



Unique Natural Theory of Sets (UNTOS) Vs Alternative Natural Theory of Sets (ANTOS): A Vortex Communication & Cutting-edge Contribution of Nature's University

Rojukurthi Sudhakar Rao

*M. Phil (Africa Area Studies), Centre for African Studies, University of Mumbai, Mumbai, Western India,
Currently, PhD-Preparatory Research-Learner-Explorer & Earlier, Pre-PhD-Applied Mathematics, Andhra University.
Formerly, Ex-CSIR (Council of Scientific and Industrial Research) Junior Research Fellow with MSc (Applied Science)
E-mail: 1955sudhakar@gmail.com*

ABSTRACT

God created natural numbers was stated by mathematician Leopold Kronecker amidst contesting theologians' rivalry during 19th century days of Dalton's Atomic model. Mathematical number theory promoted modern knowledge(s) leading to pure & applied senses in metaphysics-afflicted human-knowledge of scientific theology from theological Nature. Finding Natural phenomena predominantly provocative, intellectuals coordinated match-fixing toilsome functionalities like quantity vs quality, areas, angles, forces, velocities, physical /chemical/thermal energies, rate of change, solar configurations and reciprocal calculus therein. Instrumental limit-tends-to bifurcated, trifurcated and quadrifurcated Nature's complex degreed/patterned definitional phenomenon via zero-one-infinity's proportional dimensionalities. Mathematical particularism emerged with accommodationist axioms dismissing cluelessness to formulizing Nature's power and philosophism subsequently.

Mathematicians -Richard Courant, Herbert Robbins & Ian Stewart belittled Mathematics as to what it is in 1996 AD, post-Einstein's mass-energy-equivalence and manned lunar missions whereas such Nature-cum-techno-cum-mathematical virtual affairs westernized human affiliation factor to Axiom's Math, Western Thought & Odium Theologicum. This innocence apart, they lamented over lack of distinguished choice of axioms leading to Unique Natural Theory of Sets (UNTOS) against available Alternative Natural Theory of Sets (ANTOS) ever since Nature began.

My Paper explores ANTOS recalling Nature's Attributes, Universality & unforged Natural Numbers coupled with Nature's forces/environmentalism/Earth/resources/Cosmatorium which are all expanding/contracting self-reliabilities in continuum while their unions/intersections in deep patterns & degreed positions keep happening in Nature. The ANTOS which is variably Nature-funded and invariably non-outsourcing fixed infinite-setting in abstract summation falls beyond perceivable human interpolations/extrapolations or Math's liberatory grasps & grips through axioms which cannot vanquish realism of Nature's University similar to Natural Numbers.

Keywords: Functionalities, Infinity, Mathematician, Nature, Numbers, Philosophy, Sets, Theory, Zero

1. EVERY RESEARCH HAS THE BEGINNING OF UNIQUE INDEX



2. INTRODUCTION

The Nature and its different phenomena from several intellectual, ethnic, culturally diverse and multi-cultural-material angles have been considered for the objectives of pure research. The modern educated will never know that logical gaps have indeed assumed structural proportions on which defiant human Civilizations differently built-up projecting themselves invading the Earth in the cause of promoting human mind’s superiority. Logical gaps turned out to be diplomatic transformers in the arena of victorious perfection fountained out from human mind to ending up as the Philosophy of Mankind’s Knowledgeable existence, no matter come what may be the civilizational aggregate and net credibility factors of fluctuating highs and lows from time to time in the wheeling flow of the centuries in Space and Time.

Explaining what it conveys to mean by mathematics, for mathematics and of mathematics, Richard Courant, Herbert Robbins and Ian Stewart in 1996 (AD) exercised their right and might in application of the words ‘God’ & ‘Nature’ & ‘Natural’ in as much as possible, say, 78 times to arrive at impressive mathematical sense in essence for an area of differentiable and interactable knowledge-intensive mathematical disclosures throughout the trio’s authorship in What is Mathematics? As per the opening thematic picture in this Paper’s abstract while looking into the second para, they pinpointed to highlight that there is no distinguished choice of axioms that lead to Natural Theory of Sets. Frankly, they felt so Post-Albert Einstein’s proclamation of the mass-energy-equivalence in-built Nature & Apollo Moon landing mission of inherent man-made precisions.

