

## **Law of Time and Mathematical Axioms**

H. D. Mahar

R.G.P.G.College, Ambikapur Sarguja C.G. India  
India, (drhdmahar@gmail.com)

### **Abstract**

Time  $\Psi$  follows ten Laws, of movement, of opposition, of Energy , of Universe , of 05 tense, of infinite , of particle, of uncertainty and lastly, law of life Time law of quality .Mathematicians have views that in Philosophy of Time , observer has significance role to measure and use the time. Social Sciences apply the time commercially, in regard with time management for Industrial production. In Bioelectronics Dept. Manchester University, U K. make prospectus for ultra measurement of life energy in micro level. Deo Sanskrit University of Gayatree Peeth Haridwar applying time to increase bioelectric positive power, like physicians for exercises. Here also bioelectric power is generated in Enthalpy (heat), therefore sweat appears. ATP, DNA and NADH are three basic molecules in life Science. All these are consist of five basic elements C,H,O,N and P of Environment, respectively representing to Earth, water, sky , air and fire . Time  $\Psi$  is a measure, in which events can be ordered from the past through the present into the future, and also the measure of durations of events and the intervals between them. Time is often referred to as the fourth dimension. These properties of time are also applicable for Life time. Ten laws of Time and its relation with continuum and Energy has been studied. Time in views of Einstein, Newton and Hockings is discussed. Law of Time has a relation i. e. Inverse series with Mathematic .axiom.

### **1. Law of movement**

- Time is movement of Universe. The speed of time is in a proportion of the speed of universe. Time of any planet or any part of planet is depended upon the moving position of the planet or place. e.g. Earth's time is proportion to earth's movement and time of any country is depended on in position on earth. (a) Circular (b) Linear (C) Serpentine spin.

Mathematical Axiom 10. A set-theoretic point (*member* of a set)

In Vector algebra, an ‘element’ of a set is a representation of a coalition in intensive magnitude. A set-theoretic point (*member* of a set) is something else entirely. It is *a complete and singular composition* employed *as a unit in the process of aggregation*. It should not be called an element.

A *member* ‘belongs to’ a set; an *element* does not denote a rule of transformation from a ‘domain set’ ( $A$ ) to another set. . For example, the notation  $f:A \rightarrow B$  or  $f:A \rightarrow A$

In other words, this notation is shorthand for saying that  $f$  defines some subset of a Cartesian product and does not *directly* denote, for instance, taking

$A$  immediately back into itself (as the notation  $f:A \rightarrow A$  merely seems to imply).

We must not confuse the abbreviated notation for the logical train of concepts this notation is meant to convey.

## 2. Law of opposition

Dimension of Time  $\Psi$  and Life Time  $\Psi\epsilon$  In all dimensions of time is opposite to universe. *e.g.-*

- Linear (arrow of time): Universe (e.g. earth) came from past (through origin) ‘is’ in present and moving to future. While Time come from future is in present and went to past to be history.
- Cycle: Earth moves anti clock wise in rotational movement.
- Spin movement, Since earth and energy moves in spin ,Therefore it is assumed spinning Time.

### Axiom 9 (Axiom of Regularity)

. Non-empty set  $s$  implies  $x$  exists such that  $x$  belongs to  $s$  and every  $y$  belonging to  $x$  implies  $y$  does not belong to  $s$ .

This axiom is meant to prohibit any set  $s$  from containing itself as a member. It was introduced by von Neumann in order to deal with certain highly technical issues involving unwanted circumstances that were shown to be consistent with the other axioms. One such issue was the possibility, under the system without axiom 9, of the existence of sets that did not contain some of the ‘primary constituents’ (such as the null set) of Zermelo’s set theory. development of Euclid’s axioms and Aristotle’s ten ‘categories,’ the development of the axioms of set theory was historically an empirical and somewhat trial-and-error process. Commenting on ‘system Z’ (the modified Zermelo system, which is more or less like the one just described here), Fraenkel wrote: The rather arbitrary character of the processes which are chosen in the axioms of Z as the basis of the theory is justified by the historical development of set-theory than by logical arguments. The far-reaching aim of proving the consistency of Z, which would exclude contradictions of types as

yet unknown, is not likely to be attained in the present stage, and in a well-defined sense cannot be attained at all, in accordance with Gödel's incompleteness theorem.

