

JOURNAL OF QURANIC SCIENCES AND RESEARCH

e-ISSN: 2773-5532



Vol. 5 No. 1 (2024) 80-103 https://publisher.uthm.edu.my/ojs/index.php/jqsr

The Divine Blueprint: An In-Deth Analysis of the Quran's Mathematical Architecture - Revealing the Golden Ratio, Solar Year Length, Universal Gravitational Constant, Speed of Light, Planck Constant, and the Significance of the Numbers 28 and 114

Khaled Mahmoud Salim Al-Faqih¹

¹ Information Systems Department, Al al-Bayt University, Mafrag, JORDAN

*Corresponding Author: km_faqih@aabu.edu.jo DOI: https://doi.org/10.30880/jqsr.2024.05.01.008

Article Info

Received: 18 February 2024 Accepted: 04 May 2024 Available online: 30 June 2024

Keywords

The Quran, divine, blueprint, mathematical architecture, universal physical constants

Abstract

There is a strong belief that Allah Almighty could reveal His existence by encoding the laws of nature and their fundamental constants in the Quran with impeccable precision. However, the mathematical frameworks and patterns embedded within the Quranic text to reveal scientific laws and constants may contain minor deviations in numerical values to empower personal exploration, accommodate diverse interpretations, and strengthen faith. This theory is based on the fact that the Quran is the word of Allah Almighty. Consequently, one would anticipate finding evidence suggesting a divine origin. Many scholars and researchers have suggested that this evidence can be found in the mathematical structure of the Quran through patterns, numerical codes, and other mathematical features within the text that are too complex to be simply attributed to human authorship. Therefore, it is believed that the Quran contains within its structure a mathematical encoding of all physical laws and constants. Verses like 20.98, which state, "He encompasses all things in knowledge," are quoted as evidence. According to this perspective, the Quran is assumed to incorporate mathematical miracles, indicating a potential correspondence between its text and the underlying order of the universe. This theory reveals many mathematical frameworks illustrating how the Quran embeds scientific knowledge. These include the identification of frequent occurrences of the golden ratio within the Quranic text and the manifestation of the golden ratio in the human body, alongside the determination of key celestial parameters such as the length of the solar year. Furthermore, this theory uncovers a numerical link between the Quran and fundamental scientific constants, notably the universal gravitational constant, the speed of light, and the Planck constant. Moreover, this theory utilizes numerical analysis to offer a compelling rationale for why the numbers 28 and 114 are used to represent the total number of Arabic letters and chapters in the Quran, respectively. Finally, this theory highlights the Quran's remarkable mathematical architecture, offering indisputable evidence of its divine composition. We behold a mathematical marvel of cosmic scale, a phenomenon defying human intelligence. Indeed, the Quran is a product of a superintelligence exceeding our comprehension.

1. Introduction

"In my youth, I experienced a dream featuring Prophet Muhammad (peace be upon him). The great privilege I experience of seeing Prophet Muhammad has inspired me to seek means of authenticating his prophecy by attempting to uncover the scientific revelations within the Quran. By the grace of Allah Almighty, I have successfully uncovered the most important hidden scientific revelations."

Rashad Khalifa introduced the theory of 19 about fifty years ago by providing a robust mathematical framework to support the divine authorship of the Quran (Khalifa, 1973; Khalifa, 1981). Rashad Khalifa's theory has sparked widespread interest, prompting new lines of research and inspiring fresh avenues of exploration in Quranic numerology. Subsequently, researchers are actively seeking to offer proof of the Quran's divine origin. Many researchers have diligently attempted to authenticate the divine authorship of the Quran, emphasizing its incomparable literary quality and challenging others to attempt to replicate its style. Indeed, the Quran's powerful style is apparently incompatible with any existing well-known literary works (Al-Faqih, 2017; Malik, 2022; Younes, 2024). Khalifa's work has encouraged further research into Quranic numerology. Since then, researchers like Bassam Jarrar (2001) and Abdul Daem Al-Kaheel (2006) have been involved in exploring different frontiers in the study of Quranic numerology, uncovering interesting mathematical patterns that suggest divine influence, and contributing to the ongoing study of its divine origins.

A novel theory was proposed by Al-Faqih (2017) that utilizes the gematrical system and incorporates the complete Quranic text, strongly echoing and reinforcing the established convention that the Quran is a divinely inspired book. Al-Faqih's theory established a numerical framework called the Quran Constant (QC), which is fundamental to all mathematical equations derived from Al-Faqih's theory. The theory demonstrated that an interplay between the total number of chapters in the Quran (114) and the Quran constant (70.44911244) approximates the golden ratio with sufficient accuracy. Furthermore, the theory led to the formulation of highly accurate mathematical relationships that can be used to determine the total number of words, verses, and chapters in the Quran with a high degree of precision. This pioneering theory concludes that the Quran incorporates a sophisticated mathematical structural design beyond human understanding and serves as indisputable evidence of its divine origin and immaculate preservation since its revelation.

Many believe that the Quran encodes mathematically all physical laws and constants (Al-Faqih, 2017; Aziz, 2019; GENÇ and Hassan, 2019; Jamil, 2019; Ahsan and Ahsan, 2020; Al-Faqih and Moghadam, 2023). Verses like 20.98 ("He encompasses all things in knowledge") are often cited as compelling evidence that the Quran contains profound insights and hidden knowledge, including everything in existence, from the smallest particle to the grandest cosmic phenomena. This hidden knowledge and profound insights wait to be discovered through diligent exploration and contemplation. However, extracting precise scientific laws and constants from the structure and composition of the Quran poses substantial challenges and continues to stand as a formidable task for researchers and scholars. Despite these challenges, the pursuit to expose scientific insights within the Quran continues, driven by the conviction that the Quran holds profound truths transcending the boundaries of time and space.

While there are many conceivable ways Allah Almighty could unequivocally demonstrate His existence with absolute certainty, striking a delicate equilibrium between providing evidence and maintaining the crucial tests of faith and free will is a fundamental consideration in solidifying belief in a higher power. Indeed, Allah Almighty, in His infinite wisdom, has the power to encode and embed within the Quran all scientific laws and constants with impeccable precision to make His existence known with indisputable proof. However, Allah Almighty intentionally induces very small numerical variations into these mathematically encoded scientific laws and constants, rather than providing them with perfect accuracy, in order to encourage people to seek Him and believe in Him. This perception advocates that if everything were perfectly precise, people might become like angels, obedient without free will, whereas humans are meant to be different from angels in many ways, including having the ability to choose faith.

The Quran does not operate as a physical laboratory in the scientific sense. Instead, for example, predicting numerically any physical constant can be encoded through specific mathematical patterns and parameters without the need for traditional scientific measurements or experimentation. This means that if one intends to find how the Quran encodes the speed of light, it can be accomplished by exploring mathematical patterns within the structure of the Quran rather than relying on direct measurements of distance and time. By analyzing the mathematical patterns encoded within the Quran's framework, one can potentially discover insights into various scientific phenomena, highlighting a unique intersection between faith and empirical investigation. This concept resonates with numerology, wherein one seeks to expose hidden meanings within numbers and texts.

Moreover, the Quran contains specific references to modern scientific facts, such as verses 22.47 and 70.4 regarding the speed of light (Atighetchi, 2007; Clark, 2014; Kellenberger and Kellenberger, 2015). Furthermore, the Quran contains passages that resonate with contemporary scientific knowledge, such as descriptions of



embryology and celestial bodies. Many proponents argue that certain verses in the Quran can be interpreted to harmonize with scientific facts discovered much later.

This theory aims to achieve multiple objectives. First, it will provide an overview of Al-Faqih's Quranic theory (2017), as many of its parameters and aspects are relevant to the primary intentions of the current analysis. Second, it will provide a mathematical formulation of how the Quran encodes the following scientific principles and phenomena: The Golden Ratio, the Golden Ratio in the human body, the length of the solar year, the universal gravitational constant, the speed of light, and the Planck constant. This theory is based on the fact that the Quran is the word of Allah Almighty, and one might anticipate finding evidence of its divine origin. Many scholars and researchers have suggested that this evidence can be found in the mathematical structure of the Quran through patterns, numerical codes, and other mathematical features within the text that are too complex to have been the result of human authorship alone. These mathematical features are encoded and embedded within the text and the organization of the Quran with the intention to serve as a form of protection, making it practically impossible for the text to be altered or corrupted over time. However, for those who have faith in the divine inspiration of the Quran, the presence of such mathematical evidence serves as additional confirmation of its sacred status.

2. A Review of Al-Faqih Quranic Theory

Al-Faqih's theory draws upon the Quran's first drawing, a text that was verbally transmitted in Arabic by the angel Gabriel to Prophet Muhammad and written in 28 letters under the guidance of the Prophet himself with a minimal number of diacritics and symbols (Uthmanic manuscript). A letter is counted if it is physically written, similar to the English language, and this precisely corresponds to the first drawing of the Quran. Experts from various Arab countries have established the appropriate rules and guidelines for counting letters and words (Al-Kaheel, 2012; Al-Kaheel, 2017).

Al-Faqih's Quranic theory has found widespread acceptance and recognition among many Muslims, gaining traction in recent years, and resonating with a growing audience (Haidar, 2022; Orhani, 2022; 114 CHAMBERS, 2022; Al-Faqih and Moghadam, 2023; El-Najjar, 2023; Seyidali, 2024). This Quranic theory's impact has remarkably transcended language barriers. A prestigious Iranian publication recognized this pioneering work and landmark achievement by publishing a Persian translation, acknowledging its profound and transformative contributions (Al-Faqih and Moghadam, 2023; Moghadam, 2023). This theory offers an innovative contribution to Quranic scholarship.

The fundamental goal of this theory is to offer conclusive evidence of the divine origin of the Quran using all Quranic elements. Al-Faqih's theory comprises three divine textual elements:

- (1) The Quranic corpus, comprising 114 chapters, 6,236 verses, 86,967 words, and 322,604 letters.
- (2) The 112 unnumbered Bismillahs, each comprising 4 words and 19 letters, totaling 448 words and 2,128 letters.
- (3) The names of the 114 chapters, encompassing 115 words (noting that Chapter Al-Imran has a two-worded name) and 652 letters. The theory regards these names as being of divine origin.

This indicates that the text used in the theory encompasses 114 chapters, 6,236 verses, 87,530 words, and 325,384 letters. The Abjad (Gematria) value of the text (23,506,544), comprising 325,384 letters as per Al-Faqih's framework, was calculated based on the Arabic alphabet. The Abjad numeral (Gematria) represents "a decimal numeral system wherein each of the 28 Arabic alphabets is assigned a number" (refer to Table 1). Both the text itself and its corresponding Gematria value are detailed in Tables 2 and 3.