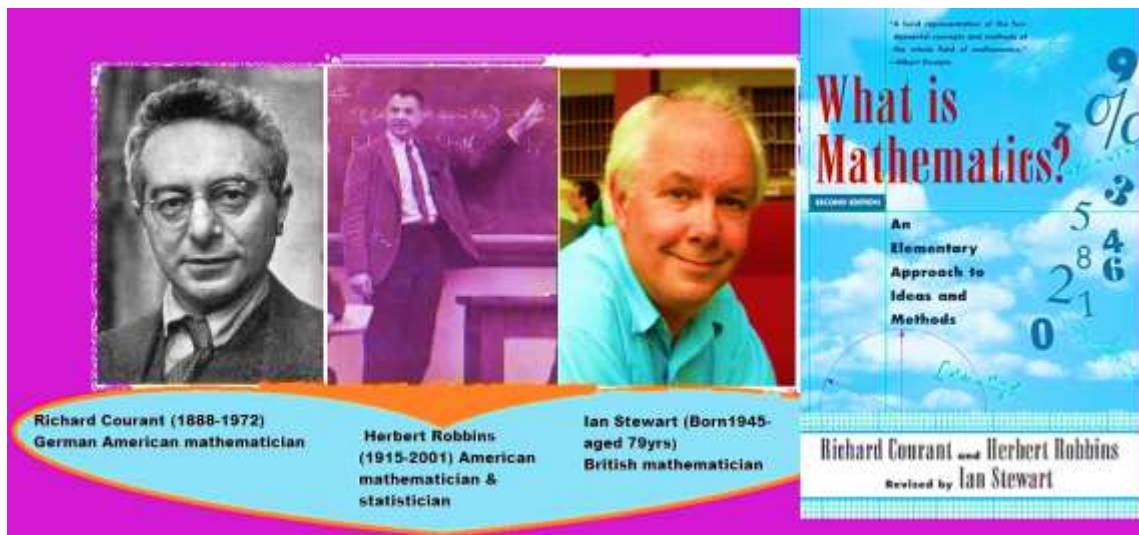


Fig. Authors of What is Mathematics?

It is worth reading, chewing and digesting prominent paraphrased excerpts extracted for the selective objective of knowing the current trend of detective-research-style Titles and to serve the passing fast introduction.

➤ On God

God created the natural numbers; everything else is man’s handiwork. In these words, Leopold Kronecker (1823-1891) pointed out the safe ground on which the structure of mathematics can be built. The image of Creation is in binary arithmetic which is seen by Leibniz He imagined that Unity

represented God and zero the void; that the Supreme Being drew all beings from the void, just as unity and zero express all numbers in His system of numeration

➤ **On Universe**

We should not necessarily expect the Euclidean Geometry to be suitable for describing the Universe as a whole, in its largest aspects. The logical “Universe of Discourse” defines the Universal Set for each attribute of objects defining themselves as a Set consisting of all such objects of such attribute in Universal Set which possess this attribute.

➤ **On Nature**

It has been more and more obvious that the bodily laws of nature are maximum safely expressed in phrases of a minimal principle that offers a natural ‘get admission without permission’ model’s more or much less complete answer of particular problems.

➤ **On Nature’s Force**

Nature’s fundamental concept which Newton took help of for presenting his mechanics, physics and dynamics knowledge is the force. He researched it with motion, mass, acceleration and function of time in Nature. Newton established components of force-in-action in accordance with the actual phenomena of Nature, displaying consonance between mathematical concept and Nature.

➤ **On Philosophical Radicalism**

In the 17th century, there was no intellectual tradition to permit philosophical radicalism. However, the desire for the latter, albeit scientifically relevant definitions became mature for progressiveness. Yet, the question stands “Deeply rooted in the philosophical attitude of the time and in the very nature of the human mind, limits are defined with the aid of proscribing processes or limits are described by limiting processes?”.

➤ **On System of Hindu Numbering**

The Hindu positional device now in use have been introduced into medieval Europe through the overseas traders and domestic merchants for imports & exports of commercial nature of Italy. Historical structures of the Roman computation with numbers turned into too hard for even the qualitatively best brains in ancient past. Mostly, the Egyptian, Hebrew, and Greek structures’ numeration became similar however with rise of newly appended fashionable symbols as numbers get large in length.

This paper is a work of an eagle’s eye view directed cutting-edge communication in contribution for self-directed research-output from the directly and indirectly mind-capturing well-researched Reference and secondary Source book “what is mathematics & an elementary approach to ideas & methods”.

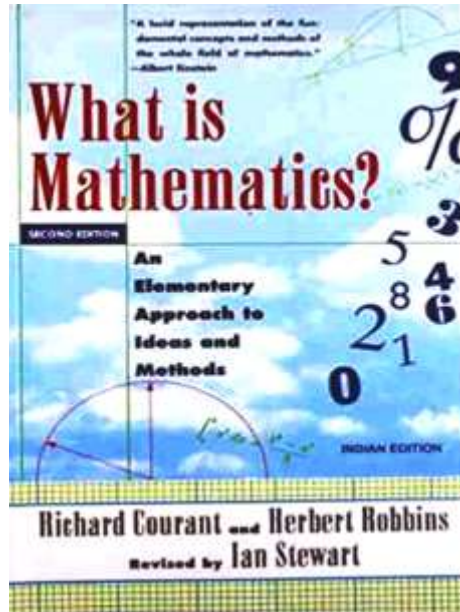
3. LITERATURE SURVEY

Literature Survey implies examining the academic work related to the subject of research-study undertaken. Finding existing literature means reasonably relevant published sources like text books /research papers so that contextual gaps /omissions/commissions in relation to current idea get developed to bridge the vacuum in research effort like a stitch in time saves nine.

3.1 Authored Book of Courant, R., Robbins, H. & Stewart, I. (1996). “What Is mathematics? An Elementary Approach to Ideas and *Methods*.” *Oxford University Press, Revised Edition*

This Book of knowledge of Mathematics is useful for *A Doubting Thomas* and that sort of scholars. It is penned on the development of Mathematics through transformations of insights, backward and forward in passage of time. Doubts germinate in brain but hidden as a treasure too long without seeking answer in clarity. After regularly reading, this Book makes one feel Mathematics is nothing but inter-laced and connected factual evidences expected of human beings by the Divine intent of purpose and benefit worthy of living a knowledgeable life-time.

This research Paper of mine has gathered its SWOT (Strength, Weakness, Opportunity, Threat) after several readings of various chapters in this Book to arrive at the current Title of the Paper and got rid of the paired set of WT in the SWOT. Accentuated by the paradoxes of set theory, the clash between the intuitionists and the formalists has been much publicized by passionate partisans of these schools. The mathematical world has resounded with a cry about the crisis in the foundations. But the alarm was not, and must not be, taken too seriously. With all credit to the achievements produced in the struggle for clarification of the foundations, it would be completely unjustified to infer that the living body of mathematics is in the least threatened by such differences of opinion or by the paradoxes inherent in an uncontrolled drift towards boundless generality.