### 3. Law of Energy

Time is energy to remain irreversible movement in Continuum is mathematical Triangle (pyramid) of Energy, Time, Universe (Ibe, Tinia and Uni or Vishnu, Mahesh, Brahma)

#### Axiom 8 (Axiom of Choice)

If ' $a$ ' implies non-empty set ' $x$ ' is a function defined for every  $a$  belonging to ' $s$ ' then there is another function ' $f(a)$ ' for  $a$  belonging to ' $s$ ' and ' $f(a)$ ' belongs to ' $x$ '.

What this axiom tries to say is we can select one member from every non-empty subset of ' $s$ ' and use our selections to define 'a set  $x$ '. The axiom of choice differs from axiom 6 in that the 'choice function'  $f$ , is not given any specified property that defines the 'choices'. The axiom lets us do an arbitrary 'choosing' even though we have no property that would define the choice function between ' $a$ ', ' $x$ ' and ' $s$ '.

### 4. Law of Universal

Time is continuous in continuum behaves equal for all in continuum. *E.g. 7 a.m.* for one individual at any place, just same for all men without any discriminations *in any space* Universe

There is a "Pot theory" that universe is a oval pot. In which time energy and many continuum (spaces and galaxies) are present

*Kalashasya mukhe Wisnu, Kanthe Rudra samasita Kukhao tu sarwe sapta Deepa Wasundhara Moole tatra sthito Brahma!!! (Rom rom prati lage, koti koti brahmand.)*

Above four line are for four tense depicted from Veda and Not agree with this, or rejection, or absence of pot (= Kalash) is A-tense. The wall pot is Vast Universe. And elliptical as pitcher =kalash. In bracted hindi Epic says many galaxies in each part of Universes body

#### Axiom 7 (Axiom of the Power Set)

For any set  $x$  the set  $y$  consisting of all the subsets of  $x$  exists. The set of all subsets of  $x$  is called the 'power set' of  $x$ . Although  $y$  is defined by a property, namely that its members are subsets of  $x$ , this case is not covered by axiom 6 because the property is not defined as the range of a function. For example, axiom 6b specified that the function had to be unary (a function of one member of  $x$ ), whereas in axiom 7 the property 'is a subset' is not a unary function. Axiom 7 is another construction axiom since  $y$  will have more members in it than did  $x$  if the number of members in  $x$  is finite.

## 5. Law of 05 tense

A great tense is a space time. It controls over first three tenses, simply as video recording and fore casting. Astrology and palmistry fore cast future in present. Science says, time changes in space, even, in countries and galaxies.

A –tense is defined that before birth of the space or universe, since time is space related. According to Newton’s theorem of “space time relativity”. If there was, no space, no time.

*I. e.* before origin of Higgs Boson, there was no time. Same, after degeneration of Universe, no space, no tense *i.e.* A-tense.

Metaphysically and socially may be, simplified, if officer is happy, signs in back dates. If unhappy, says, sorry! I have no time. *i.e.* ‘A tense’ But this run off from duty for a greater duty is whether for metaphysical exercises for priest or in surgical science or music. There fore a-tense is supreme time. One can criticize that this theorem of five tense is pure hypothetical. Great tense solves it. Past and future days are in this week. Present minute become past in a minute. So that, theory of three tense is depended on unit of time to be any tense Since death is definite with fixed time called “Programmed Cell Death (PCD)” Therefore, present society is future century’s imp society. Since time is infinite. So that great tense is mathematically sum of past, present and future and absence of time is ‘a-tense’

### Axiom 6 (Axiom of Replacement)

This is not actually an axiom but rather a schema for an unlimited bundle of axioms. Even professional mathematicians find it difficult to re-state the formal expression in English. Roughly, the axiom says “any ‘reasonable’ property that can be stated in formal language can be used to define the set y of things having the stated property.”

