like that.

What about the rho, at 775? How is it created? I didn't cover that meson in my long meson paper. Well, that's 163 below the proton. So the proton is hit by a pion and spin-stripped down to 793. It then collides with a tau neutrino, which is really just four huddling electrons. The exceedingly short lifetime of the rho is determined by the equally short lifetime of the tau. In fact, the existence of the rho could be used as proof of the tau, although it currently isn't. A gamma photon can also strip the 793 particle down to an omega meson at 782.

What about the vector kaon, at 896? Well, that's a proton spun down by a pion and then spun up by a muon. I said the muon can't interact with the proton directly as a matter of spin, but once the proton has interacted with the pion, it can (in some specific circumstances). Since the pion is a baryon stripped of its z-spin, it can still interact with baryons despite not having the outer spin. This is because the magnetic field hasn't yet turned it, like the muon. Once the pion is turned, it *becomes* the muon, you see, which is why pions decay into muons. In fact, the muon that spins the baryon up may be the same pion that spun it down. The pion spins down the baryon, and both are turned 90 degrees by the hit. The turning of the pion re-arranges its spins, and the unstable spin is shed. It thereby becomes a muon. This same muon then interacts with the baryon again, spinning it back up. But since the energy of the muon is less than that of the pion it came from, the baryon cannot be spun back to its original energy. It becomes the unstable vector kaon, which then quickly decays.

I will be asked, "decays how, exactly? Given conservation of momentum or energy, the spins can't just evaporate." True, but since all these collisions are occurring in a sea of tiny charge photons (averaging in the infrared), those photons are available to carry off spin energy. They do so in many tiny increments, but still almost instantaneously.

As you have seen, I have mainly confirmed the discoveries of all these particles. What I am *not* confirming is the theory of their creation. I am not confirming QCD. For this reason, the people on the ground working with the machines should welcome me and my cleaner models and math. The engineers should be glad to find me here (and many of them are). They should ditch the top theorists and their ridiculous theories and finally embrace sense. Some of them have been talking about doing that for many years, but they didn't have anywhere else to turn. They have understood the standard model was garbage, but with no viable alternative, they have kept their talk to the watercooler. It is time for the talk to come out into the open, and to become very noisy. The revolution is now.

*Since any collision is linear, only two of four huddling pions could possibly collide once the four break up. If the eta is four huddling pions, upon break up the four will flee in four opposing directions. Two of those four directions may be in a line, but all four cannot be. Therefore, only two of the original four can collide with any incoming particle.