

A Scientific Evidence on the Sun Movement in the Holy Quran

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Extended Abstract

Even though the scientific community thought that the Sun was the center of the Universe and that it was immobile until the 17th century, it has been clearly stated in the holy Quran, 14 centuries before, that it does really move in the Universe by respecting a precise orbit that was well defined (by the Creator); and in perfect concordance with the latest discoveries.

Hence, we can retrieve the related information in the following verse [36:38]:

[36:38] (وَالشَّمْسُ تَجْرِي لِمُسْتَقَرٍّ لَهَا ذَلِكَ تَقْدِيرُ الْعَزِيزِ الْعَلِيمِ)

This verse can be translated into: *“And the Sun moves for the fixed/stable course (orbit) assigned for it. That is the decree/design of the Almighty, the All-Knowing”* [36:38].

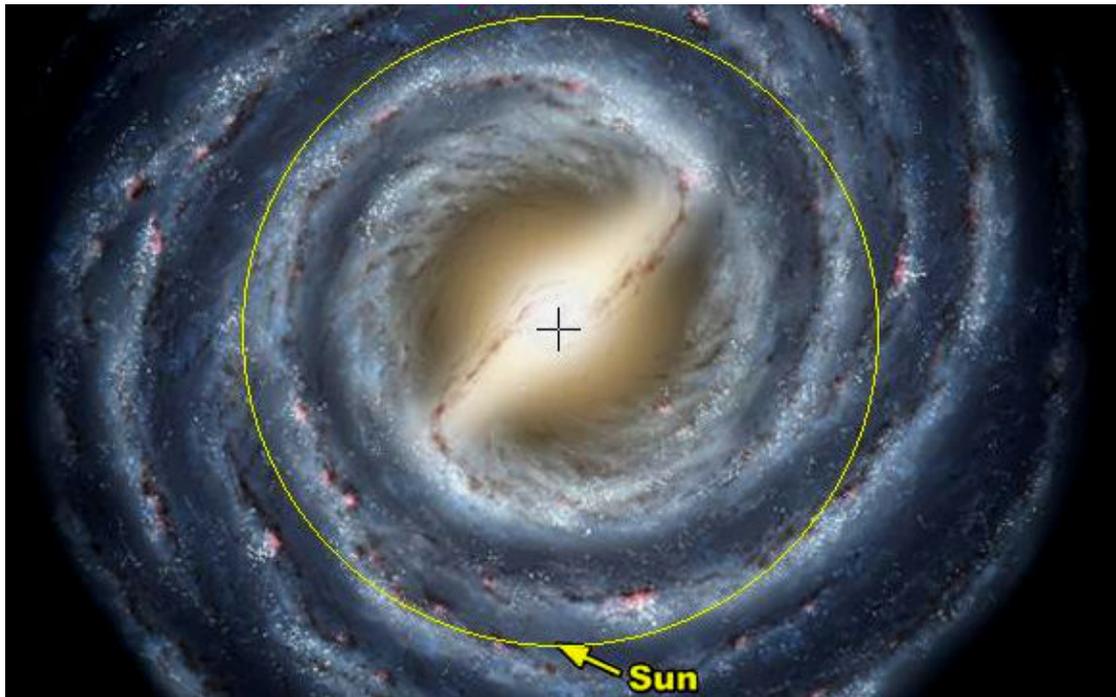


Figure 1: Image of the Milky Way. One can see the orbit of the Sun in yellow. NASA courtesy.

Before the 18th century the Sun has always been considered as the center of the Universe, and then considered to be at rest (i.e. fixed).

Thus, we can see the heliocentric model of Nicolaus Copernicus in his publication (On the Revolutions of the Celestial Spheres) in 1543, which was inspired from the assumptions of

Aristarchus. His hypotheses are that the fixed stars and the Sun remain unmoved, and that the Earth revolves about the Sun in the circumference of a circle, the Sun lying in the middle of the orbit.

Thereafter, Johannes Kepler accepted that theory and published his first two laws about planetary motion in 1609.

In the next century, Galileo Galilei (1564-1642) used the newly invented refracting telescope to further expand on Copernicus' theory, and in 1632 he published a book in which he openly stated that the Earth revolves around the Sun.

In the 17th century, the general idea that the sun was the center of the Universe and immobile was widely accepted.

Later on, Newton proposed a new heliocentric view of the solar system developed in a modern way (17~18th century). For Newton, it was not precisely the centre of the Sun that could be considered at rest, but rather the common centre of gravity of the solar system.

Recently (20~21th century), scientists have discovered that the Sun does orbit around the center of the Milky Way galaxy in a period of about 250 million years, and with a speed of 251 km/s. Moreover, the Milky Way itself is moving through the Universe within the local group of galaxies (cluster), so that the estimated global speed of the solar system is about 600km/s (<http://antwrp.gsfc.nasa.gov/apod/ap050508.html>) according to the latest scientific results of NASA.

However, 14 centuries before, in the holy Quran, it has been clearly stated that the Sun does really move in the Space by respecting a well-defined orbit. So, how could the Prophet give such precise scientific information in a period of time known by its limited scientific knowledge and instruments, beside the fact that the Prophet was illiterate?