## 6. Law of infinite

Time runs from infinite future to near future to present..... to past to infinite past .... (start of Universe , birth of Brahma)

$$\Psi_{fi} \dots \rightarrow \Psi_f \dots \rightarrow \Psi_{pr} \dots \Psi_{pa} \rightarrow \dots \rightarrow \Psi_{pi}$$

$$\Rightarrow \Psi = \infty = | \Psi_{fi} \rightarrow \Psi_{pi} \dots |$$

If we assume fifth law of time, we have to add great time (e.g. dreamed time) and Atence (hypothesis of absence of time, *i.e.* before and after the origin of Universe and Time

$$\Rightarrow \Psi_{\infty} = \Psi_f + \Psi_{pr} + \Psi_{pa} + \Psi_g + \Psi_a$$

$$\therefore \text{Universe } U = \infty \Leftrightarrow \text{Time } \Psi = \infty \Leftrightarrow \text{Energy } E = \infty$$

$$\therefore \infty = \forall \{U, \Psi, E\}$$

$$:= \& \gg \{\text{volume, life time } \Psi \epsilon, \text{ life energy}\}$$

Universe= space + vacuum + volume+ super dense black holes + inter galactic spaces + all galaxies + Milky way's + earth including Bermuda, + Jatinga , where ships dip and birds suicide).

### **Axiom 5 (Axiom of Infinity)**

There is a set  $x$  that contains the empty set and that is such that if any  $y$  belongs to  $x$  then the union of  $y$  and  $\{y\}$  also belongs to  $x$ . This one is a very strange axiom when expressed in its formal language. A

## **7. Law of particle**

Mathematical definition of line  $L = \sum \infty p \dots \rightarrow$  in a series . Line = Sigma infinite points in a series (Points == Particle)

Corpuscular Mathematical assumption in linear dimension of Time

$\Psi \infty \dots \rightarrow \Psi \dots \rightarrow \Psi \infty = \Psi \prod$  (God Particle) ( *e.g. Photon , thermion Higgs Boson ,Positron, Magnetron, Cosmo*)

Smallest times are Femto second =  $1 \times 10^{-15}$  S , and Zeta second =  $1 \times 10^{-25}$  S

(While, greatest time =Era = 4 Apouches ) geologists stated , Pleistocene, Eocene, Mesozoic Jurassic and Modern.

### **Axiom 4 (Axiom of the Sum Set or Union)**

If  $x$  is a set of sets, the union of all its members is a set. This one might make us blink a bit. Suppose the set  $x$  is given by  $\{A, B\}$ . Suppose further that  $A$  is a set given as  $\{a, b, c\}$  and  $B$  is a set given as  $\{d, e, f\}$ . The axiom says that  $\{a, b, c, d, e, f\}$  is also a set. Axiom 4 is another construction axiom. Fraenkel used to describe the operation  $y \cup \{y\}$  is the following. The empty set  $\emptyset$  is a member of  $x$ .

Therefore  $\emptyset \cup \{\emptyset\} = \{\emptyset, \{\emptyset\}\}$  is a member of  $x$ .

Therefore  $\{\emptyset, \{\emptyset\}, \{\emptyset, \{\emptyset\}\}\}$  is a member of  $x$ .

## **8. Law of uncertainty**

The velocity of time is constant on any planet and similar for all living and nonliving at any place. but except for velocity , Time follows the law of uncertainty .e.g.- present sun rise time may differ at other continent.

Past Time: listened, read, video, images, evidences, history, memory, tradition, rituals, etc are records of past time. These all are based on faith and believes. Might be fluctuating with reality.