Since the days of Euclid, geometry has been the prototype of an axiomatized discipline. For centuries Euclid's set of axioms has been the object of intensive study. But only recently has it become apparent that his postulates must be modified and completed if all of elementary geometry is to be deducible from them. Late in the nineteenth century, for example, Pasch discovered that the ordering of points on a line, the notion of "betweenness," requires a special postulate.

The intuitive idea of a continuum has a psychological reality in the human mind. But it cannot be called upon to resolve a mathematical impossibility; there must remain a discrepancy between the intuitive idea and the mathematical language designed to describe the scientifically relevant features of our intuition in exact logical terms.

3.2 Authored Book @ Arthur Avalon (1974). *The Serpent Power: The Secrets: Dover Publications, New York*

In the Indian Hinduism, the Devi or Goddess or the Sakti is called Bhujangi or Serpent.

The Sakti coils round and round to become the Kundalini Sakti. The word Kundalini comes from the word Kundala or a coil or a bangle. She is spoken of as coiled serpent (Bhujangi), which, when resting and sleeping, lies coiled as the Nature of Her Power manifesting as Egg or Brahmanda in the sack of Maya at two-dimensional position for ascending into the third dimension to manifest at the universe.

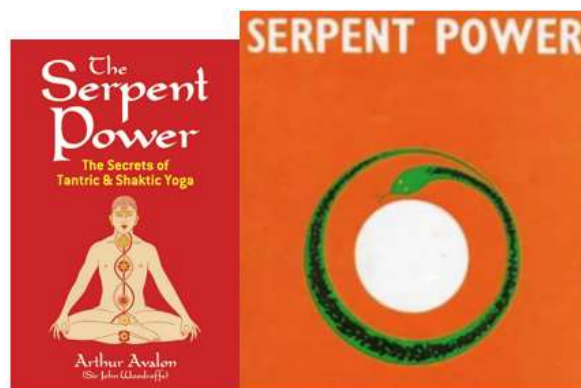


Fig. Cover photo of The Serpent Power

As for the differential & integral Calculus of the Kundalini Serpent, it has been explained that the calculus of the Kundalini serpent encompasses both differential and integral aspects, exploring the dynamic interplay between change and accumulation within this esoteric framework. This mathematical approach seeks to elucidate the transformative processes associated with the Kundalini energy, which is often depicted as a serpent coiled at the base of the spine. By applying calculus to this concept, one can analyze the rates of change in spiritual awakening and the cumulative effects of meditative practices on personal development. In examining the differential calculus of the Kundalini serpent, one can focus on the instantaneous rates of change that occur during various stages of spiritual evolution. This involves understanding how the energy rises in corresponding shifts in consciousness that accompany this ascent. The application of differential calculus allows for a nuanced understanding of these transitions, providing insights into the factors that influence the speed and nature of spiritual growth. Conversely, the integral calculus aspect pertains to the accumulation of experiences and insights gained throughout the spiritual journey.

This perspective emphasizes the importance of integrating knowledge and practices over time, leading to a holistic understanding of the self and the universe. By employing integral calculus, one can appreciate the totality of experiences that contribute to the awakening of the Kundalini serpent, highlighting the significance of both individual moments and the overarching journey toward enlightenment.

4. RESEARCH QUESTIONS

- What comforts human mind which says that the Nature surrounding mankind is metaphysical and disagree with such a set-up?
- What type of belief must have been nurtured by the mankind to make the independent Nature a slave-dependent of human will-powered commands & controls?
- Whether the mind inside a human is an equal and opposite force to that of the Nature?
- How long will it take for human mind to declare Sovereignty over Nature's independence?
- Does human mind accept the female gender of the Nature?
- Does human mind accept that a mathematical point is unity of dual aspect of the Nature's female gender and its counterpart- the male gender husband of Nature?
- What is the human mind in substance and constitution to ascribe and call it the Nature's Affine Geometry?

5. RESEARCH OBJECTIVE

To define a rational limitation to the inquisitiveness of the human mind as to why it is not possible to have UNTOS from the axiom-potential-faculty residing inside human mind's rational-power-regulated mathematical theory of sets.

6. RESEARCH SIGNIFICANCE

This Paper's title and textual organization, knowledge production and brick-by-brick presentation highlight the elementary significance of research in that it attaches secondary-level importance to creation of mathematics out of axioms since, in a nutshell, the real seed lies in the Nagamatics (Hinduism's nomenclature) of Nature whereas the world oppositely named it as Mathematics. In other words, it is understandably the visible pair of the Natural Numbers & Nagamatics against the world's Number Theory-cum-Nature's Affine Geometrical-combos Mathematics.

7. RESEARCH JUSTIFICATION

Earlier, "God Created Natural Numbers" was stated during 1823-1891 by Leopold Kronecker, the German-born mathematician. Therefore, one can add to such non-negative entity, the Nature's University as well as Nature's Students to justify this Paper's ANTOS (Alternative Theory of Natural Sets) as provided for in the Abstract very very firstly.

