# Brief explaination of the Sun and Earth in the Qur'aan using modern empirical laws of Physics

Hassaan Ahmed Mirza June 20, 2024

#### Abstract

### 1 Introduction

In this note we explore the motion of the celestial objects in the solar system and realise them through our current understanding of the Qur'aan and Newtonian celestial mechanics. We take the laws stated by the Qur'aan as being the absolute truth, and use natural laws in order to comprehend how Allah has allowed us human beings to manifestly observe them. As humans are created and contingent beings who have limited knowledge, any attempt to absolutely comprehend a theory of Everything is well out of bounds of achieving. This means that our laws of nature be it in a qualitative or a quantitative theory stray from the true creation of Allah (SWT). However, we must do to the best of our ability to gain a precise and unified theory of everything, whilst understanding that we can never transcend the limits of knowledge set by Allah (SWT), and all our understanding given to us by Him is a blessing that allows us to draw closer.

We are not verifying the validity of the Quraan using our contemporary understanding of natural laws, but rather the other way around. When the natural laws are laid out by the Qur'aan and are found inharmony with a scientific theory of nature, it can be seen as a victory in the progression of our understanding of the material empirical world. The scientific method for formulating and verifying natural laws is powerful as it allows us to ensure our desciption of natures mechanics is in line with what we observe. Once we have built a causal chain of events within a theory that ends up producing an observable that matches the observation of a reproducable experiment within a human defined uncertainty threshold we must accept this theory as being reality up to the degree of its prediction power.

### 2 Human Limits of Observation and the Scientific Method

It is important that we establish the epistemological basis of science and the Qur'aan.

## 3 Qur'aanic view of the Solar System

### 3.1 Orbit of Sun and Moon

55:5 - The sun and the moon follow a reckoning they move according to a strict calculation - (Tafsir al Jalalayn)

This verse tells us that the motion of the sun and the moon follows a path that is determined (reckoned) by a set of laws written in mathematics (calculations) that are constantly being precisely obeyed and observed by the mentioned celestial objects. These mathematical laws are

36:40 - It is not for the sun to overtake the moon, nor doth the night outstrip the day. They float each in an orbit. (Tafsir Ibn Kathir)

The latter part the verse states that the sun and the moon are both in an orbit. This implies that both the sun and the moon are not stationary, but through the command of Allah (SWT) trace out an elliptical path. This verse does not specify what is at the focus of each orbit.



Figure 1: This frog was uploaded via the file-tree menu.

Item	Quantity
Widgets	42
Gadgets	13

Table 1: An example table.

### 3.2 How to include Figures

First you have to upload the image file from your computer using the upload link in the file-tree menu. Then use the includegraphics command to include it in your document. Use the figure environment and the caption command to add a number and a caption to your figure. See the code for Figure 1 in this section for an example.

Note that your figure will automatically be placed in the most appropriate place for it, given the surrounding text and taking into account other figures or tables that may be close by. You can find out more about adding images to your documents in this help article on including images on Overleaf.

#### 3.3 How to add Tables

Use the table and tabular environments for basic tables — see Table 1, for example. For more information, please see this help article on tables.

### 3.4 How to add Comments and Track Changes

Comments can be added to your project by highlighting some text and clicking "Add comment" in the top right of the editor pane. To view existing comments, click on the Review menu in the toolbar above. To reply to a comment, click on the Reply button in the lower right corner of the comment. You can close the Review pane by clicking its name on the toolbar when you're done reviewing for the time being.

Track changes are available on all our premium plans, and can be toggled on or off using the option at the top of the Review pane. Track changes allow you to keep track of every change made to the document, along with the person making the change.

### 3.5 How to add Lists

You can make lists with automatic numbering ...

- 1. Like this,
- 2. and like this.
- ...or bullet points ...
  - Like this,
  - and like this.

#### 3.6 How to write Mathematics

E-TEX is great at typesetting mathematics. Let  $X_1, X_2, \dots, X_n$  be a sequence of independent and identically distributed random variables with  $\text{E}[X_i] = \mu$  and  $\text{Var}[X_i] = \sigma^2 < \infty$ , and let

$$S_n = \frac{X_1 + X_2 + \dots + X_n}{n} = \frac{1}{n} \sum_{i=1}^{n} X_i$$

denote their mean. Then as n approaches infinity, the random variables  $\sqrt{n}(S_n - \mu)$  converge in distribution to a normal  $\mathcal{N}(0, \sigma^2)$ .

### 3.7 How to change the margins and paper size

Usually the template you're using will have the page margins and paper size set correctly for that use-case. For example, if you're using a journal article template provided by the journal publisher, that template will be formatted according to their requirements. In these cases, it's best not to alter the margins directly.

If however you're using a more general template, such as this one, and would like to alter the margins, a common way to do so is via the geometry package. You can find the geometry package loaded in the preamble at the top of this example file, and if you'd like to learn more about how to adjust the settings, please visit this help article on page size and margins.

### 3.8 How to change the document language and spell check settings

Overleaf supports many different languages, including multiple different languages within one document.

To configure the document language, simply edit the option provided to the babel package in the preamble at the top of this example project. To learn more about the different options, please visit this help article on international language support.

To change the spell check language, simply open the Overleaf menu at the top left of the editor window, scroll down to the spell check setting, and adjust accordingly.

#### 3.9 How to add Citations and a References List

You can simply upload a .bib file containing your BibTeX entries, created with a tool such as JabRef. You can then cite entries from it, like this: [Gre93]. Just remember to specify a bibliography style, as well as the filename of the .bib. You can find a video tutorial here to learn more about BibTeX.

If you have an upgraded account, you can also import your Mendeley or Zotero library directly as a .bib file, via the upload menu in the file-tree.

#### 3.10 Good luck!

We hope you find Overleaf useful, and do take a look at our help library for more tutorials and user guides! Please also let us know if you have any feedback using the Contact Us link at the bottom of the Overleaf menu — or use the contact form at https://www.overleaf.com/contact.

### References

[Gre93] George D. Greenwade. The Comprehensive Tex Archive Network (CTAN). *TUGBoat*, 14(3):342–351, 1993.