Three mathematical attributes of the Arabic Gematria numeral system, along with the Quran Constant (70.44911244), are primarily recognized as mathematically relevant to unlocking the primary statistics of the Quran (words, verses, chapters) as well as revealing the golden ratio (Al-Faqih, 2017). These numerical attributes are:

- (1) The reciprocal sum of the 28 Abjad (Gematria) values (π_A =263857/84000=3.141154762). Note that the sum of the first 28 digits is 114 (π_A =3.141154761904761904761).
- (2) The sum of the 28 Abjad (Gematria) values (q_c) : 5995 (5+9+9+5=28).
- (3) The total number of Abjad (Gematria) values (q_v) : 28.



 Table 1 Abjad values of the Arabic alphabet

Sequential Value	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Arabic Alphabet	١	ب	ح	7	٥	و	ز	ح	ط	ي	أى	J	م	ن
English	alif	baa	jeem		-	waaw	,		Taa	-	_	laam	meem	noon
Transliteration Symbol Abjad Value	aa 1	b 2) 3	d 4	h 5	6	z 7	H 8	T 9	у 10	k 20	1 30	m 40	n 50
ŕ		_		_			,							
Sequential Value	15	16	17	18	19	12	21	22	23	24	25	26	27	28
Arabic Alphabet	w	ع	ف	ص	ق	ر	ش	ت	ث	خ	ذ	ض	ظ	غ
English	seen	aayn	ı faa	Saad	qaaf	raa	sheen	taa	Thaa	khaa	thaal	Daad	DHaad	ghayne
Transliteration Symbol	S	'a	f	S	q	r	sh	t	th	kh	dh	D	DH	gh
Abjad Value	60	70	80	90	100	200	300	400	500	600	700	800	900	1000

Table 2 *The abjad value of the Quran (322604 letters)*

Number	Letter in Arabic	Letter in English	Letter's Abjad Value	Letter Frequency	Total Abjad Value
1	1	aa	1	52655	52655
2	ب	b	2	11491	22982
3	E	j	3	3317	9951
4	7	d	4	5991	23964
5	٥	h	5	17194	85970
6	و	w	6	25676	154056
7	و ز	Z	7	1599	11193
8	7	Н	8	4140	33120
9	ح ط	Т	9	1273	11457
10	ي	у	10	25746	257460
11	ك	k	20	10497	209940
12	ل	l	30	38102	1143060
13	م	m	40	26735	1069400
14	ن	n	50	27268	1363400
15	<i>س</i>	S	60	6010	360600
16	ع	'a	70	9405	658350
17	ف	f	80	8747	699760
18	ص	S	90	2074	186660
19	ق	q	100	7034	703400
20	ر	r	200	12403	2480600
21	ů	sh	300	2124	637200
22	ت	t	400	10520	4208000
23	ث	th	500	1414	707000
24	خ ذ	kh	600	2497	1498200
25	2	th	700	4932	3452400
26	ض	D	800	1686	1348800
27	ظ	DH	900	853	767700
28	غ	gh	1000	1221	1221000
	Total		5995	322604	23378278



Component	Number of	Number of	Abjad Value
	Letters	Words	(AV)
The Quran Corpus (6236 Verses)	322604	86967	23378278
The 112 un-numbered Basmalahs^	2128 (19×112)	448(4×112)	88032 (786×112)
Names of chapters (Surahs) Total	652	115	40234
	325384	87530	23506544

Table 3 Total number of letters, words and abjad value of the whole Quran (three divine components)

Note: ^ Each Basmalah consists of 4 words and 19 letters with a total Abjad value of 786

2.1 The Quran Constant

The Quranic theory introduced a mathematical concept known as the Quran Constant (QC). The fundamental aim behind this concept is to pinpoint a distinctive numerical value capable of revealing even the slightest alterations in the Quranic text. In essence, the Quran Constant serves as a numerical representation that captures the complex mathematical composition of the Ouran, encompassing its textual content and organizational structure.

To accomplish this challenging task, I, with the guidance of the Almighty, have been successful in establishing this unique constant through the fusion of two fundamental numerical values: First, the gematrical value of the Quranic text (Abjad Value = 23,506,544), based on its 325,384 letters. The Abjad value (AV) serves as a protection mechanism to safeguard the integrity of the Quranic text from any attempts at tampering or alteration (Al-Faqih, 2017). The second numerical value has to exhibit a mathematical property to safeguard the organizational structure of the Quran. The cumulative sum of verse numbers (333,667) uniquely preserves the integrity of the organizational structure of the Quran, ensuring that any attempt to tamper with its organizational structure/arrangement would be readily exposed. The Quran Constant governs the mathematical blueprint of the Quran's design. The Quran Constant thematically encapsulates the mathematical textual structure, organization, and configuration inherent in the Quran. In other words, the Quran Constant represents the mathematical design of the Ouran.

The Quran Constant (QC) can be mathematically expressed as the ratio of the Abjad value of the Quran (23506544) to the cumulative sum of its verse numbers (333667). We have,

Quran Constant (QC) =
$$\frac{23506544}{333667}$$
 = 70.44911244 (1)

This constant holds significance in revealing numerous numerical patterns within the Quran. It uncovers hidden connections among various elements such as the total number of words, verses, and chapters, as well as the presence of the Golden Ratio—a mathematical ratio commonly observed in natural phenomena.

2.2 Golden Ratio

One of the central themes of Al-Faqih's Quranic theory revolves around exploring whether the Quran adheres to the principles of the Golden Ratio. Throughout nature, numerous living and non-living entities display patterns aligning with this ratio. However, according to Al-Faqih's Quranic theory (2017), the Quranic Golden Ratio is specifically defined as the ratio between the Quran's physical structure and its mathematical design. The Quran is physically organized into 114 chapters and mathematically designed in accordance with the principles outlined in Al-Faqih's Quranic theory. This is exemplified by the concept of the Quran Constant (70.44911244), illustrating how the Holy Quran is mathematically structured, designed, and configured.

Golden Ratio =
$$\frac{114}{\text{Quran Constant}} = \frac{114}{70.44911244} = 1.618189301$$
 (2)

Unarguably, this remarkable convergence with the ideal Golden Ratio within 99.99% constitutes extraordinarily compelling evidence that strongly supports the belief in the divine authorship of the Quran. A highly accurate evaluation of the Golden Ratio in the Quran and other Holy Books has never been achieved before, despite numerous studies utilizing various methodologies, approaches, and techniques on all monotheistic scriptures (Man, 2002). More importantly, this study is unique compared to other studies as it incorporates all the textual content of the Quran (Akhtaruzzaman and Shafie, 2011).



2.3 Words Total in the Quran

Attempting to quantify the total number of words in a human-authored book exclusively through mathematical patterns is indeed a monumental endeavor. While the idea of using mathematical patterns to determine word count may hold a certain fascination, the reality is far more complex and elusive. For instance, devising a mathematical formula that correlates the total number of words with the total number of letters is fundamentally unattainable, if not outright impossible, given the complexities inherent in textual composition. However, this scenario becomes conceivable if a supernatural intelligent design has been responsible for authoring the book—a Creator. The implication here is that a Creator would have complete knowledge and control over every aspect of the book, including its composition, theoretically enabling the establishment of a mathematical relationship between the number of words and letters therein.

Does the Quran have an encoded mathematical formula that leads to the knowledge of the average ratio of the total number of letters per word? It is important that any knowledge of the average ratio of the number of letters per word should be encoded in the Quran through only one relationship because a word is composed of letters. Certainly, it has been found that the Quran encodes the average ratio of the number of letters per word in accordance with the following formula:

$$q_{LW} = \frac{Log_e(QC)}{Log_e(\pi_A)}$$
(3)

Substitute for QC=70.44911244 and π_A =3.141154762. We have

$$q_{LW} = \frac{Log_e(70.44911244)}{Log_e(3.141154762)} = 3.717391219$$
(4)

Therefore,

Total number of words =

$$\frac{\text{Total Letters of the Quran}}{q_{LW}} = \frac{325384}{3.717391219} = 87530.2 \approx 87530$$
 (5)

Miraculously, this result corresponds to the precise total count of words in the Quran with negligible decimal values (Table 3). Undoubtedly, this mathematical coherence serves as compelling evidence of the divine design, structure, and configuration of the Quran. This inexplicable mathematical phenomenon overwhelmingly supports the authenticity of the Quran and its divine inspiration.

2.4 Verses Total in the Quran

The varying sizes of Quranic verses exhibit an interesting pattern of unpredictability. Without the premise of divine inspiration, attempting to arrive at any knowledge that would lend itself to simplifying how the total number of verses can be determined becomes notably challenging. This complexity emphasizes the profound nature of the Quran, suggesting its divine origin through its complex structure and composition. It is crucial to highlight that information contributing to the determination of the total count of verses should be encoded in the Quran through two relationships, as a verse is composed of words and a word is composed of letters. The Holy Quran encodes the average ratio of a verse to letters (q_{VL}) in a formula comprising the sum of two relationships. It has been found that the Quran encodes the average ratio of a verse to letters (q_{VL}) according to the following formula:

$$Log_{e}(q_{VL}) = Log_{e}\left(\frac{QC}{q_{v}}\right) + \frac{Log_{e}(QC)}{Log_{e}(q_{v})}$$
(6)

Substituting, QC=70.44911244 and q_v=5995.

$$Log_{e}(q_{VL}) = Log_{e}\left(\frac{70.44911244}{5995}\right) + \frac{Log_{e}(70.44911244)}{Log_{e}(5995)} = -3.954648384 \tag{7}$$

Consequently,

$$q_{VL} = 0.019165406 \text{ Verse/letters.}$$
 (8)



Therefore,

Total number of verses =
$$325384 \times 0.019165406 = 6236.116466 \approx 6236$$
 (9)

Miraculously, this result corresponds to the actual total number of verses in the Quran with insignificant decimal values. This remarkable correspondence convincingly confirms that the Quran was divinely revealed and inspired by a Creator.

2.5 Chapters Total in the Quran

Attempting to quantify mathematically how many chapters the Quran is composed of is an enormously challenging and unattainable mission. In fact, how the Quran is structured into chapters remains mysterious to humans. Unlocking the mathematical knowledge essential to quantitatively determining the number of chapters into which the Quran is organized is conceivable if the Quran is divinely authored. The Holy Quran encodes the average ratio of the number of letters per chapter (q_{LC}) in a formula comprising the sum of three relationships, as expected because a chapter is composed of verses, a verse is composed of words, and a word is composed of letters. First, it is observed that the Quran encodes the average ratio of words per chapter (q_{WC}) as per the following formula:

$$Log_{e}(q_{WC}) = Log_{e}\left(\frac{q_{v}}{q_{c}}\right) + \frac{Log_{e}(QC)}{Log_{e}(q_{c})}$$
(10)

Second, it can be written such that:

$$q_{LC} = q_{LW} \times q_{WC}. \tag{11}$$

$$Log_{e}(q_{LC}) = Log_{e}(q_{WC}) + Log_{e}(q_{LW}).$$
(12)

Where q_{LW} (the average ratio of letters per word) has already determined (refer to equation 4),

$$q_{LW} = \frac{Log_e(QC)}{Log_e(\pi_A)}.$$
 (13)

On substitution in equation (12), we get,

$$Log_{e}(q_{LC}) = Log_{e}\left(\frac{q_{v}}{q_{c}}\right) + \frac{Log_{e}(QC)}{Log_{e}(q_{c})} + Log_{e}\left(\frac{Log_{e}(QC)}{Log_{e}(\pi_{A})}\right).$$
(14)

On substitution for $q_v = 5995$, $q_c = 28$, QC=70.44911244, and $\pi_A = 3.141154762$ in equation (14), we get,

$$Log_{e}(q_{LC}) = 7.9563983045 \tag{15}$$

and,

$$(q_{LC}) = 2853.775988$$
 letters per chapter (16)

For $Log_e(q_c) = Log_e(28) = 3.332204510175203923939816986$, note that the sum of the first 28 digits is 114.