There is no distinguished choice of axioms leading to Unique Natural Theory of Sets (UNTOS) was stated during 1996 (AD) by Richard Courant, Herbert Robbins and Ian Stewart who all questioned as to what Mathematics is (Courant, Robbins and Stewart, 1996, p 494). At the same time, they all held the view that a significant discovery or an illuminating insight is rarely obtained by an exclusively axiomatic procedure and it is a dangerous fallacy to believe that axiomatics constitutes the essence of mathematics (Courant, Robbins and Stewart, 1996, p 216). Hence, their UNTOS is null and void and got to be replaced with the realism of ANTOS devoid of axiomatisation.

Also, the ANTOS finds their moral support for granted when they endorsed collectively that different philosophical convictions concerning the ultimate roots of human knowledge have led to apparently irreconcilable views on the foundations of mathematics. (Courant, Robbins and Stewart, 1996, p 215)

Under the above set of mutually excluding combats, this Paper has got a justification in stating that there is already in existence the ANTOS discernible within the advantage of Nature's University in general and to Nature's Students interested in Nature's universal attributes in particular, even during these 21st century days of non-annihilation of theological knowledge transforming itself into any scientific theological sophistry.

8. RESEARCH METHOD/METHODOLOGY

This Paper deploys Secondary Sources and resources available within referencing materials /internet reading/world-wide-websites for webinars.

The methodology employed for gathering information from secondary sources involves a systematic approach to referencing existing literature and data. This process typically includes the identification of relevant academic articles, books, and reports that provide insights into the research topic. By critically analysing these sources, researchers can synthesize findings and draw conclusions that contribute to the broader understanding of the subject of the research-on-hand.

In utilizing secondary sources, it is essential to ensure the credibility and reliability of the information being referenced. This entails evaluating the qualifications of the authors, the rigor of the research methods employed in the original studies, and the context in which the data was collected. By adhering to these standards, researchers can effectively leverage secondary data to support their hypotheses and enhance the validity of their own research endeavours.

9. THE INTUITIVE SET THEORY & WHAT IS MATHEMATICS?

The book *What is Mathematics?* intends to offer and provide a feasible account of comprehensively matured fundamental versions of mathematical precepts and concepts. It tackled set theory in a manner of naive-path-approach laying emphasis on the primitive idea of sets as collections of objects avoiding serious axiomatic brick-by-brick structuring pivotal to formal set theory similar to the style of the ZFC (Zermelo-Fraenkel set theory). When the authors teach set theory, they do so in particular mode of design to be easily chewed and digested by large congress of audience, which impliedly not axiomatic treatment.

9.1 Past-Present Statuses of Axioms Not Leading to UNTOS

There is no distinguished choice of axioms that lead to UNTOS according to Richard Courant, Herbert Robbins and Ian Stewart in 1996AD. This needs an ethical explanation as to what constituted the past-present statuses in this maximization context. It is crucial to specify and to clarify the timed-context of UNTOS as it connects itself to Courant, Robbins & Stewart when they attempted answering the Himalayan question of *What is Mathematics?* In essence, Courant, Robbins, and Stewart's approach prioritizes accessibility over formal rigor. While they provide valuable insights into the concept of sets, their treatment differs significantly from the axiomatic approach that is standard in modern mathematical research.

Here are the splitting-breakdowns of the presented situation.

Here are the splitting-breakdowns of the presented situation.

| Axiomatic Set Theory | Present Status | Past Status |
|--|---|---|
| Modern mathematics largely relies on the Zermelo-Fraenkel axioms with the axiom of choice (ZFC) as the standard foundation for set theory | ZFC remains the dominant brick-foundation for set theory in contemporary mathematics | <i>What is Mathematics?</i> was written to explain mathematics in a understandable way, so it focused on the intuitive nature of sets. |
| ZFC provides precise and consistent borders within scientific framework for defining sets and their properties, avoiding unwarranted paradoxes that arose in earlier, naive set theories | Intuitive understandings of sets are still valuable for learning / application while rigorous mathematical work relies on the iron-frame-work of axiomatic set theory. | Historically, set theory started with Georg Cantor's work, which was initially more intuitive. So, this led to paradoxes like that of Russell's paradox, highlighting the very needful axiomatic foundation |
| | <i>What is Mathematics?</i> remains worthy and valuable resource majority seeking to learning mathematics and dealing with sets still facilitates positively intuitive mental understanding | The development of ZFC in the early 20th century addressed above instances and issues that arose |

10. ZERO- ONE-INFINITY'S UNIVERSAL SALIENCE IN NATURE

The exploration of the functional relationship among the concepts of zero, one, and infinity has generated a multitude of theoretical frameworks within the realm of human understanding. Professing scholars and researcher-mathematicians have long anchored, deliberated and debated the implications and interconnections of this triad of fundamental numerical constructs, each contributing unique perceptions to the discourse. The inquiry into how these concepts interact and influence one another remains a vastly rich venue for investigation across various disciplines.

A great deal of theories and practices have emerged that seek to elucidate the character of this relationship, ranging from philosophical interpretations to mathematical formulations. Each theory offers distinct and proactive insights into how zero, one, and infinity can be regulated and perceived not only as numerical values but also as symbols demonstrating broader existential and mathematical principles in strength, weakness and improvement. The

complexity of these interactions invites ongoing sustainable dialogues and up-down-diggings in research, as the implications of these relationships extend into fields such as physics, computer science, and metaphysics.

As researchers continue to shop into the intricacies of zero, one, and infinity, the very many quantitative theories are likely to project expansion further. This ongoing exploration reflects the dynamic nature of human thought and the quest for understanding the foundational elements of reality. The interplay between these concepts not only challenges conventional wisdom but also inspires innovative approaches to both theoretical and practical applications in various main domains and co-domains of constructive knowledge.

