



Shedding a bit of light on

# Niels Bohr's Wave—Particle Complementarity

and my job getting airliners back flying, using  
the common sense aspect of

*Bohr's Wave—Particle Complementarity*

"Everything we know about frequencies and waves, in the microcosm, and everything we know about particles, in the macrocosm, **COMPLEMENTED TOGETHER** will give us the answer as to what light really is."

I knew Bohr was right and my work in both of these areas plus learning from others finally showed me the answer:

It's the **PHASE** relationship that each spinning entity has to all other spinning entities in its surroundings (frequency wise) that shows us not only what light is but what space, time, inertia and all the forces are as well.

This is a **truth** that I discovered the foundation for after reading about Ampère's long wire laws in *Scientific American*: I wrote about them as "[\*Relative Motion laws\*](#)" in 1966. But my time was taken up trouble shooting Boeing 727s and Boeing 707s then and I had little time for Ampère.

Later I saw the PHASE aspect of Ampère's laws and I've spent the intervening years developing the laws of **Phase Symmetry** from that **abovementioned truth**:

And those were rewarding years where my health was good and I learned far more than I dreamed I'd ever learn.

I enjoyed all those years — a good half century — of putting the pieces of this "*really big jigsaw puzzle*" together.

But this particular story begins with airplanes:

No one person can possibly fully understand the entire functioning of everything in a modern jet airliner.

The happiest days of my life were in Miami working for Pan American Airlines in solving problems so their jet airliners could get back into the air again flying.

I could do the job well because I had the necessary experience: I was not only a licensed pilot but a licensed airframe and powerplant mechanic and I held the top 1<sup>st</sup> class radio license with RADAR endorsement.

Not only did I know all the systems but I also knew the right specialists to get in touch with when I had problems over my head.

The reason we can't get things flying, like that, in this science world is that few specialists want to even talk to other specialists in entirely different areas:

Today, there is far too much disparity of science beliefs between the top science specialists in their various respective fields.

This is a rejection of common sense by rejecting even the concept of **Bohr's Complementarity**.

You are not going to unify the forces that way.

Once you know the microcosm is all frequencies, then you also know this is what **necessarily** builds the macrocosm as well: But we, who are built of these frequencies, detect this frequency world as solid, at a frequency somewhat lower than the electron's spin frequency.

**The forces become unified** once you see that all the forces are "DERIVED via PHASE" *exactly the same way* but at different frequencies. This enables you to use PHASE LAWS in both microcosm and macrocosm.

If you substitute PHASE LAWS for the forces you have learned about in both the microcosm and macrocosm, then

you are using **Bohr's Complementarity** concept: This gives us **Phase Symmetry**, that not only unifies the forces but *finally* also shows us exactly what space and time really are.

This may seem hard to believe but if you are really interested in science then you should take a good look at **Phase Symmetry** because, when you do, you will also find out exactly what is really going on in this entire universe.

When we do this, then what does it tell us about **Dark Matter**?

It tells us quite a bit if we look at galaxies:

In the solar system the outer planets go around slower than the inner planets, whereas **galaxies rotate as one solid wheel** or entity. (This is called a "*flat rotation rate*".)

This is one of many known violations of the present gravitational field theory.

As you read on, you will see that **Phase Symmetry** and **speed** seem to give reasons for this violation and behavioral difference of galaxy versus solar system.

Scientists, believing in the present gravitational field theory, will only see added centrifugal force or added angular momentum as galaxies get larger with their outermost stars going faster. They miss the added inertial mass and added centrifugal force if viewed via the laws of **Phase Symmetry**:

The reason for this is, in **Phase Symmetry** centrifugal force increases, not in a graphical straight line but in an asymptote curve of the speed of light because of the translational motion being adding to quarks that are already spinning close to the speed of light. While unnoticeable here on Earth, deviation on the more curved portion of the asymptote graph will definitely be noticeable at astronomical speeds:

And when you move things closer to the speed of light then you increase their mass: And inertial mass is always equal to gravitational mass, isn't it?

Compared to the Earth going around the sun at 30 kilometers per second, our sun is orbiting our galaxy's center, much faster, at about 240 kilometers per second: And stars further toward the edge of our galaxy — because of its "*flat rotation rate*" — are traveling much faster than our sun's speed around our galaxy's center.

According to present science, at these speeds, a good half of the stars in our galaxy are exceeding their escape velocities:

The outermost half of our galaxy should be flying off into space then, according to our present **gravitational field theory**.

But what is really happening instead, in these stars, is that the outside edges of quarks that are spinning in the same direction as our galaxy and in the same plane are now

moving **practically at the speed of light**, producing **inertial mass** of many times what presently is being calculated:

**Inertial mass** being equal to gravitational mass shows the reason for almost all of your "*missing mass*" or **Dark Matter**.

Thus our PHASE concept not only shows us **why** general relativity works but it also shows us even *more* than general relativity shows us.

This will finally be understood by everyone PROVIDED that we switch entirely from the field concept to the phase concept: Einstein warned us about the field concept in 1954, a year before he died. I took that warning seriously but I kept thinking that the inverse distance squared rule works with fields but not with stars that are so far away:

How does the gyro hold to the surrounding stars and keep the strength of the force as the inverse distance squared?

Also I had to figure out why light (energy) is delivered only in quantum chunks.

I thought of spin up-spin down *Cooper pairs* that impedance match with their *closest sides in phase*. This is also the way a sigma electron to electron, bond works, and then came that Eureka thought: **It was the number of bonding pairs that was falling off with the square of the distance with the**



bonding force staying the same strength no matter the distance.