Therefore,

Total number of chapters =
$$\frac{\text{Total Letters Count of the Quran}}{q_{LC}}$$
$$= \frac{325384}{2853.7759871} = 114.01876 \approx 114$$
 (17)

Miraculously, in a remarkable alignment, this outcome so accurately matches the total number of chapters in the Quran with insignificant decimal values. Such an extraordinary concurrence unequivocally demonstrates that the Quran is indeed a divine revelation, inspired by a Creator.



3. Quranic Golden Ratio

One of the most important themes of this work is to establish whether the Quran was crafted in accordance with the principles of the Golden Ratio. The present work determines that the Golden Ratio seems to manifest in many mathematical aspects of the Quran. As already proven by (Al-Faqih, 2017), the Golden Ratio has been determined as the ratio between the physical design of the Quran (114) and the mathematical design of the Quran (QC = 70.44911244). Indeed, there are innumerable living and non-living entities in nature that have been observed to follow a pattern associated with the Golden Ratio (İlden and Bostancı, 2022; Wiley, 2022; Mathaiyan, 2023). It is recognized that the concept of the Golden Ratio exhibits an interesting theological trajectory (Al-Faqih, 2017). With respect to the Quran, this work has revealed many mathematical features in the Quran that have a connection with the Golden Ratio. However, according to Al-Faqih Quranic Theory (Al-Faqih, 2017), the Quranic Golden Ratio is defined as the ratio between the physical structure of the Quran and the mathematical design of the Quran (Quran Constant = 70.44911244). The Quran is structured physically into 114 chapters.

Mathematically,

Golden Ratio =
$$\frac{114}{\text{Quran Constant}} = \frac{114}{70.44911244} = 1.618189301$$
 (18)

This result provides compelling numerical evidence that the Quran was designed and structured to follow the design principle of the Golden Ratio and exhibit a remarkable alignment with this mathematical phenomenon.

This work discovers a mathematical phenomenon (called the Letters-Abjad mathematical pattern) that recognizes the relevance between the ratio of the logarithmic value of the total letters of each chapter and the logarithmic value of the total Abjad (gematrical) value of that chapter. The summation of the ratios of these values across all 114 chapters (as represented in Table 4) gives the following result:

$$QC_{LA} = \sum_{n=1}^{114} \frac{\text{Log}_{e}[\text{total letters of chapter}(n)]}{\text{Log}_{e}[\text{total Abjad (Gematrical) value of chapter}(n)]} = 70.4569238.$$
(19)

This result is in close agreement with the Quran Constant (70.44911244) and within 99.99%. The average per chapter gives,

$$\frac{70.4569238}{114} = 0.61804319 \text{ or } 1.618009897$$
 (20)

This exhibits a remarkable resemblance to the Golden Ratio in a profound mathematical manner, approximating the Golden Ratio to within 99.999%. The Letters-Abjad mathematical pattern reveals a fascinating relationship between the total number of letters in a chapter and its corresponding Abjad value. This connection manifests through the Golden Ratio in a complex interplay. This numerical alignment implies a harmonious relationship between the linguistic composition of the chapter and its numerical value within the Abjad system, echoing a mathematical elegance embodied in the Quran through the Golden Ratio.

The current work also uncovers a unique mathematical pattern (the 114-mathematical pattern) that categorically proves that the total number of chapters in the Quran (114) is remarkably associated with the Golden Ratio. The pattern unfolds as follows:

$$\sum_{n=1}^{m=114} \frac{[n\&m]}{[m\&n]} = \frac{1114}{1141} + \frac{2113}{1132} + \frac{3112}{1123} + \dots + \frac{1132}{2113} + \frac{1141}{1114} = 184.4545836$$
 (21)

where n is incremented by one up to 114, m is decremented by 1 down to 1, and & is a concatenation operator (refer to Table 5).

The average per chapter:

$$\frac{184.4545836}{114} = 1.6180226632 \tag{22}$$

Miraculously, this finding (1.6180226632) is remarkably precise and aligning with Golden Ratio (Φ =1.618033989) within an extraordinary degree of 99.999%.



Furthermore, another interesting mathematical attribute of this pattern is given by the following formula:

$$QC_{114} = \frac{114}{1.6180226632} = \frac{114^2}{184.4545836} = 70.45636788$$
 (23)

This finding is very close to the Quran Constant (70.44911244) within 99.99%. Even more interestingly, there is extremely close agreement within 99.999% between this result (QC_{114} =70.45636788) obtained using the mathematical pattern (the 114-mathematical pattern) and the result (QC_{LA} =70.4569238) obtained using the Letters-Abjad mathematical pattern. This mathematical pattern reveals a unique connection between the number 114 and the golden ratio, which holds a deep meaning in the sense that structuring the Quran with 114 chapters is not simply a random choice but a purposeful selection by the Creator. Indeed, the number 114 appears to have much mathematical significance surrounding it. One may interpret these mathematical patterns as indicative of a divine significance encoded within the Quranic text, reinforcing and substantiating the conviction in a transcendent intelligence behind the Quran's composition. Indeed, this suggests a deliberate design and structure beyond what may be accredited to coincidental or human manipulation.

Table 4 The letters-abiad mathematical pattern

Chapter Number	Number of Letters in Chapter (a)	Chapter Abjad (Gematrical) Value (b)	Log _e (a)	Log _e (b)	Log _e (a)/Log _e (b)
1	146	10668	4.983606622	9.275003885	0.537315853
2	25638	1825809	10.1518309	14.41753373	0.704130893
3	14631	1057559	9.590897844	13.87147398	0.691411587
4	15961	1117810	9.677903526	13.92688197	0.694908131
5	11918	825295	9.385805141	13.62349618	0.688942473
6	12444	934557	9.428993858	13.7478279	0.685853353
7	14097	1055784	9.553717288	13.86979418	0.68881464
8	5325	376812	8.580167991	12.83950167	0.668263318
9	10879	738461	9.294589604	13.51232357	0.687860201
10	7448	536796	8.915700819	13.19337341	0.675771127
11	7655	538433	8.943114308	13.19641835	0.677692543
12	7148	498067	8.874587876	13.11848989	0.676494624
13	3474	240046	8.153061947	12.38858585	0.658110784
14	3487	264579	8.156797047	12.48589516	0.653280917
15	2821	180767	7.944846711	12.10496419	0.656329634
16	7666	558435	8.944550246	13.23289351	0.675933063
17	6505	474013	8.780326391	13.06899003	0.671844295
18	6449	496475	8.771680359	13.11528841	0.668813379
19	3858	282121	8.257904193	12.55009134	0.657995545
20	5309	388451	8.577158773	12.86992231	0.666449926
21	4951	351999	8.507344855	12.77138361	0.666125544
22	5219	365476	8.560061092	12.80895589	0.668287186
23	4381	344255	8.385032288	12.74913794	0.65769406
24	5620	414997	8.634086943	12.93602657	0.667445053
25	3812	293466	8.245909265	12.58951707	0.654982174
26	5542	393345	8.620110725	12.88244237	0.66913637
27	4703	335253	8.455955882	12.72264075	0.664638423
28	5815	400319	8.668196065	12.90001701	0.671952297
29	4227	275511	8.349247801	12.52638283	0.666533022
30	3412	269360	8.135053909	12.50380405	0.650606317
31	2145	156389	7.670894831	11.96010177	0.641373709
32	1548	111333	7.344719054	11.62028099	0.632060366
33	5644	378180	8.638348313	12.84312555	0.672604833
34	3532	255023	8.169619562	12.44910902	0.656241306
35	3182	245613	8.065265209	12.41151241	0.649821307
36	3009	217921	8.009363077	12.29188789	0.651597472
37	3816	261073	8.246958033	12.47255534	0.661208374



38	3011	228654	8.010027528	12.33996522	0.64911265
39	4765	365933	8.469052816	12.81020554	0.661117637
40	5007	362608	8.518592212	12.80107764	0.665458991
41	3305	237883	8.103191752	12.37953424	0.65456354
42	3456	245776	8.14786713	12.41217583	0.656441485
43	3533	255609	8.169902647	12.45140421	0.656143075
44	1464	97379	7.288927695	11.48636586	0.634572134
45	2040	154674	7.620705087	11.94907496	0.637765276
46	2628	192919	7.87397838	12.17002569	0.646997679
47	2383	181112	7.776115477	12.1068709	0.642289452
48	2480	183200	7.816013839	12.11833373	0.644974302
49	1519	102817	7.325807503	11.54070599	0.63477984
50	1493	107750	7.308542798	11.58756901	0.630722699
51	1537	118683	7.337587744	11.68421135	0.627991699
52	1317	94455	7.183111702	11.45587881	0.627024065
53	1429	107570	7.264730178	11.58589708	0.627032169
54	1462	119561	7.28756064	11.69158198	0.6233169
55	1610	129208	7.383989458	11.76917879	0.627400568
56	1718	125176	7.448916103	11.73747603	0.634626736
57	2500	189821	7.824046011	12.1538368	0.643751116
58	2018	32231	7.609862201	11.79230567	0.645324368
59	1937	130691	7.568895663	11.78059104	0.642488619
60	1546	100252	7.343426229	11.5154423	0.63770249
61	959	62738	6.865891075	11.0467226	0.621531953
62	774	60562	6.651571874	11.01142291	0.604061067
63	808	54462	6.694562059	10.90525849	0.613883849
64	1092	80877	6.995766156	11.30068476	0.619056836
65	1195	90345	7.085901464	11.41139095	0.620949847
66	1093	87103	6.996681488	11.37484661	0.615101173
67	1340	103141	7.200424893	11.54385226	0.623745413
68	1282	91820	7.156176637	11.42758542	0.626219483
69	1132	85003	7.031741259	11.35044183	0.619512559
70	973	71711	6.880384082	11.18039943	0.615396983
71	969	76142	6.876264612	11.2403553	0.611747977
72	1112	67393	7.013915475	11.11829643	0.630844439
73	865	68008	6.762729507	11.12738062	0.607755746
74	1040	88164	6.946975992	11.386954	0.610082029
75	690	50025	6.536691598	10.82027816	0.604114931
76	1091	74478	6.994849986	11.21825906	0.623523663
77	842	73352	6.735780014	11.20302505	0.601246537
78	790	53909	6.672032945	10.89505272	0.612391066
79	789	61276	6.670766321	11.02314353	0.605160071
80	560	47935	6.327936784	10.77760121	0.587137774
81	451	41730	6.11146734	10.63897557	0.574441336
82	353	27451	5.866468057	10.22015788	0.574009534
83	767	57835	6.642486801	10.96534941	0.605770647
84	463	34304	6.137727054	10.44301724	0.58773503
85	484	33891	6.182084907	10.43090477	0.592670055
86	274	17728	5.613128106	9.78290059	0.573769308
87	318	26438	5.762051383	10.18255765	0.565874664
88	404	33258	6.001414878	10.41205062	0.576391251
89	597	49088	6.391917113	10.80136988	0.591769116
90	359	21180	5.883322388	9.960812619	0.590646829
91	273	20288	5.609471795	9.917784857	0.565597245
92	336	29703	5.81711116	10.29900333	0.564822728
93	188	14137	5.236441963	9.556550753	0.547942673
94	126	13741	4.836281907	9.528139343	0.507578839
95	180	11503	5.192956851	9.35036315	0.555374884
96	305	21574	5.720311777	9.979244165	0.573220946
			·		