11. NATURE'S AFFINE GEOMETRY (NAG) REVEALER NAGAMATICS

In view of the prevalence of the Nature's NAG revealer-explainers, this Paper's research decisively approaches to fix it as the proof of "NAGAMATICS" to coin it wholly in this new phraseology inside and outside the currently known-ambit of well and wealth of knowledge called mathematics.

Nature's Affine Geometry (NAG) originating from Nagamatics in parallel lines /ratios with dance-like transformation offers flexible language of affine geometry in various accounts to understand as opposed to Euclidean geometry's rigid rulers and round circles of distances & angles as restrictive frameworks in the world. The NAG has lens through which inherent symmetries and patterns such as branching of trees / flow of rivers in the natural world are exhibited in proportional relationships. Also, the NAG is thus, the dynamic and adaptable system in conception of parallelism with natural phenomena. keep in mind the branching styles of trees, even as the angles between branches can also vary, the general tendency for branches to grow roughly parallel to previous segments is a testimony to an underlying affine structure. This parallelism ensures green aid distribution and structural integrity while permitting the tree to maximize its stability. So also veins in a leaf showcase a hierarchical parallel model optimizing their transportation of nutrients and water. Affine proportions aid us in examining ratios/angles/areas and mathematicalized concepts. One wondering example is the golden ratio which is in-built in nature of structures. Hence, structured Nature or the NAG. The pre-arranged formation of seeds in sunflowers, branching of seashells and the branching of Romanesco broccoli, all are vehemently displaying the golden ratio which is a number originating from simple recursive expression. This is amazing and also, constitutes its proof of the natural systems expressed in self-similar growth and enlarge to expand while retaining proportional orders at different levels & in-scales of visible magnitudes. So, the NAG's self-sustaining patterns are the complex and astonishing affines which help form what we call fractal.

The NAG affords a framework for know-how alterations that maintain parallelism, together with translations, dilations, and shears. Translations, the transferring of gadgets without rotation or distortion, are obtrusive in the movement of schools of fish or flocks of birds, in which individual participants maintain relative positions while the group moves as a whole. Dilations, the scaling of gadgets, are seen inside the increase of organisms, in which tissues and organs extend proportionally even as retaining their universal shape. Shears, the sliding of parallel planes, can be discovered in the deformation of rock layers below tectonic stress, wherein the unique parallel strata are shifted and distorted but continue to be parallel in localized areas. In contrast to the rigidity of Euclidean geometry, the NAG's fluidity of affine transformations enables a more accurate depiction of natural processes. For example, a plant's growth is not a fixed, predictable process. Shape and size fluctuations are the outcome of a dynamic interaction between internal and external variables. With their focus on adaptability and flexibility, NAG's transformations are better able to capture this innate variability. NAG-examples in motion include the deformation of a raindrop as it falls, the stretching of a spider web, and the bending of a reed in the wind. Thus, the NAG flourishes. The NAG is not always without its barriers. It does no longer account for curvature, that is crucial for knowledge phenomena like the shape of planetary orbits or the curvature of spacetime. In these cases, Riemannian geometry, a greater well-known framework, is wanted. though, the NAG presents a valuable stepping stone toward understanding greater complicated geometric principles.

12. "NAGAMATICS IS TO AXIOMATICS" Is AS "ANTOS IS TO UNTOS"

At this point of reminiscing the Nature's Affine Geometry (NAG), as explained in # 11 just above, with its revealer Nagamatics, one gets an inculcation of as to comparing and contrasting at a glance between the two icons, namely, the Nagamatics and the Axiomatics. This inculcation is not an end in itself but worth an intuition to progressively relate them, to the ANTOS and the UNTOS, respectively, on the basis of their features.

COMPARE-CONTRAST AT A GLANCE NAGAMATICS VS AXIOMATICS

| Naga-matics | Axio-matics |
|---|---|
| Parallel lines/ratios emphasize relationships between points/lines/planes | Formal system of axioms/theorems providing rigorous reasoning |
| Flexible interpretation of properties & arranged positioning of objects in space-relativity | A set of human-mind's principles from which further truths/ derivatives of truthfulness emanate for broader understanding of geometric concepts |
| Exposes intrinsic relationship/configurations of entities inspirational to Geometrists. | Ensures broadened logical consistency throughout discourse to seek mental confidence of Geometrists. |
| In-depth insights into the nature of space and form/shapeliness | Seeks to establish universal truths applicable across various contexts & divided Continents |
| Creates inner viewing meta-physical Nature of ups/downs/troughs/crowns/splits/anti-shocks | Creating a more structured and systematic approach to geometry |
| Consumes flashes of brilliance of human-mind-timer-mechanisms | Consumes human-effort in mind on logical derivations, balancing properties and respecting available principles as limitations of knowledge of so-far-so-good-stocks |
| Highlights degrees of freedom of Nature's creativity for no cost and nil exhaustion of human faculties. | Highlights methodologies deployed/employed in mundane geometry learning & teaching purposefully as a routine servicing for revenue |
| Without defined metric | Needs defined metric/metrics |

Finally, the NAG exhibits parallel lines, proportional relationships and dynamic transformations which implies that itself is the instrumental demonstrator for deciphering mathematical structural organizations without any other kind of hand-tools from Nature's mystifications responsibly governing the world of the NAG. Flexibility with adaptability of the NAG is our gain of deeper appreciation for the beauty and complexity of the NAG's universe around us, recognizing that even in the seemingly chaotic world of nature, there exists secretly, the disciplined order and elegance, a dance of parallel lines and proportional change.

