II. The Geometry of Physics

Space

– First some generalised problem formulations.

A claim by synthetic judgement:
Consciousness is awareness of space!
Consciousness is space - or space is consciousness!
Consciousness is a substance for space, whose subjects are observers.
Here the prerequisite for the epistemology of realization is the observer.
The observation is **a priori** for the realization of any *entity* (something) in space.
Space is **a priori** for observation.
The observation acts according to Immanuel Kant's view of intuition is two kinds of conception:
Time and **Space** which are the a priori condition in a transcendental manner to Nature per se.

I see an *entity* (a thing) in a location in space.
When I close my eyes, I see nothing but space, as I remember that space is.
If I hear a sound from that *entity*, I hear the sounds coming from its spot in space (stereo).
When I do not see, or hear it more, I still can find the causing *entity* from memory and grip it in by my hands that I saw before I closed my eyes and as I just heard the sound from its position.
Memory is basic for realization.
Intuition is in this way also the immediate intelligible observation of memory.

An *entity* (something) happens in what we call space. How to recognize this? An **object**!
A claim: The **difference** Δ that happens is the basic characteristic of enlightenment.
Another *entity* (something) must be able to remember the **difference** Δ.
Memory is the **subject!**

According to René Descartes; space is what contains the **extension**.
A claim by synthetic judgement: No extension without a difference Δ
It is known that **extension** may have what is called more physical dimensions.
From Descartes's idea of **extension**, and the perpendicular tradition there are three spatial dimensions, *length*, *breadth*, and *depth*. These *qualities* are known back to Aristoteles.

4. The Linear Natural Space in Physics

Before we begin with the geometry of physics, we will set a description of generalised abstract mathematical rules of arithmetic, a so-called algebra, which throughout history originally is developed to calculate the geometric conditions, but which also can provide options for determining locations of *entities* in physics.
Simply expressed:

- where are things in space and
- what is their extension?