97	136	7852	4.912654886	8.968523555	0.547766291
98	419	28989	6.03787092	10.27467173	0.587646115
89	182	17503	5.204006687	9.770127574	0.532644702
100	191	14669	5.252273428	9.593491702	0.54748298
101	184	11094	5.214935758	9.314159701	0.559893316
102	148	12323	4.997212274	9.419222714	0.530533402
103	94	5916	4.543294782	8.685415824	0.523094677
104	158	6831	5.062595033	8.829226355	0.573390559
105	120	6407	4.787491743	8.765146422	0.546196437
106	96	7052	4.564348191	8.861066544	0.515101446
107	138	10190	4.927253685	9.229162126	0.533878766
108	67	4306	4.204692619	8.367764678	0.502486958
109	122	5002	4.804021045	8.517593111	0.564011568
110	103	7280	4.634728988	8.892886141	0.521172645
111	105	6352	4.65396035	8.756525003	0.531484847
112	73	2541	4.290459441	7.840312983	0.547230634
113	95	9702	4.553876892	9.180087329	0.496060302
114	104	5829	4.644390899	8.670600738	0.53564811
Total	325384	23506544			70.45692383

 Table 5 The 114-mathematical pattern

Chapter	Chapter Number	in c&d	d&c	c&d/ d&c
Number (c)	Reverse Order (d)			
1	114	1114	1141	0.976336547
2	113	2113	1132	1.866607774
3	112	3112	1123	2.771148709
4	111	4111	1114	3.690305206
5	110	5110	1105	4.624434389
6	109	6109	1096	5.573905109
7	108	7108	1087	6.539098436
8	107	8107	1078	7.520408163
9	106	9106	1069	8.518241347
10	105	10105	10510	0.961465271
11	104	11104	10411	1.066564211
12	103	12103	10312	1.173681148
13	102	13102	10213	1.282874767
14	101	14101	10114	1.394206051
15	100	15100	10015	1.507738392
16	99	1699	9916	0.17133925
17	98	1798	9817	0.183151676
18	97	1897	9718	0.195204775
19	96	1996	9619	0.207505978
20	95	2095	9520	0.220063025
21	94	2194	9421	0.232883983
22	93	2293	9322	0.245977258
23	92	2392	9223	0.259351621
24	91	2491	9124	0.273016221
25	90	2590	9025	0.286980609
26	89	2689	8926	0.301254761
27	88	2788	8827	0.315849099
28	87	2887	8728	0.330774519
29	86	2986	8629	0.346042415
30	85	3085	8530	0.361664713
31	84	3184	8431	0.377653896
32	83	3283	8332	0.394023044
33	82	3382	8233	0.410785862
34	81	3481	8134	0.427956725
35	80	3580	8035	0.445550716



36	79	3679	7936	0.463583669
37	78	3778	7837	0.482072222
38	77	3877	7738	0.501033859
39	76	3976	7639	0.520486975
40	75	4075	7540	0.540450928
41	74	4174	7441	0.560946109
42	73	4273	7342	0.581994007
43	72	4372	7243	0.603617286
44	71	4471	7144	0.625839866
45	70	4570	7045	0.648687012
46	69	4669	6946	0.67218543
47	68	4768	6847	0.696363371
48	67	4867	6748	0.721250741
49	66	4966	6649	0.74687923
50	65	5065	6550	0.773282443
51	64	5164	6451	0.800496047
52	63	5263	6352	0.828557935
53	62	5362	6253	0.857508396
54	61	5461	6154	0.887390315
55	60	5560	6055	0.918249381
56	59	5659	5956	0.950134318
57	58	5758	5857	0.983097149
58	57	5857	5758	1.01719347
59	56	5956	5659	1.052482771
60	55	6055	5560	1.089028777
61	54	6154	5461	1.126899835
62	53	6253	5362	1.16616934
63	52	6352	5263	1.206916207
64	51	6451	5164	1.249225407
65	50	6550	5065	1.293188549
66	49	6649	4966	1.338904551
67	48	6748	4867	1.386480378
68	47	6847	4768	1.436031879
69	46	6946	4669	1.487684729
70	45	7045	4570	1.541575492
71 70	44	7144	4471	1.597852829
72	43	7243	4372	1.656678866
73	42	7342	4273	1.718230751
74	41	7441	4174	1.782702444
75	40	7540	4075	1.850306748
76	39	7639	3976	1.921277666
77	38	7738	3877	1.995873098
78	37	7837	3778	2.074377978
79	36	7936	3679	2.15710791
80	35	8035	3580	2.244413408
81	34	8134	3481	2.336684861
82	33	8233	3382	2.434358368
83	33 32	8332	3283	2.537922632
84	31	8431	3184	2.647927136
85	30	8530	3085	2.764991896
86	29	8629	2986	2.889819156
87	28	8728	2887	3.023207482
88	27	8827	2788	3.166068867
89	26	8926	2689	3.31944961
90	25	9025	2590	3.484555985
91	24	9124	2491	3.66278603
92	23	9223	2392	3.855769231
93	22	9322	2293	4.065416485
93 94	21	9421	2194	4.293983592
74	41	9421	4194	4.273703372



95	20	9520	2095	4.544152745
96	19	9619	1996	4.819138277
97	18	9718	1897	5.122825514
98	17	9817	1798	5.459955506
89	16	9916	1699	5.836374338
100	15	10015	15100	0.663245033
101	14	10114	14101	0.717254095
102	13	10213	13102	0.779499313
103	12	10312	12103	0.85202016
104	11	10411	11104	0.937590058
105	10	10510	10105	1.040079169
106	9	1069	9106	0.117395124
107	8	1078	8107	0.132971506
108	7	1087	7108	0.15292628
109	6	1096	6109	0.179407432
110	5	1105	5110	0.216242661
111	4	1114	4111	0.270980297
112	3	1123	3112	0.360861183
113	2	1132	2113	0.535731188
114	1	1141	1114	1.024236984
Total				184.4545836

4. Human Body Golden Ratio

Countless living and non-living entities are engineered according to the fundamental principle of the golden ratio, and the human body is no exception to this harmonious design. The golden ratio is associated with many body features, particularly those related to perceptions of physical beauty and attractiveness (Vashi, 2015; Yalta et al., 2016; Dietrich and Knieper, 2022). Indeed, the most aesthetically pleasing designs are those that have been created in accordance with the golden ratio's mathematical properties. The human body has many physical attributes and features that are mathematically governed by the golden ratio. The most important feature is the navel (belly button), which is recognized to divide the human body into the Golden Ratio, whereby the distance from foot to navel divided by the distance from navel to head equals almost 1.618 with small variations among different people (Chan and Chang, 2009; Ajluni et al., 2010; Kleider et al., 2010; Henein et al., 2011; Visconti et al., 2015; Keshwala et al., 2017; Omerbašić, A., & Ibranović, 2020; Kumar, 2021; Yang and Lu, 2022). The belly button is commonly located in the center of the belly, with small variations among different people (Kumar, 2021; Kim et al., 2022). This indicates that, in relation to the human body, the belly is mathematically connected with the golden ratio. The question is: Does the Quran make any reference to the belly button (navel) in relation to the mathematical concept of the golden ratio?

Mathematically, Al-Faqih's theory has derived an important constant called the Quran Constant (QC=70.44911244) which represents how the Quran was mathematically designed and structured and proved to be significant in the computation of the primary statistics of the Quran, including the total number of words, verses, and chapters with phenomenal accuracy, as well as providing concrete evidence that the Quran was structured in accordance with the perspective of the Golden Ratio. The Quran was physically constructed in 6236 verses and categorized into 114 chapters.

A new concept called Quranic Center Verse (QCV) refers to the center verse of the Quran based on the golden ratio perspective. This implies determining which verse in the Quran is located in accordance with the golden ratio trajectory. This concept will be computed in compliance with various mathematical patterns uncovered in the current work, as well as the contribution of Al-Faqih's theory (2017).

The Quranic Center Verse (QCV) based on golden ratio computed via the Quran Constant (1.618189301) is

$$QCV = \frac{6236}{1.618189301} = 3853.69 \approx 3854 \tag{24}$$

The Quranic center verse (QCV) based on golden ratio computed via the Letters-Abjad mathematical pattern (1.618009897) is

$$QCV = \frac{6236}{1.618009897} = 3854.11734 \approx 3854 \tag{25}$$



The Quranic center verse (QCV) based on golden ratio computed via the 114-mathematical pattern (1.618022663) is

$$QCV = \frac{6236}{1.618022663} = 3854.086931 \approx 3854 \tag{26}$$

All these results evidently demonstrate that the Quranic center verse (QCV) is 3854 with trivial decimal values. The 3854th verse of the Quran is verse number 66 of chapter 37 (37.66). This verse reads, "Truly they will eat thereof and fill their bellies therewith." Surprisingly, this verse contains the word "bellies," suggesting that the Quranic center verse provides compelling evidence that the verse adheres to the golden ratio trajectory. This prediction in the Quran is another solid proof that reinforces the perception that the Quran is indeed a marvel of mathematical precision and is a suggestive example of intentional design that points to a divine source beyond human manipulation.

5. Solar Year Length

Celestial bodies like the sun and moon and their movements have been frequently mentioned in the Quran in various contexts, emphasizing the precision and order in the universe and often highlighting their regularity and purpose in the grand scheme of creation, as well as portraying that these celestial bodies are part of a systematic design rather than random occurrences (Awan, 2009; Anzaikhan and Roni, 2021; Haq and Hammad, 2022; Nasir et al., 2023; Yuhyi et al., 2023). In Surah Yaseen (36.38–40), it mentions:

"The sun runs its course for a term appointed. That is the decree of the Almighty, the All-Knowing. And the moon, We have measured for it mansions [to traverse] till it returns like the old shriveled date stalk. It is not for the sun to overtake the moon, nor does the night outstrip the day. They all float, each in an orbit."