Also, this Paper is to regenerate much more of "NAGAMATICS" or in other words, as of the declaration of Nagamatics toward the human maximizing Axiomatics.

13. NAG IN HINDUISM HAS AFFIXER NAGAMATICS

To be frank to bringing it out into the open and public domain, the NAG in Hinduism has affixer Nagamatics as opposed to the Western Thought. Odium Theologicum & Axioms' Math of human affiliation. In other words, the Nagamatics stands out claiming the redundancy of western postulation of axiomatic schools for human rationality to fulfil human-made limitations designated as the Science and Scientific World. Imre Lakatos (1922-1974) was a Hungarian philosopher of science and mathematics who had claimed that a research program is informed by metaphysical beliefs as well as observation of facts and may infinitely resist falsification if a scientist wishes to continue holding it in spite of problems or the discovery of new evidence. If this view is correct, science does not remedy odium theologicum, it provides another field in which it may manifest (Lakatos, I)



Imre Lakatos (1922-1974)

Source: https://www.goodreads.com/author/show/79831.Imre_Lakatos

In view of the above Nature's NAG revealer-explainer in human minds, this Paper's research decisively fixes it as the proof of "NAGAMATICS" through Hinduism from Indian Sub-continent (Bharat) to coin it wholesome in this new phraseology inside and outside the currently known-ambit of knowledge-affidavit of mathematics & it's known will-power so far called global Math or Mathematical Science on Globe. Also, this Paper regenerates, rejuvenates, remunerates and reiterates the Hindu Vedic significances of "NAGAMATICS", (in other words, as to the declaration of Nagamatics) that "their (human) Freedoms of Axiomatization / Axiomatics end/stop where NAGAMATICS begins to uprise.

Therefore, it becomes noteworthy here and now that there exists already the Nagamatics prevalence of practically materialistic relevance from which emerges the Natural theory of Sets which is none else but the "Nature's Forces/Environment/Cosmatorium/Earth/ Resources leading to Natural Theory of Sets as Opposed to Western Thought, Odium Theologicum & Axioms' Math of Human Affiliation. Hence, this Paper calls Nagamatics "A Vortex Communication & Cutting-edge Contribution of Nature's University". The facets of Nagamatics uniquely found in Hinduism with relevance to this Paper are reproduced hereunder in shortcuts.

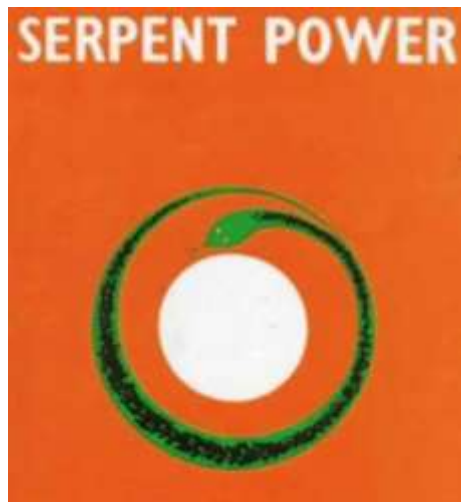
14. FACETS OF NAGAMATICS IN HINDUISM

- Mathematics and Algebra: Naga denotes the number 7 (seven) in the word-numeral system, which was used in Sanskrit texts dealing with astronomy, mathematics, metrics, as well as in the dates of inscriptions and manuscripts in ancient Indian literature. The word-numeral system of expressing numbers by means of words arranged as in the place-value notation was developed and perfected in India in the early centuries of the Christian era. In this system the numerals (e.g., 7 or the *naga*) are expressed by names of things, beings or concepts, which, naturally or in accordance with the teaching of the Sastras, connote numbers.
- Nāga represents the number 8 (eight) in the word-numeral system (Hemadri's Chaturvarga)
- Ancient Indian science of mathematics/ algebra/ number theory/ arithmetic closely allied with Astronomy which both were commonly taught and studied in ancient Indian universities even since the 1st millennium BC era.
- Naga implies any mountain, tree and plant of the Nature as per the fifth Veda of the Mahabharatam and the Atharva Veda.
- Naga represents the number 7 because of the 7 principal mountains in the Nature as per Surya Siddhanta.
- Naga denotes the Sun planet as per Hindu lexicographers, namely, Amarasimha, Halayudha and Hemacandra,
- Naga represents one of the five airs of the human body as per Vedantasara
- Associated with water which is Natural Resource in Hindu mythology, Naga is embodiment as also the custodian of terrestrial waters besides nagas guard treasure in underwater worlds containing non-water-solid & liquid & gaseous Natural Resources.
- Naga has power in Hinduism since the chakra at the base of the human spine is called Kundalini which means snake and serpent power inside the human body depicted as a coiled snake which is awakened by yogistics as well as rites

15. NATURE IS NAGAMATICS IS SERPENT POWER PER HINDUISM

Well-known in Mathematics out of axioms, the vocabulary of Point, Coil, Spiriline, Orbit, Circular, Spheroid, Revolving, Straight line, Length as a Point, Curve, two-dimensional, Plane, third-dimension, triangular, Pyramidal, Static potential energy, kinetic energy, duality, unity, magnitude, mathematical point and line and indivisibility are very much the crux of the matter of "Nature is Nagamatics is Serpent Power Per Hinduism. In the Indian Hinduism, the Devi or Goddess or the Sakti is called Bhujangi or Serpent.

