Saturday, September 5, 2020

Submission the sky sample.


First part of data of what will arrives in December.

The great conjunction is a remarkable phenomenon that ancient sky watchers studied quite early on.

An often catastrophic astrological interpretation linked to their periodicity spread in Europe during the High Middle Ages and we find allusions to it in a large number of texts not only with scholarly pretension but also literary or popular.

Johannes Kepler is one of the first astronomers who defended the thesis that the Star of Bethlehem was a great conjunction.

From the approximate data, we can note that the orbital period of Saturn is close to 30 years while that of Jupiter is 12 years, so we will estimate that it takes about 20 years for it to catch up with Saturn in its race around of the Sun.

In the Zodiac band, the place where the new conjunction occurs shifts with each occurrence by about a third of a turn.

At the end of 60 years their initial configuration will be repeated in the sky from a heliocentric point of view, one having completed two turns and the other five.

Taking into account the exact periods, we obtain an average interval of 19.86 years between two successive conjunctions and a shift of $117^{\circ}$ from the initial position which corresponds roughly to 4 signs of the Zodiac.

However, the trine on which three successive conjunctions occur shifts at a rate of approximately $9^{\circ}$ in the direct direction every 59.6 years.

From the geocentric point of view, this periodicity undergoes variations due to the parallax induced by the changing position of the Earth observer, the Earth itself being in motion.

Thus, the minimum angular elongation can be observed a few weeks before or after the Sun-Jupiter-Saturn alignment.

In addition, to be completely precise, we must take into account all the parameters of the orbits of the planets, in particular their eccentricity.

Great conjunctions.

Past May 28, 2000 3:56:27 PM $1^{\circ} 09$ 'North $14.9^{\circ}$ West Taurus
to come up 21 December 2020 18:37:31 6 'South $30.1^{\circ}$ East Aquarius

As there are several celestial coordinate systems, we can define the major conjunctions in two different ways, depending on whether we take into
account the equality of the right ascents of the two planets.
(equatorial conjunction), or the equality of their longitudes ecliptic (ecliptic conjunction)

The upper planets Jupiter and Saturn move slowly in the Zodiac band, standing near the ecliptic line and the direction of their movements remains almost parallel to this line.

Thus, their angular distance is minimal during ecliptic conjunctions.

There are mentions and allusions to Grand Conjunctions and Trines not only in the works of Tycho Brahe or Kepler but also in those of Dante or Shakespeare.

Those are integral research in progress in this space.

Dont hesitate to flip on other Pdf:

VINTAGE ASTRONOMY: lights from the dark.
LUNAR DATABASES AND ARCHIVES and Analog Algorithms. etc

+ gallery As part of a Sky Samples project started in December 2019 but this one includes several data as:

Data art.

## Flickr

Video

## Patreon

This makes me think to the game Pong
fr.wikipedia.org/wiki/Pong
youtu.be/it0sf4CMDeM

Or, to Space War, by the way
youtu.be/3J6vo6WCeOE