The length of the solar year has undergone various estimations and interpretations. The pursuit to understand the precise length of the solar year has been a fascinating and captivating journey spanning millennia, marked by countless observations, calculations, revisions, and constant refinements and updates (Meeus and Savoie, 1992; McCarthy, 2009; Richards, 2013). From the ancient Egyptians' and Babylonians' simple observations of celestial patterns to the highly sophisticated calculations of modern astronomers, each era has contributed to refining our understanding and evolving knowledge of this fundamental unit of time. The length of a solar calendar year is typically estimated at 365.2425 days, effectively capturing the Earth's orbital period around the Sun (Seidelmann, 1992). To account for the difference between the calendar year of 365 days and the actual solar year of 365.2425, an extra day is added every four years (the leap year). However, this adjustment somewhat overcompensates for the actual solar year, so to refine the approximation further, years divisible by 100 are not leap years unless they are also divisible by 400.

Does the Quran encode within its structure any mathematical reference to an astronomical phenomenon such as the length of the solar year? There has been extensive investigation into exploring potential mathematical and structural patterns within the Quran, searching for correlations with astronomical phenomena such as the solar year. Yet, no mathematically-based framework has been derived from the Quranic perspective to predict the solar year. The current theory provides mathematical evidence that the length of the solar calendar year is encoded within the Quran's structure through the average number of letters per verse, which is the total number of letters in the Quran (325,384) divided by the total number of verses in the Quran (6,236).

Average number of letters per verse =
$$\frac{325384}{6236}$$
 = 52.1783194355 (26)

Quite remarkably and completely unexpectedly, 52.1783194355 represents the solar calendar weeks with unparalleled accuracy. Therefore,

Length of Solar Calendar Year =
$$52.1783194355 \times 7 = 365.24823605$$
 (27)

Miraculously, this result (365.24823605) aligns so closely with the present-day solar calendar year estimate (365.2425 days), falling within 99.998% accuracy. This is indeed astonishing for a Quranic numerical aspect to align so closely with natural phenomena such as the length of the solar year, and this cannot be coincidental but certainly a remarkable numerical parallel. This mathematical alignment between a Quranic numerical aspect (letters per verse) and the solar year provides concrete evidence of the supernatural origin of the Quran, implicating a divine order and harmony in the universe.



6. Universal Gravitational Constant (G)

Attempting to estimate the gravitational universal constant through the lens of the Quran can indeed pose a formidable challenge. Probing the Quran for potential scientific insights, including estimating the gravitational constant, can serve as a thought-provoking intellectual pursuit. The universal gravitational constant, G_{i} is a fundamental physical constant governing the gravitational attraction between two masses. Scientific experiments aimed at measuring this constant typically produce results with some degree of variance. Its measurement often presents an ongoing challenge for scientists to accurately quantify due to the weak force of gravity compared to other forces (Barukcic, 2015; Mercier, 2019; Mercier, 2020; Haug, 2023). Despite the challenges, efforts have been made to refine measurements and estimate G with greater precision. These efforts have led to a more accurate value for G, which is currently known to be approximately $6.674 \times 10 - 11$. Pursuing the determination of the universal gravitational constant through the lens of the Quran involves discovering mathematical correlations embedded within the Quran's structure and organizational framework that lead to the determination of this constant. When examined closely, the Quran reveals complex patterns and structures that have captivated scholars for centuries. Upon conducting an in-depth exploration of its organizational structure, an interesting correlation emerged: the presence of the universal gravitational constant G encoded within its organizational architecture. The mathematical formula embedded in the Quran to estimate the universal gravitational constant is based on two numerical values connected to the organizational structure of the Quran, along with the number 28, representing the total count of letters in the Arabic alphabet. The first numerical value is derived from the cumulative sum of verse numbers in the Quran, totaling 333,667, and the second numerical value is based on how the Quran was physically organized/arranged with regard to chapters (114) and verses (6,236).

6.1 The First Mathematical Pattern

The cumulative sum of verse numbers in the Quran, which is 333,667, defines the architectural blueprint of its composition. Essentially, it illustrates the physical layout of the verses across the 114 chapters or the distribution of verses within each chapter. The importance of this number lies in its capacity to expose any alterations in the physical arrangement of the Quran. This number holds fundamental significance as it forms a foundational element in the derivation of the Quranic constant, as proposed by the Quranic theory of Al-Faqih in 2017. The Quran Constant acts as a catalyst for revealing the underlying mathematical patterns used in computing the primary statistics of the Quran, including words, verses, and chapters.

The number 333,667 possesses substantial importance in Quranic numerology studies due to its influence on the Quran's organizational structure, yet it is often overlooked. It has unique attributes, making it arguably the most crucial six-digit prime number. Its digit sum is 28, mirroring the total Arabic alphabet, which is fundamental for forthcoming analyses. When each digit is multiplied by the next and summed, it equals $114 (3\times3 + 3\times3 + 3\times6 + 6\times6 + 6\times7 = 114)$, the total number of Quranic chapters. Notably, it is the largest prime factor of the palindrome 12345678987654321 and the greatest prime factor of 9-digit repdigits. Multiplying any 3-digit number by 333,667 and 3 yields the same 3-digit number replicated 3 times, emphasizing its mathematical uniqueness. This alignment with Quranic verse numbers, a prime number with such distinctive properties, advocates a divine design, as its complex mathematical features would not have been appreciated 1,400 years ago when the Quran was revealed.

The prime number 333667 exhibits a unique mathematical property that has not been documented in the literature. Remarkably, its position in the sequence of prime numbers is equal to 28693. Interestingly, both 333667 and 28693 share the same sum of digits, totaling 28, thus classifying 333667 as a Honaker prime. Additionally, and most importantly, the 333667th prime, 4772503, also shares the same sum of digits (28). This unique prime number stands out among a few prime numbers due to this distinct mathematical characteristic. The prime number 333667 reveals an interesting mathematical pattern, with dual significance. Notably, it holds significance in the context of Quranic numerical values, particularly regarding the correlation between the total number of chapters (114) and the total number of Arabic alphabets (28), emphasizing the interconnectedness between these fundamental elements. Moreover, it serves as a foundational element in a formula to be constructed based on the organizational architecture of the Quran to estimate the universal gravitational constant. This analysis explores an interesting mathematical pattern connected to the prime number 333667. It involves breaking down the number into its constituent digits, performing various operations, and examining the resulting factors and their powers. The process leads to fascinating connections between the numbers 28 and 114, highlighting the elegance and interconnectedness of mathematical patterns. Mathematically, the framing of the mathematical pattern unfolds as follows:

We have: 3+3+3+6+6+7 = 28 and $3\times3+3\times3+3\times6+6\times6+6\times7=114$.

The mathematical pattern is derived from the composition of the prime number 333667, which consists of three threes (333), two sixes (66), and one seven (7). The proposed mathematical pattern, q₃₃₃₆₆₇, is



$$q_{333667} = (3 \times 3^{28}) \times (2 \times 6^{28}) \times (1 \times 7^{28})$$
(28)

Converting to prime factors, we have

$$q_{333667} = (3 \times 3^{28}) \times (2 \times 6^{28}) \times (1 \times 7^{28}) = 2^{29} \times 3^{57} \times 7^{28}$$
(29)

The sum of the powers of the prime factors is 29+57+28=114.

Given, $q_{333667} = 2^{29} \times 3^{57} \times 7^{28} = (\text{Log}_e(28))^n$,

Therefore, $n = 113.9944879 \approx 114$.

These remarkable characteristics of this mathematical pattern serve as compelling evidence of its strong connection to the mathematical structure of the Quran. In alignment with how the Quran encodes the universal gravitational constant G, the second significance of this mathematical pattern lies in its interrelation with the universal gravitational constant G. The mathematical pattern and the universal gravitational constant are interconnected via the following:

$$Log_e(q_{333667}) = 137.2076528638694389$$
 (30)

The discovery of the significance of 137.2076528638694389 in estimating G further highlights the depth of understanding that can be achieved through mathematical exploration. This finding not only contributes to our understanding of numerical relationships but also underlines the relevance of mathematics in broader scientific inquiries. The interpretation of this finding highlights the elegance and interconnectedness inherent in these mathematical patterns and the universal gravitational constant.

6.2 The Second Mathematical Pattern

This mathematical pattern is derived from the Quran's organization into distinct chapters and verses, a defining characteristic of the text. The Quran's organization does not follow a strict chronological order but instead follows a sequence revealed to Prophet Muhammad over 23 years, organized based on thematic coherence and other considerations. Indeed, the structure of the Quran is meticulously organized, comprising 114 chapters of varying lengths, totaling 6236 verses. The numerical value under pursuit is derived from the logarithmic value of a mathematical sequence structured according to the physical organization/arrangement of the Quran.

The mathematical series, q₁₁₄, is:

 $q_{114} = 17228632004176512061657206875912910109111231211113431452159916128171111811019982\\013521112227823118246425772622727932888296930603134323033733454354536833718238883975\\40854154425343894459453746354738482949185045516052495362545555785696572958225924601\\36114621163116418651266126730685269527044712872287320745675407631775078407946804281\\29821983368425852286178719882689309020911592219311948958961997598899810011101111028\\103310491055106410771083109611031115112411351146.$

The bold digits represent the sequential chapter numbers from 1 to 114, and each chapter number is followed by its corresponding total number of verses. The pursued numerical value fundamental for estimating the universal gravitational constant G is

$$Log_e(q_{114}) = 1059.7331303354955379361617548.$$

The manner in which the Quran encodes the universal gravitational constant G using the numerical values (28, $Log_e(q_{333667})$, and $Log_e(q_{114})$) is truly commendable.

$$G = \left[\text{Log}_{e}(\text{Log}_{e}(28)) \sqrt{\frac{\text{Log}_{e}(q_{333667})}{\text{Log}_{e}(q_{114})}} \right]^{28}$$
(31)

The outcome of the equation (31) is numerically sensitive because it involves a high power (28). This exponentiation amplifies the sensitivity of the outcome. Therefore, it is anticipated that a small change within the



brackets will significantly affect the outcome of equation (31). This emphasizes the uniqueness of these numerical values encoded in the Quran to reveal the value of the universal gravitational constant G. Such meticulous numerical sophistications highlight the extraordinary precision encoded in the Quran, signifying a deliberate revelation of the universal gravitational constant G.

Given.