The Sakti coiled round and round making one **point** with it to become the Kundalini Sakti. The word Kundalini comes from the word Kundala or a coil or a bangle. She is spoken of as coiled because She is likened to a serpent (Bhujangi), which, when resting and sleeping, lies coiled and because the nature of Her power is **spiriline**, manifesting itself as such in the worlds—the **spheroids** or Brahmanda and in their **circular or revolving orbits** and in other ways. Thus, the development of **the straight line from the point** which, when it has gone **its length as a point**, is turned (into a **curve**) by the force of the **spiriline** sack of Maya in which it works so as to form a figure of **two dimensions**, which again is turned upon itself, **ascending as a straight line**, into the plane of **the third dimension**, thus forming the **triangular or pyramidal** figure (in the shape of the well-known water-nut which grows freely in the lakes of Kashmir of India). In other words, the Kundali Sakti is that which, when it moves to manifest itself, appears at the universe. To say that it is coiled is to say that it is at rest, i.e., in the form of **static potential energy**. Static represents Shiva and kinetic represents Sakti for the purpose of creation, i.e., duality into unity. Where does the Universe go at dissolution? It is withdrawn into that Sakti which projected it. It collapses, so to speak, into a **mathematical point**, without any magnitude, whatever. This is known as the Shiv-dot around which there is coiled Sakti. This coiled Sakti is conceived as a **mathematical line**, also without magnitude, which being everywhere in contact with the point round which it is coiled is compressed together with it and forms therefore also one and the same point. This is one indivisible unity of dual aspect



Source: Authored Book @ Arthur Avalon (1974). *The Serpent Power: The Secrets*: Dover Publications, New York

16. NAGAMATICS ELEVATED HINDUISM

The Nagamatics is the moral, intellectual and cultural tramlining for the Hinduism. This also holds transformations of elevator Nagamatics which are the most ancient elevators of other contending theologians indulging in marginalization of Hinduism. Hinduism has been a body of religious and philosophical values, beliefs, aspirations and culturally actionable practices native to the lands of Indian subcontinent and based on a plural caste system and well-characterized by unwavering trust of reincarnation besides by the belief in the supreme soul of many and diverse forms and natures with the view that many opposing theories are aspects of one-sided eternal truth largely and by a desire for liberation from earthly evils. Ancient history of India tracks identification of countries, villages, towns and other regions of India, as well as mythology, zoology, royal dynasties, rulers, tribes, local festivities and traditions and regional languages. Ancient India enjoyed religious freedom and encourages the path of Dharma, a concept native to Hinduism.

Naga implies cobra in Hindu Sanskrit and in Hinduism and allied religions like Jainism/Buddhism the divine half human, half snake Naga is a strong and powerful great serpent. Nagas in Hinduism are mythical beings that can assume human or serpent forms. Associated with water which is Natural Resource in Hindu mythology, nagas guard treasure in underwater worlds containing non-water-solid & liquid Natural Resources. Nagas have powers in Hinduism. In Hinduism, they are associated with water and water sources. The chakra at the base of the spine is called Kundalini, which means snake. It refers to the serpent power inside the human body and it is depicted as a coiled snake which is awakened by the Yogistics.

The Naga refers to mythology of almost day-to-day in very high frequencies through the clans and ethnic groups in global population in general and in Hindu traditions in particular. Naga, a serpentine deity or race in Hinduism's Hindutva traditions cannot be overlooked or looked down upon for most obvious reasons of the fifth Veda of Hindus' Hinduism. The Naga Kingdom throughout the epic Mahabharata had its due recognition while the Naga People and Naga Sadhus or the Hindu ascetics of the Himalayas are quite popular internationally even now. The historian of religions Mircea Eliade observed in *The Myth of the Eternal Return*, 'the serpent symbolizes chaos, the formless and nonmanifested'. In *The Symbolism of the Cross*, Traditionalist Rene Guenon contended that the serpent will depict the series of the cycles of universal manifestation, the indefinitude of universal Existence and the being's attachment to the indefinite series of cycles of manifestation. In some cultures, snakes were fertility symbols. For example, the Hopi people of North America performed an annual snake dance to celebrate the union of Snake Youth (a Sky spirit) and Snake Girl (an Underworld spirit) and to renew the fertility of Nature. The snake dance is a prayer to the spirits of the clouds, the thunder and the lightning, that the rain may fall on the growing crops. To the Hopi, snakes symbolized the umbilical cord, joining all humans to Mother Earth (Planet Earth /Nature's Earth).

Additionally, the following throw light on the Naga giving varied and saturated mindful beliefs.

Naga, another name for [Bakunawa](#), a sea serpent deity in Filipino mythology

- [Naga people](#), an ethnic group of northeast India and northwest Burma
- Nagas of Padmavati, a royal dynasty of the 3–4 centuries AD
- Naga Rajput, a group of Rajput clans
- Naga people (Lanka), an ancient tribe of Sri Lanka
- [Naga Sadhus](#), Hindu ascetics of the Himalayas
- Naga language, one of the Bikol languages, spoken in Naga, Camarines Sur, Philippines
- Naga fireball, a phenomenon seen along the Mekong River

- NAGA (gene), which encodes enzyme
- Naga village, West Java, Indonesia
- Naga, Camarines Sur, Philippines
- Naga, Cebu, Philippines
- Naga District, Mie, Japan
- Naga District, Wakayama, Japan
- Naga Hills on the India-Myanmar border
- Naga Hills District or Hkamti District in Burma
- Nagaland in Asia
- Naga, Wakayama, a town in Japan
- Naga, Zamboanga Sibugay, Philippines
- Naga River, river in Philippines
- Nagasaki is city of western Kyushu, Japan on Nagasaki Bay, an inlet of the East China Sea.
- Nagasaki is the first Japanese port to be opened to foreign trade in the 1500s AD,
- Nagasaki was devastated by the second atomic bomb used in World War II (1945).

