# Magnetism: Mass as Resistance

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Abstract: My hypothesis on magnetism and its relationship to resistance.

## 1 General Hypothesis and Supporting Arguments

Firstly, Magnetism is created by the angular momentum (Reduced Planck Constant) of subatomic particles and is the reason for the dipole magnetic field. This angular momentum results in an accumulation of space that creates matter and the unique polarity of the magnetic fields of the individual types of matter allow for the unique configuration of subatomic particles and then atomic particles. Each of these unique configurations can be divided into multiple microstates of Magnetism that exist as different states of matter when the angular momentum of a subatomic particle is altered.

At nominal states of existence subatomic particles will maintain the distance between each other at their specific "Fine-Structure Constant" variable. As the spin of subatomic particles are put under specific types of stress they begin to take upon different properties. As the spin of a subatomic particle is "restricted" via an increase in pressure causing the densely packed subatomic particle to become extremely energetic. They will begin Mass Projection until reaching the Pauli Exclusion Principle or upon being relieved. This **mass projection** is caused by the density generated by whatever is exerting pressure - correlating the relationship of **Spin Restriction** (Quantum Impact Force) with higher temperatures and magnetism.

If we return to the nominal state of a theoretical subatomic particle, we can put the subatomic atom under another type of stress to draw another relationship between **temperature and resistance**. Superliquid is created by two isotopes of Helium (Helium-3 or Helium-4) when they are cooled to supercritical temperatures. In this state the Superliquid exists as magnetically cool intermolecular matter that's shape is not configured by the normally dominant electron matrix. This supercooled mass causes the magnetic field to no longer harmonize with the electrical field (Meissner Effect.) This effect causes electrons to instead rely on their own latent electrical fields (Cooper Pairings.)

If we return to the nominal state of another theoretical subatomic particle, we can take a Boson gas and flash freeze them to extremely low temperatures. We created another phenomenon called the Bose-Einstein Condensate, at these temperatures the wavelengths of these particles become so wide they begin to overlap, and they form a large singular atom. It would be appropriate to say that they become so **cool that they begin to be unable to resist existing apart from the other subatomic particles** around them.

By performing the Stern-Gerlach Experiment and running through different elements with S-Orbitals through the inhomogeneous magnetic field we can determine through the splitting of different elements and the distance between them. This splitting is caused by the **mass projection** of the magnet and may lead us to a **proportionality of resistance** through measuring the different elemental splits.

With all these supporting arguments magnetism is best described as different contortions of space created by angular momentum, and these contortions create mass which is energy. By observing what happens when you apply pressure to subatomic particles, we see that temperature increases create a considerably stronger magnetic field. Inversely, by flash freezing helium-4 we see that a temperature decrease causes a complete lack of resistance and the separation of electrons from the magnetic field. Logically, it would follow – resistance has a relationship with mass that we may be able to measure via the nuanced interactions of individual atomic particles resistances with an inhomogeneous magnetic field.

# 2 Glossary

To assist in understanding the language of the framework I am operating within comparisons will be drawn between different states of matter and potential microstates. Liquid and Solids for example are Electron Matrix, when mass is at temperatures above supercritical the Electrical Field is dominant, and Electrons will begin creating constructs around matter. At supercritical levels, Electrons no longer interact with the cooled unorganized wave matrix separating mass from the electrical field.

- Plasma
- o **Descriptor:** Electron Evaporation
- o Prescription: Unbound Positively and Negatively Charged Particles

• Gas

o **Descriptor:** Widely spaced Atoms

o **Prescription:** Magnetically weak intermolecular matter that rarely interacts with anything and largely exists independent of reactions.

• Liquid

o **Descriptor:** Unorganized Electron Matrix

o **Prescription:** Magnetically weak intermolecular matter that creates flowing and fluidic organization.

• Solid

o **Descriptor:** Organized Electron Matrix

o **Prescription:** Magnetically strong intermolecular matter that creates stable and organized structures.

• Superliquid

o **Descriptor:** Cool Unorganized Wave Matrix

o **Prescription:** Magnetically cooled intermolecular matter that does not interact with the electrical field and therefore electrons.

• Bose-Einstein Condensate

o Descriptor: Cool Organized Wave Transmutant

o **Prescription:** A particle that has undergone Cooled Wave Transmutation – supercritical temperatures are reached that begin to stretch the wavelengths of the condensed particles. Once the wavelengths overlap, they will transmutate into a singular atom.

#### Magnetism (Macrostate)

• Superconductivity

o **Descriptor:** Magnetically Cool Poles

o **Prescription:** A point in which supercritically low temperatures (That are not the Curie Temperature) are reached that causes the magnetic field to have no resistance toward electrons.

• **Paramagnetic** A form of magnetism in which the poles of two particles are loosely attracted to one another but do not form permanent bonds.

o Descriptor: Lightly Attractive Magnetic Poles

o Prescription: A universal property, a behavior brought the presence of un-

paired electrons.

o **Presumption:** Paramagnetism occurs at specific temperatures for individual particles.

• **Diamagnetic** A form of magnetism in which the poles of two particles repel one another and do not form any bonds.

o **Descriptor:** Repulsive Poles

o **Prescription:** A universal property, materials in which electrons are paired are diamagnetic.

o **Presumption:** Diamagnetism occurs at specific temperatures for individual particles.

• Ferromagnetism

o **Descriptor:** Magnetically Dense Pole

o **Prescription:** A point after the Curie Temperature is reached that sharp changes in magnetic coercivity occur resulting in magnets via extreme electron resistance. Made up of extremely dense materials that take a large amount of energy exerted upon them to cause mass to project from themselves until given relief (Hypothesis: The Sun ejects mass after internal mass projection)

### Definitions

• Mass Projection: The process at which the restriction of space through pressure increases the density of the electrons causing them to project mass until relieved or consumed.

• Spin Restriction: The state in which matter is projecting mass while under the force of pressure and increased electron density.

• **Supercritical Temperatures:** The scientific name for the point at which mass becomes so magnetically cool that it no longer interacts with the electrical field of the electrons. This is not the Curie temperature and should not be denoted as such.

#### Ontologies

1. Magnetism is a process of the angular momentum of subatomic particles and the resulting magnetic field becomes amplified or weakened under certain conditions – this weakening is correlative or is of resistance.

2. At supercritical temperatures the magnetic field become unharmonized and no longer interact with one another. This leads to the creation of superconductive magnetically cool intermolecular matter that produces no resistance. Electrons when unharmonized with the magnetic field will instead pair with the nearest electron within the electrical field.

3. Under superdense conditions the magnetic field becomes restricting resulting in quantum impact force – the particle will begin to project mass to maintain stability only ejecting their mass upon consumption.