 $Log_e(Log_e(28)) = 1.20363410002467083403404444740205,$

 $Log_e(q_{333667}) = 137.2076528638694389$, and

 $Log_e(q_{114}) = 1059.7331303354955379361617548.$

On substitution in equation (31), we get

 $G = [0.4330972187935675190394806]^{28},$

$$G = 0.00000000066740745834527855 = 6.6740745834527855 \times 10^{-11}$$
 (32)

The result obtained by equation (32) aligns accurately with the value of the universal gravitational constant as established by the Committee on Data for Science and Technology, commonly referred to as CODATA 2014 ($G = 0.000000000667408 = 6.67408 \times 10^{-11}$) (Huang, 2020; Mercier, 2020; Nastasenko, 2020; Al-Fadhli, 2023). Remarkably, the correspondence of 16 digits between what the Quran encodes and what CODATA 2014 established is striking, indicating interesting parallels and a tremendous harmony between the Quran and scientific knowledge. Consequently, it is obvious that the equation's inherent structure is not subjectively arbitrary but rather carefully crafted by the Creator to yield reliable outcomes. This remarkable correlation is truly indicative of the divine inspiration behind the Quran.

7. Speed of Light

There have been extensive studies carried out by scholars attempting to link the Quran with scientific concepts, including references to the speed of light. The speed of light is a fundamental constant in physics and is considered one of the most important physical constants. Indeed, there are verses in the Quran, such as verse 4 of chapter 70 (Quran 70:4), that have been interpreted as containing references to this fundamental physical constant (Solihu, 2003; Seyal, 2006; Tawfik, 2008; Khan, 2015; Ghayur A., 2016; Riexinger, 2017; Faridah et al., 2022; Qureshi and Zahid, 2023). Quran 70:4: This verse reads, "The angels and the Spirit ascend to Him in a Day, the measure of which is fifty thousand years."

Exploring the potential correlation or connection between how the Quran was mathematically designed, structured, and configured with the speed of light is certainly a complex and multifaceted perspective. Indeed, the idea that the Quran may contain embedded mathematical references to the speed of light has sparked a vibrant flame of enthusiasm among many scholars and individuals (Sethi and Zafar, 2016; Rohmatulloh and Dwijayanto, 2021; Jawaid, 2022; Qureshi and Zahid, 2023). Attempting this potentially intriguing and rewarding endeavor is worth the challenge and certainly a captivating pursuit and a fascinating avenue of investigation. This has inspired the current work to explore deeper into the structure of the Quran to search for a hidden pattern or code that hints at something beyond human comprehension and understanding.

Exploring potentially new avenues of Quranic numerology can offer valuable insights. However, some of the numerical attributes of the Quran have remained unnoticed or underexplored. This work adopts a mathematical perspective rooted in verse 70.4, which has been recognized in the literature as having references to the speed of light. This verse spans from 70.4 to the subsequent verse 70.5 (inclusive of 70.4 and less than 70.5). In mathematical notation, it can be denoted as [70.4, 70.5). Is there any value within this range that holds a numerical connection or reference to the speed of light?

Furthermore, the numerical value of this verse (70.4), signifying its location within the Quran, closely aligns with the Quran Constant (70.44911244), which lies within the specified range of verse 70.4. The remarkable proximity of the Quran Constant (70.44911244) to verse number 4 in chapter 70 (70.4) of the Quran signifies a profound, deliberate, and meaningful mathematical correlation embedded within the Quran's structure. Therefore, it is possible that this correspondence is not a coincidence but rather a deliberate design that reveals a divinely intended mathematical order within the Quran, and this argument could provide great potential for substantiating a numerical connection between the Quran and the speed of light.



This work introduces a new mathematical aspect called the Quranic Center Chapter (QCP) which aims to identify the specific chapter that precisely aligns with the Golden Ratio within the 114 chapters of the Quran. Mathematically, Quranic Center Chapter (QC_{QCC})

$$QC_{QCC} = \frac{\text{Total Chapters of the Quran}}{\text{Golden Ratio}} = \frac{114}{1.61803398875} = 70.45587472$$
 (33)

Again, the proximity of the Quranic Center Chapter (QC_{QCC} =70.45587472) to verse number 4 in chapter 70 (70.4) signifies a deliberate and intentional mathematical connection embedded in the composition of the Quran. This inherent connection resonates with a mathematical theme, providing compelling proof that postulates a numerical perspective with potential significance in the context of the speed of light.

Furthermore, two numerical results have been derived through different mathematical patterns. First, the value of QCLA (70.4569238) has been computed using the Letters-Abjad mathematical pattern, as demonstrated by equation (19). Second, the numerical value of QC_{114} (70.45636787) has been obtained through the application of the 114-mathematical pattern as illustrated by equation (23). The remarkable alignment between these numerical values and the range of verse number 70.4 significantly enhances the impression that the Quran is crafted to establish an intentional and meaningful connection within the framework of many physical constants, such as the speed of light.

In the preceding sections, an array of numerical values—QCs (QC = 70.44911244, QC_{LA} = 70.4569238, QC₁₁₄ = 70.45636787, QC_{QCC} = 70.45587472)—were derived from a myriad of mathematical patterns, harmoniously aligning numerically with verse 70.4 range [70.4, 70.50). One remarkable aspect lies in the fact that the four mathematical patterns, originating from distinct mathematical domains, yield values that closely align, often within the impressive range of 99.99% to 99.9999%. After establishing many meticulously aligned numbers (QCs) with verse number 70.4, more significantly, all these numerical values are falling within the range of [70.4, 70.50).

Moreover, it is extraordinary that these numerical values exhibit a fascinating mathematical relationship with the total number of chapters in the Quran (114) and the golden ratio. I, personally, have become attached to the idea that this may prompt a thought-provoking inquiry and a contemplative exploration into the possibility that this correlation may provide a captivating estimate of the speed of light. Therefore, does the Quran encode a mathematical pattern purely attributed to a combination of its total chapters (114) and the golden ratio with insignificant decimal values, resulting in a value closely aligned with the verse number range [70.4, 70.5), and could it offer an estimate of the speed of light?

Furthermore, it is extraordinary that these numerical values exhibit a fascinating mathematical relationship with the total number of chapters in the Quran (114) and the golden ratio. I, personally, have become attached to the idea that this may prompt a thought-provoking inquiry and a contemplative exploration into the possibility that this correlation may provide a captivating estimate of the speed of light. Therefore, does the Quran encode a mathematical pattern purely attributed to a combination of its total chapters (114) and the golden ratio, resulting in a value closely aligned with the verse number range [70.4, 70.5), and could it offer an estimate of the speed of light?

Continuing along this trajectory, it took some time to come to the conclusion that the Quran encodes an estimate of the speed of light, specifically expressed in meters per microsecond (c = 299.792458 m/µs). Efficiently, the Quran encodes the speed of light within a highly precise framework; it is mathematically expressed as follows:

$$QC_{Light} Log_e(QC_{Light}) = 299.792458,$$
 (34)

where $QC_{Light} = 70.45657$.

Remarkably, this numerical value (70.45657) falls within the range of verse number 70.4: [70.4, 70.50). Therefore, as anticipated and speculated, a specific value determining the speed of light falls within the range of verse 70.4. It is mind-blowing to observe the numerical proximity between QC_{Light} (70.45657) and both QC_{LA} (70.4569238) and QC₁₁₄ (70.45636787), each originating from diverse mathematical frameworks. The remarkable alignment points to something transcendent that defies the boundaries of human intelligence. Indeed, this suggests that such a numerical convergence between them might not be easily explained by chance. A divine involvement seems to be at play, orchestrating this underlying order and implausible connection.

Furthermore, the phenomenon of the verse number 70.4 range suggests that additional numerical values falling within this range could unlock further secrets of the universe. This finding opens new avenues and frontiers for researchers, academic scholars, and individuals to pursue innovative research directions that offer potential for new insights and perspectives, and could lead to the discovery of new scientific knowledge.

Further, QC_{Light} can be mathematically written as follows:



$$QC_{Light} = 70.45657 = \frac{114.001125}{1.61803398875}$$
(35)

It is truly remarkable to see that the speed of light can be determined through a simple interplay of the golden ratio (1.61803398875) and a value equal to 114.001125, which approximates the total number of chapters in the Quran (114) to an extraordinary precision. The novelty of the numerical value, QC_{Light} , established in the current work to provide an estimate of the speed of light holds surprising consequences. Notably, this numerical value (QC_{Light}) can be calculated using a mathematical formula that incorporates the interplay between the total number of chapters (114) in the Quran and the golden ratio approximated to within 99.999%. The newly discovered mathematical framework that underpins the speed of light is incredibly impressive. The fundamental core of this framework hinges on two defining numerical elements with remarkable accuracy: the total chapters in the Quran and the golden ratio. The Quran emerges as incomparable in its structure, and encoding the speed of light through the incorporation of two constants provides compelling evidence that challenges conventional beliefs. The revelation of their interconnection in determining the speed of light suggests a deliberate design rather than a product of randomness.

The most amazing discovery is the mathematical alignment and harmony between QC_{Light} and the mathematical pattern (the 114-mathematical pattern). The numerical alignment unfolds as follows:

$$\sum_{n=1}^{m=114} \frac{[n\&m]}{[m\&n]} * QC_{Light} = 184.4545836 * 70.45657 = 12996.037281234252 = (114.000163514068)^{2}$$

$$\approx (114)^{2}$$

$$\sum_{n=1}^{m=114} \frac{[n\&m]}{[m\&n]} / QC_{Light} = 184.4545836/70.45657 = 2.6179898283439 == (1.618020342376)^{2}$$
(37)

This value approximates the golden ratio to within 99.999%.

$$\sum_{n=1}^{m=114} \frac{[n\&m]}{[m\&n]} - QC_{Light} = 184.4545836 - 70.45657 = 113.9980136 \approx 114$$
 (38)

It is extremely extraordinary to see the numerical connection between the mathematical pattern (the 114-mathematical pattern) and the mathematical pattern of QC_{Light} , as it has been manifested in an elegant mathematical fashion as shown in Equations (36, 37, 38). Fundamentally, these mathematical aspects are numerical patterns that originated across different mathematical domains, and both patterns connect to 114 in different ways. The numerical link uncovered between the 114-mathematical pattern and the mathematical pattern of QC_{Light} demonstrates the presence of a mathematical miracle in considering the total number of Quranic chapters to be 114. However, the remarkable mathematical findings can never be merely coincidental. They indeed provide concrete evidence that the structuring of the Quran into 114 chapters is undoubtedly intentional and serves a meaningful purpose. This phenomenon transcends earthly justification and mathematical explanations.

8. The Planck Constant (h)

Determining the numerical value of a fundamental constant like the Planck constant from the Quran presents a significant challenge and is indeed a highly ambitious undertaking. Examining the Quran for potential hidden scientific correspondences and themes, like the value of the Planck constant, offers an intellectually inspiring pursuit. The Planck constant (*h*) is a fundamental physical constant governing the quantum world, where energy comes in discrete packets rather than continuously. Additionally, it influences the behavior of matter and energy at the atomic and subatomic levels. Measuring the Planck constant experimentally demands high-precision instrumentation due to its incredibly small value. Over the years, scientists have developed various techniques to measure the Planck constant, each tailored to overcome limitations and enhance precision. This ongoing pursuit of precision has led to remarkable progress over time. Decades of meticulous scientific investigation have yielded a refined value for the Planck constant, which is currently estimated to be approximately 6.626×10⁻³⁴ (Eichenberger et al., 2011; Wood, 2017; Kotabage, 2019; Moorthy and Sankar, 2023).