17. CONCLUSION

One will have to look down upon the waiting lists of multiple axioms that might have accumulated by now for launching a non-existent UNTOS as sought by mathematicians -Richard Courant, Herbert Robbins & Ian Stewart during 1996AD.

In the que of Axioms, there may be standing Axio-misers as well as Axio-mists holding in hands respective bossy-axioms & subordinational-axioms causing the effects of misers and mists in both ways of being bossy and subordinational at about the same instant in time creating new types of uncertainties' complexes. And, yet hopeful that they are leading to UNTOS for the first time. Some of the axioms might have been in one of the categories of secular, pseudo-secular and scient-secular despite buttressed mathematics.

My observation is in the anticipatory UNTOS of Richard Courant, Herbert Robbins & Ian Stewart, the word 'natural' is used in the ordinary and usually simple sense which is interpretable as informally mathematical in tune and harmony with the currently prevalent Set Theory's terms and conditions of mathematics globally influenced by the global order norms established by united mathematicians on thesis-ing UNTOS.

However, in this Research Paper, their usage becomes for the purpose of my intuition: natural (disambiguation) which conveys that natural is an adjective that refers to Nature and also, inspired by being in the protective brackets of the principles and findings of human reason and what is to be learned from Nature rather than on revelation by theological considerations of revelations.

"When mathematical methods are applied to the study of natural phenomena one is usually satisfied with arguments in the course of which the chain of strict logical reasoning is interrupted by more or less plausible assumptions. Even in pure mathematics one encounters reasoning which, while it does not provide a rigorous proof, nevertheless suggests the correct solution and points the direction in which a rigorous proof may be sought" (Courant, Robbins and Stewart, 1996, p 482)



Leopold Kronecker (1823-1891): source: <https://mathshistory.st-andrews.ac.uk/Biographies/Kronecker/>

“God created the natural numbers; everything else is man’s handiwork. In these words, Leopold Kronecker (1823-1891) pointed out the safe ground on which the structure of mathematics can be built.” Hence, the ANTOS in existence already will and need not have to clash with unwarranted UNTOS! Nature’s Forces/Environment/Cosmatorium/Earth/Resources Lead to Natural Theory of Sets as Opposed to Western Thought, Odium Theologicum & Axioms’ Math of Human Affiliation: Thus comes a vortex communication & cutting-edge contribution of Nature’s University.

REFERENCES

- [1]. <https://www.studysmarter.co.uk/explanations/math/geometry/affine-geometry/>
- [2]. [https://en.wikipedia.org/wiki/Affine_geometry#:~:text=Geometrically%2C%20affine%20transformations%20\(affinities\),and%20preserve%20ratios%20of%20distances](https://en.wikipedia.org/wiki/Affine_geometry#:~:text=Geometrically%2C%20affine%20transformations%20(affinities),and%20preserve%20ratios%20of%20distances)
- [3]. <https://byjus.com/neet/leaf-venation-notes/>
- [4]. <https://blog.iaac.net/exploring-the-golden-ratio-in-sunflower-seed-distribution#:~:text=%E2%80%9CThe%20seed%20heads%20of%20sunflowers,golden%20ratio%20and%20Fibonacci%20sequence%E2%80%9D>
- [5]. <https://medium.com/@Mathfellow/fractals-unveiling-the-infinite-dance-of-self-similarity-02f8a3fe02e8>
- [6]. https://en.wikipedia.org/wiki/Serpent_symbolism
- [7]. “Odium Theologicum.” Wikipedia, 14 Nov. 2021. Wikipedia, https://en.wikipedia.org/w/index.php?title=Odium_theologicum&oldid=1055133915.
- [8]. <https://www.wisdomlib.org/definition/naga>
- [9]. https://veda.harekrsna.cz/encyclopedia/nagas_abridged.htm
- [10]. Courant, R., Robbins, H. and Stewart, I. (1996). What Is mathematics? : an Elementary Approach to Ideas and Methods. 2nd ed. [online] Oxford: Oxford University Press, pp.1–566. Available at: https://archive.org/details/whatismathematic_0000cour/page/216/mode/1up?view=theater [Accessed 28 Feb. 2025]. Opens a window onto the world of Mathematics.
- [11]. The Free Dictionary [Internet]. "Odium theologicum". Wikipedia.org, Wikimedia, 2014 [cited 1 Apr. 2025]. Available from: <https://encyclopedia.thefreedictionary.com/Odium+theologicum>
- [12]. Arthur Avalon (1974). The Serpent Power: The Secrets o Yoga: Dover Publications, New York [Yorkhttps://books.google.co.in/books?id=TyX1OqLDb9gC&printsec=frontcover&redir_esc=y#v=onepage&q&f=false]
- [13]. Jhunjhunwala, Ex-Prof.Dr.Bharat. (2024). Biblical serpent is the spinal cord. [online] Education. Available at: <https://vocal.media/education/biblical-serpent-is-the-spinal-cord>[Accessed 29 Jan. 2025]. Video- <https://youtu.be/Fuib9rEeXGk>Paper-<http://www.commonprophets.com/3703-2/> Post- <http://www.commonprophets.com/secret-of-snake-in-bible-lies-in-hindu-psychology/>