Present time: Since time is an action (move of planet around it's star) therefore present time differs place to place on one planet. Therefore there is another scales of time e.g. Greenwich, Indian Standard Time, etc. Time (action) at a place is also no certain e.g. power cut, earth quake , volcano, accidents, death, rain, gifts, prizes, etc. are uncertain.

Future time: Future time is a result of past plus present. Even though future time is uncertain sciences like Mesmerism, Astrology, Horoscopy, Metaphysics, Palmistry, etc are developed to know the future. But yet future is uncertain.

Great time: Dream is supposed to be of Great time . It's uncertain and being truth, it is bethought evidence near to false.

A tense: Hypothesis of 'atense' (No time) is supposed to be at absence of universe, so time absents before Universe is made by big bang and after the end of Universe. So that atense (no-time) is totally hypothetical and uncertain.

### **Axiom 3 (Axiom of Unordered Pairs)**

If  $x$  and  $y$  are sets then the set of pairs  $(x, y)$  or the set of pairs  $(y, x)$  exists. i.e. the set of all ordered pairs of members of  $A$  and members of  $B$ ,  $A \times B$ .

## **9. Law of life Time**

$\Psi_{\epsilon} = \text{Life time} = \Psi \rightarrow N \rightarrow M \rightarrow \Psi$

$\Psi_{\epsilon} = \Psi_n \rightarrow \Psi_{\mu} = \Psi_{\pi}$  ( Here  $\Psi_n = \text{Birth time}$ ,  $\Psi_n = \text{Mortality time}$  &  $\Psi_{\pi} = \text{Life particle}$

### **Axiom 2 (Axiom of the Null Set)**

For example, if  $C$  is the set of all cattle in Wyoming and  $D$  is the set of living dodos, we could not say  $C \cup D = C$ <sup>8</sup> if we were not permitted to use the idea of the empty set.

One theorem that comes out of the ZFS system is that the empty set (symbolize it as  $\emptyset$ ) is *ex officio* a member of every other set. It thus plays the<sup>8</sup> This is read, "The union of  $C$  and  $D$  is  $C$ " or  $C \cap D = \emptyset$ .

## **10 Law of quality**

Morning evening midnight / good / bad time Proportion

$\Psi_{\epsilon} \dots \alpha$  Good time = + E praise/ smiles =  $\alpha$  1/Bad time = -e bad news / Hesitation

First axiom of Mathematics Differential equation, (i.e. not equal to)

Fall of the Axiom =  $ABA + B < 180$

### **Axiom 1 (Axiom of Extensionality)**

Two sets are equal if and only if they have the same members. Fraenkel remarked, The axiomatization of set-theory renounces a *definition* of the concept of set and of the relation between a set  $s$  and its elements. The latter, a dyadic relation (or predicate) is denoted by  $\in$ ;  $x \in s$  reads “ $x$  is contained in, is an element of, belongs to, the set  $s$ ” . . . and its negation is  $x \notin s$ .  $\in$  enters as an (undefined) *primitive* relation, *the membership relation* [BERN: 4-5].

Axiom 1 is written *formally* as

$$\forall x, y (\forall z (z \in x \rightarrow z \in y) \rightarrow x = y)$$

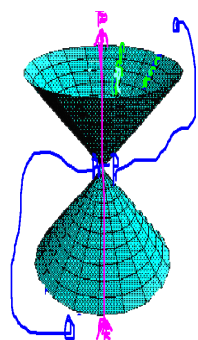
Fall of the Axiom =  $ABA + B < 180$

$$G_{\mu\nu} + \Lambda g_{\mu\nu} = \frac{8\pi G}{c^4} T_{\mu\nu}$$

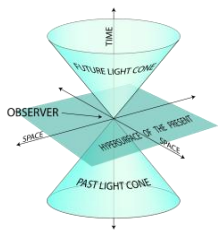


*Einstein in 1905*

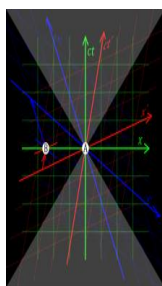
This is the Formula of time by Einstein and there are some models of time given below