Determining the Planck constant from the Quran involves a deep analysis of the Quran's structure and organization to uncover hidden mathematical connections. A thorough examination within the organizational



framework of the Quran revealed a thought-provoking link between the Quran and the Planck constant. The structure of the Quran holds a mathematical relationship connected to the value of the Planck constant. This relationship is based on two numerical properties of its organizational structure, along with the numbers 28 and 114, representing the total number of letters in the Arabic alphabet and the total number of chapters in the Quran, respectively. Interestingly, the current theory shows that the same key numerical value crucial for calculating the Planck constant also plays a role in estimating the universal gravitational constant. This intriguing value is Loge (q114).

 $Log_e(q_{114}) = 1059.7331303354955379361617548$, where

 $q_{114} = 17228632004176512061657206875912910109111231211113431452159916128171111811019982\\013521112227823118246425772622727932888296930603134323033733454354536833718238883975\\40854154425343894459453746354738482949185045516052495362545555785696572958225924601\\36114621163116418651266126730685269527044712872287320745675407631775078407946804281\\29821983368425852286178719882689309020911592219311948958961997598899810011101111028\\103310491055106410771083109611031115112411351146.$

The current theory has also discovered a mathematical pattern that corresponds to the order of verses in each Quranic chapter. This pattern holds a connection to the fundamental principle of the Planck constant. The second numerical property found to be crucial for estimating the Planck constant is based on the following mathematical pattern:

 $q_v = 728620017612016520675129109123111435299128111110981351127811864772279388696034307354\\45831828875855453895937353829184560496255789629222413141111181212305252442828205640315\\040464229193625221719263020152111881958811118395473635456.$

This mathematical pattern corresponds to the order in which each chapter's verses appear in the Quranic scripture. By following this sequence, one can navigate through the Quranic text in the order the verses appear within each chapter. For example, the first number, "7," refers to the number of verses in chapter 1 of the Quran. The second number, "286," refers to the number of verses in chapter 2, followed by "200," which refers to the number of verses in chapter 3, and so on. The second numerical value under pursuit is obtained by applying the natural logarithmic function to the mathematical sequence (q_v) . This calculation yields the following numerical value:

 $Log(q_v) = 522.370213188939624526539927577570774513604360.$

The relationship crafted to estimate the Planck constant is:

$$\hbar = \left[\frac{1}{\text{Log}_{e}(\text{Log}_{e}(28))} \left[\frac{\text{Log}_{e}(28)}{\text{Log}_{e} \left[\hbar \left(\frac{\text{Log}_{e}(q_{114})}{\text{Log}_{e}(q_{v})} \right)^{114} \right]^{2} \right]^{114}$$
(39)

This groundbreaking relationship for estimating the Planck constant demonstrates a remarkable ability to predict the value of \hbar with incomparable precision. The novel mathematical relationship for predicting the Planck constant is very sensitive due to a high exponent (114). This exponentiation makes its outcome extremely sensitive to small numerical changes, amplifying the impact of even extremely small alterations within the brackets. This emphasizes the distinctiveness of the Quranic numerical values, revealing the value of the Planck constant with extraordinary accuracy. This meticulous numerical relationship signifies a deliberate revelation of the Planck constant in the Quran, suggesting incredible precision and potentially divine origin.

Where,

 $Log_e(28) = 3.332204510175203923939816986359532865788,$

 $Log_e(Log_e(28)) = 1.20363410002467083403404444740205,$

 $Log_e(q_{114}) = 1059.7331303354955379361617548$, and

 $Log(q_v) = 522.370213188939624526539927577570774513604360.$



On substitution in equation (39), and solving the equation, we get,

$$\hbar = 6.6260880987518 \times 10^{-34} \tag{40}$$

The result obtained by equation (39) aligns remarkably with the value of the Planck constant accepted today, as given by CODATA 2017 ($6.62607015 \times 10^{-34}$) (Bileska, 2020; Ehtesham et al., 2020; Alekseevich, 2021). Strikingly, the correspondence of 38 digits between what the Quran encodes and what CODATA 2017 established is extraordinary, highlighting fascinating parallels and a compelling correlation between the Quran and scientific knowledge. Consequently, it is clear that the equation's structure is not arbitrarily subjective but rather meticulously engineered and designed by a higher power to deliver reliable results for the incredibly small value of the Planck constant. This alignment, however, provides strong evidence for the supernatural influence behind the Quran and is indicative of the divine origin of the Quran.

9. Significance of the Numbers 28 and 114

As previously discussed, the numbers 28 and 114 hold significance in the context of the Quran's structure, with 28 representing the number of Arabic alphabets and 114 representing the total number of chapters. This theory posits that all mathematical relationships encoded in the Quranic structure for predicting fundamental physical constants like the universal gravitational constant, the speed of light, and the Planck constant are built upon numbers 28 and 114. These revelations emphasize that these numbers (28, 114) form the basis for unlocking hidden mathematical relationships within the text. Notably, the numbers 28 and 114 are integral components of these mathematical equations. Their presence as exponents in the equations is especially noteworthy, underscoring their significance. Furthermore, the importance of 28 and 114 as exponents is amplified since the universal gravitational constant and Planck constant values are infinitesimal. The incredibly small values of the universal gravitational constant and Planck constant pose a layer of difficulty to determine accurately. If these values can be accurately determined through mathematical correlations embedded within the Quranic text, it would challenge the idea that the Quran is merely a random text. The current theory proves that the Quran's hidden mathematical order is centered on numbers 28 and 114, serving as a cornerstone for unlocking the potential mathematical significance within the Ouran. Finally, the outcomes of the current theory provide strong evidence that the numbers 28 and 114 could have a great role to play in unlocking more revelations, and more scientific laws and constants.

10. Contributions and Concluding Remarks

This theory vigorously demonstrates that the Quran encodes within its structure a variety of mathematical patterns that correlate with modern scientific concepts. The current theory uncovers fundamental scientific knowledge encoded within the Quranic compositional structure, providing evidence that underscores the fact that the Quran serves as a reservoir of knowledge.

This theory establishes that the golden ratio manifests in various mathematical aspects of the Quran. In addition to the Al-Faqih's theory (2017) (1.618189301), which demonstrates the Quran's mathematical design and configuration in alignment with the golden ratio (1.6180339875), both the Letters-Abjad mathematical pattern (1.618009897) and the 114-mathematical pattern (1.618022663) have been revealed to correlate with the principles of the golden ratio with unparalleled accuracy.

The current theory provides compelling evidence that the structure of the Quran is intentionally designed to align the Quranic center verse (verse 3854) with the principles underlying the golden ratio. This verse contains the word "bellies", suggesting that the Quranic center verse adheres to the golden ratio trajectory. This prediction in the Quran is another solid proof that reinforces the perception that the Quran is indeed a marvel of mathematical precision.

The present theory also provides strong evidence indicating a remarkable numerical correlation between the average number of words per verse in the Quran and the length of the solar year. This fascinating harmony between the textual content of the Quran and natural phenomena like the solar year suggests a divine wisdom guiding its composition and authorship.

The current theory has uncovered and encoded a formula that holds the key to estimating the universal gravitational constant, G, through mathematical patterns. The mathematical patterns within the text are not coincidental but rather deliberately constructed by the Creator to determine this constant. Miraculously, the correspondence of 16 digits between what the Quran encodes ($G = 6.6740745834527855 \times 10^{-11}$) and what CODATA 2014 established ($G = 6.67408 \times 10^{-11}$) is generating remarkable parallels and a potential compatibility between the Quran and scientific knowledge.



This theory has also established that the Quran encodes the speed of light within a highly precise framework, linking the speed of light to two key elements—a value (114.001125) approximating the total chapters of the Quran to within 99.999% and the golden ratio (1.61803398875). The revelation of their interconnection in determining the speed of light was meticulously devised rather than randomly constructed.

This theory has demonstrated that the Quran encodes the value of the Planck constant ($6.6260880987518 \times 10^{-34}$) within its text through a highly complex mathematical relationship based on two mathematical patterns and the numbers 28 and 114, yielding a result remarkably close to the accepted value of the Planck constant ($6.62607015 \times 10^{\circ}-34$), as given by CODATA 2017. Miraculously, the correspondence of 38 digits between what the Quran encodes and what CODATA 2017 established is remarkable, emphasizing interesting parallels and a compelling link between the Quran and scientific knowledge.

Furthermore, the numerical correlation between the mathematical pattern (the 114-mathematical pattern (184.4545836)) and the QC_{Light} is potentially remarkable. Two mathematical patterns originating from seemingly divergent domains are numerically connected. However, the nature of this potential correlation is very challenging to explain or justify. More research is necessary to explore these seemingly different patterns, which are surprisingly linked through numbers.

The current theory offers substantial proof that the numbers 28 (Arabic letters) and 114 (chapters) form the cornerstone for unlocking the concealed mathematical frameworks within the Quranic structure, linking theoretically to fundamental physical constants.

Finally, the current theory provides compelling mathematical evidence that challenges conventional wisdom and beliefs, highlighting the Quran's unique structure and deliberate encoding of scientific constants. The results concluded in this theory suggest that the Quran offers a holistic and timeless perspective on the nature of reality, transcending the limitations of human understanding and revealing divine wisdom encoded within its sacred text.

Acknowledgement

The authors would like to thank Information Systems Department, Al al-Bayt University for the assistance rendered in this study as well as for providing author with the opportunity of getting necessary information relevant to this research.

Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

The author confirms sole responsibility for the following: study conception and design, data collection, analysis and interpretation of results, and manuscript preparation.