That tiny portion of their closest sides in phase is a **quantum of binding energy!**

**The strength of a sigma chemical bond** has the same identical strength as the strength of an **electron in your eye bonding with an electron on a distant star.**

All these binding energy bonds have the **same strength** no matter how far the distance. Eureka!

It's only the **NUMBER** of binding pairs that fall off with the square of the distance.

This is why we got fooled into believing in field theory.

These opposite spinning electrons, spinning in the exact same plane, have a tiny portion of their closest sides **IN PHASE** (like two opposite spinning gears with their teeth meshing in phase): And the mass of that tiny portion **IN PHASE** is the binding energy of the bond between them.

This not only shows how quantum theory works but it eliminates fields entirely! So it's **PHASE** that's important, not fields!

This convinced me, more than anything, that Ampère had given me a better overall picture of things than the field

concept of Faraday and Maxwell. I'll give you 4 examples of what's wrong with field theory:

1. Faraday's minus field around each electron **prohibits** electron to electron sigma and pi bonding. Yet sigma and pi bonding not only happen but they are the basis for chemistry.

2. If gravitational field theory is correct then there should be no Dark Matter or Dark energy or galactic "*flat rotation rates*".

3. In magnetic fields we learn "opposite poles attract" but that obscures what is really going on because magnetism occurs when **electrons that have their closest sides 'IN PHASE' attract each other** and when their closest sides are 'out of phase' they repel each other.

4. And the quark strong force field is an even worse concept because it's the 'IN PHASE' relationships of spinning quarks that give us inertial mass and gravity:

I don't want a concept that only works sometimes. **I want a concept that works every time.**

But field theory is still very much with us. The field concepts of gravitational fields, electrical fields and magnetic fields have to entirely vanish before this new phase concept takes hold and when that is going to be, I simply don't know: That's the stickler.



Now comes the important part: Our Earth turns once in 24 hours in respect to the sun but it turns once in 23 hours 56 minutes and 4.09 seconds in respect to the surrounding stars. This is called a Sidereal Day: Look it up. Many times I have removed the domed cover from aircraft gyros in Pan American's gyro shop and plugged in a vertical axis gyro to a 400 cycle AC source, at noon time, and let it run until five in the afternoon when the axis of the gyro was no longer vertical but pointed to the sun which was setting in the west. A gyroscope will make one complete turn in 23 hours 56 minutes and 4.09 seconds proving that it is not really staying with the sun but it is fixing itself to the surrounding stars.

My good friend, Dr. Milo Wolff, who was on the team that got us to the moon and who proved the electron to be a scalar, standing wave also knew the importance of our surroundings. He said, "We are connected to the stars: Those stars up there are more than ornaments."

**You will never unify the fields unless you understand how our surrounding stars are involved in producing half of all the forces that present science simply discards, calling them *fictitious forces*.**

**Ernst Mach also told us surroundings were involved: Present science says, "No, these are only *fictitious forces*": Well, if gyros hold to the surrounding stars and spin is conserved — which it is — then surroundings must be**

**involved.**

This aspect is definitely a part of the Dark Matter solution because spin **is** conserved: In **Phase Symmetry** one factor in spin conservation is that the out of phase forces from the galaxy to its surroundings must equal the out of phase forces internally between all the individual stars themselves. In **Phase Symmetry** these individual stars — will have more and more inertial mass as their galaxy gains more and more angular momentum — and these stars will be gravitationally more and more attractive to each other, thus giving every galaxy its "*flat rotation rate*".

But it's not only this centrifugal force: It's also that you need the PHASE LAWS of **Phase Symmetry** to teach you exactly what space and time really are as well.

This is a frequency universe all throughout. However, we only see it as solid at ONE of those frequencies. But all these spinning, scalar, standing wave entities from quark, to electron, to star, to galaxy, to super cluster of galaxies have spin, have inertia and obey the same **Phase Symmetry** PHASE laws. Each has an entirely different space-time interval though. So both space and time in each is entirely different:

Another reason we think we need Dark Energy and Dark Matter is that the speed of light — that astronomers use to measure — is NOT a proper measuring stick throughout the

macrocosm's different spin frequencies.

These two factors have to be considered:

1. The speed of light can only be used as a measuring stick through FREE SPACE: That may look like FREE SPACE throughout the macrocosm but it definitely is not because you are measuring *through the macrocosm* **which is a material**. Going through a material **slows** the speed of light, doesn't it?

2. And you are measuring through various different space-time realms as well: This gives even more problems with your "*speed of light measuring stick*" during your astronomical measuring.

Those 2 factors above also show you the **entire reason** for the "**redshift**".

So the 2 things we entirely dispense with using PHASE, are fields and an expanding universe.

But fields and an expanding universe have been so deeply ingrained into what is supposed to be our science, that I'm afraid It will be many decades before **Phase Symmetry** is accepted.

Present science is a myriad collection of conflicting rules that sometimes give answers but never really shows **why** things work:

This PHASE concept works every time, has no conflicts and always shows **why** things work. What more could anyone ask for?

Someday, future super computers will be able to paint an even better picture of this PHASE universe that I've been extremely lucky to have seen.

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Read about "**PHASE SYMMETRY**" FREE: (these two [links](#) below)

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Daniel P. Fitzpatrick Jr. Tuesday - December, 1st, 2015.

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