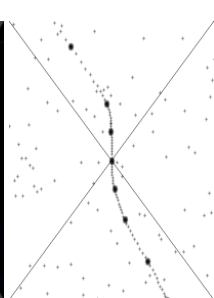
Model 1



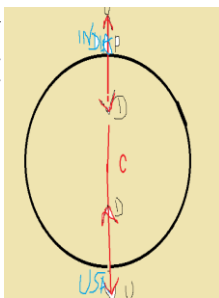
Model 2



Model-3



Model=4



Model5

## References

1. Maziars, Edward A. "Problems in the Philosophy of Mathematics (Book Review)". *Philosophy of Science* 36 (3): 325.. For example, when the term was probably first introduced in Ferrier's *Institutes of Metaphysic: The Theory of Knowing and Being*, p. 46 1969.
2. Tegmark, Max "The Mathematical Universe". *Foundations of Physics* 38 (2): 101–150. arXiv:0704.0646. Bibcode:2008FoPh...38..101T. doi:10.1007/s10701-007. February 2008
3. Carnap, Rudolf "Die logizistische Grundlegung der Mathematik", *Erkenntnis* 2, 91-121. Republished, "The Logician Foundations of Mathematics", E. Putnam and G.J. Massey (trans.), in Benacerraf and Putnam. Reprinted, pp. 41–52 in Benacerraf and Putnam 1931.

4. 4. Brown, James. *Philosophy of Mathematics*. New York: Routledge. ISBN 978-0-415-96047-2. 2008
5. H. D. Mahar \*Geography of 'Jhagarakhand' and measurement of the height of Siddh Baba Hill' between Jhagarakhand and Manendragarh, Korea, C.G. India. Conveyed To AMSE France
6. Mahar , H.D :Agrawal A.M. :and Chhalotra G.P. "Phytoelectronic modeling of thigmotropic movement in *Mimosa pudica*" Measurement, modeling & control AMSE Journal Tassin France Vol.59,No. 2 Page 27-34. 1999
7. H.D Mahar, Chhalotra V., Agrawal A.M. and Chhalotra G.P. "Phytoelectric simulation of air pollution measuring instrument" Measurement, modeling & control AMSE Journal Tassin France Vol.60,No. 2 Page 50-61 1999
8. Mahar H.D, Agrawal A.M. "Phytoelectric simulation of transpiration characteristics" Measurement, modeling & control AMSE Journal Tassin France Vol.62No.3 Page 27-40, 2001
9. H.D Mahar, 'Modeling & simulation of seismic prediction using CRO cardiograph of plants" International Conference MS' 04 Neurosciences & sensory system laboratory, Claude - Bernard University of Lyon France . Additional Proc. PP 36-40 ( July, 01 - 03, 2004
10. H.D Mahar, A.M. Agrawal and G.P. Chhalotra "Phytoelectronic modeling of thigmotropic movement in *Mimosa pudica*" Measurement, modeling & control AMSE Journal Tassin France Vol.59,No. 2 Page 27-34. 1999
11. H.D Mahar , V.Chhalotra, A.M. Agrawal and G.P. Chhalotra "Phytoelectric simulation of air pollution measuring instrument" Measurement, modeling & control AMSE Journal Tassin France Vol.60,No. 2 Page 50-61 1999
12. H.D Mahar , A.M. Agrawal "Phytoelectric simulation of transpiration characteristics" Measurement modeling & control AMSE Journal Tassin France Vol.62No.3 Page 27-40, 2001
13. H.D Mahar Mars meteorite analog of Tin Tina stone at Darima Ambikapur, AMSE France *JOURNALS –2015-Series: Modelling C; Vol. 76; N° 1; pp 46-58 .2015*