References

- Ahsan, Q., & Ahsan, S. (2020). The Concept of Material Transfer from One Place to Other at the Speed of Light and Reducing Causes of Earthquake: Develop based on the Hints of Quranic Verses. QURANICA-International Journal of Quranic Research, 12(1), 19-44.
- Akhtaruzzaman, M., & Shafie, A. A. (2011). Geometrical substantiation of Phi, the golden ratio and the baroque of nature, architecture, design and engineering. International Journal of Arts, 1(1), 1-22.
- Alekseevich, N. V. (2021). Physics And Maths. Editor Coordinator, 331.
- Al-Fadhli, M. B. (2023, March). On the Field Strength of Vacuum Energy and the Emergence of Mass. In Physical Sciences Forum (Vol. 7, No. 1, p. 50). MDPI.
- Al-Faqih, K. M. (2017). A mathematical phenomenon in the Quran of earth-shattering proportions: a Quranic theory based on gematria determining Quran primary statistics (words, verses, chapters) and revealing its fascinating connection with the golden ratio. Journal of Arts and Humanities, 6(6), 52-73.
- Al-Faqih, K. M. S., & Moghadam, T. M. K. (2023). Extended Summary Of "A Mathematical Phenomenon In The Quran Of Earth-Shattering Proportions: A Quranic Theory Based On Gematria Determining Quran Primary Statistics (Words, Verses, Chapters) And Revealing Its Fascinating Connection With The Golden Ratio". Mathematics and Society, 8(2), 1-31.
- Al-Kaheel, A. (2012). Secrets of Quran Miracle_some basic guidelines to numeric miracle. Available online at http://kaheel7.com/eng/Book-eng/Part%20-one.pdf.
- Al-Kaheel, A. (2017). Available online at http://www.kaheel7.com/ar/index.php/1/1690-2014-07 03-19-11-02>.
- Al-Kaheel, A.(2006). Ishraqat al-Raqam Sab`a fial-Qur'an al-Karim. Dubai: Dubai International Holy Quran Award. Available online at http://www.kaheel7.com/book/number_seven_in_quran.pdf.



- Anzaikhan, M., & Roni, M. (2021). The Study of Falak Science in the Qur'an: Analytical Study of Tafsir Al-Misbah. Fitrah: Jurnal Kajian Ilmu-ilmu Keislaman, 7(2), 181-198.
- Ajluni A., Martin C., Yalamarthy A., and Maleszewski J., A study on adult female human perception of the golden ratio in paintings using psychological survey, Art and Science in Paris, 2010.
- Atighetchi, D. (2007). The Koran and modern science. Islamic Bioethics: Problems and Perspectives, 327-351 Awan, N. M. (2009). Quran and Mathematics-I. Jihat al-Islam, 3(01), 39-59.
- Ayub, Ghayur. Knowing the Unknown: Through Science and Sufism. AuthorHouse, 2016.
- Aziz, R. M. (2019). Hahslm Equation In Quran Al-Hijr 15.87. Proceeding, Iconquhas, UIN Bandung.
- Bileska, M. (2020). Measuring Planck's constant using light emitting diodes. Journal of Physics & Astronomy, 8(3).
- Chan, J. Y. and Chang, G. H. The golden ratio optimizes cardiomelic form and function, Iranian Journal of Medical Hypotheses and Ideas 3 (2009), 1-5.
- Dietrich, P., & Knieper, T. (2022). (Neuro) Aesthetics: Beauty, ugliness, and ethics. PsyCh journal, 11(5), 619-627.
- Ehtesham, B., John, T., Yadav, S., Singh, H. K., Mandal, G., & Singh, N. (2020). Journey of kilogram from physical constant to universal physical constant (h) via artefact: a brief review. Mapan, 35, 585-593.
- Eichenberger, A., Baumann, H., Jeanneret, B., Jeckelmann, B., Richard, P., & Beer, W. (2011). Determination of the Planck constant with the METAS watt balance. metrologia, 48(3), 133.
- GENÇ, S. Y., & Hassan, S. Y. E. D. (2019). Quranic Principles of Universal Law on the Quranic Exegesis. Bilimname, 2019(39), 165-186.
- Haidar, Z. S. (2022). Perspective Chapter: Biomimetics–Bio-Inspired Tissular Engineering for Regenerative Oral, Dental and Cranio-Maxillo-Facial Solutions. In Biomimetics-Bridging the Gap.IntechOpen.
- Haq, I. U., & Hammad, M. (2022). The movements of stars in the light of Quranic Study. VFAST Transactions on Islamic Research, 10(2), 175-180.
- Hassan, A. El-Najjar. (2023). Islam: A Scientific View of God's Message to Humanity. http://www.aljazeerah.info/Books/Islam/Islam,%20A%20Scientific%20View%20of%20God's%20Message%20to%20Humanity,%20English%20with%20Arabic%20Verse%20Texts,%20By%20Hassan%20Ali%20El-Najjar.pdf.
- Huang, H. (2020). Comparison of three approaches for computing measurement uncertainties. Measurement, 163, 107923.
- İlden, S. Y., & Bostancı, E. (2022). Ideal Perception of Beauty and Beauty in Female Figures in Matthias Verginer's Sculptures. Art Time, (3), 17-33.
- Jamil, J. (2019). Purpose of the creation of man: Quran's true version of anthropic principle. International Journal of Islamic Thought, 16, 51-63.
- Jarrar, B. (2001). Numeric Miracles of the Holy Qur'an Chosen Examples. Al-Bireh: Noon Center For Qur'anic Studies & Research.
- Jawaid, Mahmood. (2022). "The Nature of the Angels-A Scientific Perspective."
- Karami S. (2023). 114chambers: https://114chambers.wordpress.com/2022/04/26/the-quran-a-divine-math-based-text-security-system/
- Kellenberger, J., & Kellenberger, J. (2015). The Eternal and the Everlasting. The Everlasting and the Eternal, 9-26.
- Khalifa, R. (1973). MIRACLE OF THE QURAN: Significance of the Mysterious Alphabets, Islamic Productions, St. Louis, Missouri.
- Khalifa, R. (1981). The Computer Speaks: God's Message to the World. Renaissance Productions International. Khan, A. A. (2015). Oada and Oadr Predestination. Defence Journal, 19(4), 35.
- Khan, M. I. (2016). Stylistic dimensions in translations of The Holy Quran into English with special reference of Sūrah Al-Fatiha. British Journal of Education, Society & Behavioural Science, 12(4), 1-9.
- M. Kleider, B. Rafaely, B. Weiss, and E. Bachmat, Golden-ratio sampling for scanning circular microphone arrays, IEEE transactions on audio, speech, and language processing 18 (2010), 2091-2098.
- Kotabage, C. (2019, May). Is a glowing LED meaningful to determine Planks constant accurately?. In Education and Training in Optics and Photonics (p. 11143_1). Optica Publishing Group.
- M. Y. Henein, G. R. Collaborators, Y. Zhao, R. Nicoll, L. Sun, A. W. Khir, K. Franklin, and P. Lindqvist, The human heart: application of the golden ratio and angle, 2011.
- Malik, Z. (2022). Rhetorical devices used in the Quran. Journal of Policy Research, 8(3), 563-568.
- Man J. (2002). Gutenberg: How one man remade the world with words. John Wiley & Sons Incorporated.
- Mathaiyan, V. (2023). Fluid Leaves: Effects of Fluid Flow on Leaf Shapes and Fibonacci Series. International Journal of Fluid Mechanics Research, 50(5).
- McCarthy, D.D.; Seidelmann, P.K. (2009). Time from Earth rotation to atomic physics. Weinhein: Wiley-VCH Verlag GmbH & Co. KGaA.



- Meeus, J.; Savoie, D. (1992). "The history of the tropical year". Journal of the British Astronomical Association. 102 (1): 40–42.
- سریده ریاضی از تناسبات بسیار شگفتانگیز در قرآن: نظریه قرآنی مبتنی بر تعیین آمار اولیه قرآن (کلمات، آیات، کیوند در قرآن: نظریه قرآن (کلمات، آیات، کیوند در قرآن: ۱۵-۱۵ سرورهها) و آشکار کردن ارتباط جذاب آن با نسبت طلایی. نشریه ریاضی و جامعه. (3(2), 1-31
- Moorthy, C. G., & Sankar, G. U. (2023). Planck's distribution and definition for temperature of electromagnetic waves. World Scientific News, 181, 18-31.
- Nasir, A. L. A. B. M., Hasibuan, H. W. S., Saifullah, N., & Nazara, R. A. P. (2023). Hisab Rukyat in the Light the Quran and Sunnah. Al-Hisab: Journal of Islamic Astronomy, 1(1), 24-31.
- Nastasenko, V. (2020). Analysis of the Processes of Gravity in the Framework of Curvature of Space and the Substantiation of the New Model. Journal of Applied Mathematics and Physics, 8(12), 2732.
- Omerbašić, A., & Ibranović. (2020). M. A Study of Morphometric Characteristics of the Student Population: A Golden Ratio Perspective. University of Travnik, 24.
- Orhani, S. (2022). Fibonacci Numbers as a Natural Phenomenon. Int. J. Sci. Res. Innov. Technol, 1, 7-13.
- Qureshi, H. A., & Zahid, M. S. U. (2023). Chronicles of the Divine Clock: A Comprehensive Analysis of Time Travel in the Quran. Jihat ul Islam, 17(1), 1-10.
- Richards, E.G. "Calendars". In Urban & Seidelmann (2013), p. 587.
- Riexinger, M. (2017). Between Science Fiction and Sermon: Eschatological Writings Inspired by Said Nursi. In Roads to Paradise: Eschatology and Concepts of the Hereafter in Islam (2 vols.) (pp. 1222-1266). Brill
- Rohmatulloh, D. M., & Dwijayanto, A. (2021). Physics Of Qur'an: Islamizing The Science And Its Contribution Towards Humanity. Religio Education, 1(2), 75-85.
- Seidelmann, P. K., ed. (1992). Explanatory Supplement to the Astronomical Almanac (2nd ed.). Sausalito, CA: University Science Books.
- Sethi, K. M., & Zafar, F. (2016). Quantum Existence of Parallel Worlds: Comparative Analysis of Photons with Derivatives Of Holy Scriptures. IJASOS-International E-journal of Advances in Social Sciences, 2(5), 450-460.
- Seyal, A. R. (2006). Poetic Stance of the Holy Qur'an: Surah 1 Through 114 with Philosophical Discernment in the Light of Modern Day Science. Authorhouse.
- Solihu, A. K. H. (2003). Understanding the Qur'ān in the Light of Historical Change. Islamic studies, 42(3), 393-413.
- $Taw fik, M.\ (2008).\ The\ Quran\ \&\ Modern\ Science: Picture\ Illustrated\ Science\ from\ the\ Quran.\ Author House.$
- Tunjay Seyidali. (2024). On the Harmony of Islam: Evolution Theory and Golden Ratio.
 - https://medium.com/@seyidalitunjay/on-the-harmony-of-islam-evolution-theory-and-goldenratio-27a80520aa62.
- Vashi, N. A. (2015). Objective aspects of beauty. Beauty and Body Dysmorphic Disorder: A Clinician's Guide, 17 43.
- Wiley, R. (2022, August). Science, Examining The Fingerprint of God. In Conference Series (Vol. 4, No. 2, pp. 15-23).
- Wood, B. M., Sanchez, C. A., Green, R. G., & Liard, J. O. (2017). A summary of the Planck constant determinations using the NRC Kibble balance. Metrologia, 54(3), 399.
- Yalta, K., Ozturk, S., & Yetkin, E. (2016). Golden Ratio and the heart: A review of divine aesthetics. International journal of cardiology, 214, 107-112.
- Yuhyi, R., Ardana, D., & Azhari, F. F. (2023). The Qur'an as A Foundation for The Development of Astronomy. Al-Hisab: Journal of Islamic Astronomy, 1(1), 32-41.

