

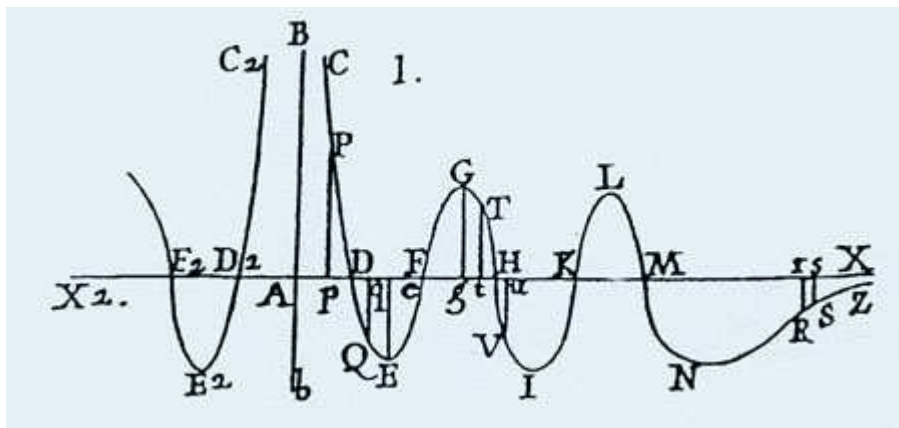
## 2029 encounter with asteroide Apophis- threats outside of the standard model

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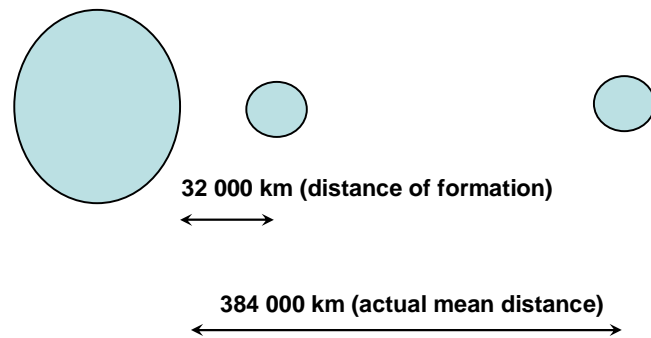
Why mankind would do better if it looked to the 2029 Apophis encounter as a threat

Keywords: non-gravitational perturbations, Allais effect, Weber bar experiment, unified field, spinning liquid field

Despite the fact, that „mater-irradiated” forces\* of repulsion in celestial mechanics in fact have been proposed by Kepler (1609), Newton (see Mathis 1), Bošković (Fig.1), Fishbach (1999), Canup (Fig.2) and others, mainstream astronomers seemingly live in a world without them. So-called non-gravitational perturbations are routinely explained with particles, waves and dark matter (Garcia-Salcedo et al, 2012).



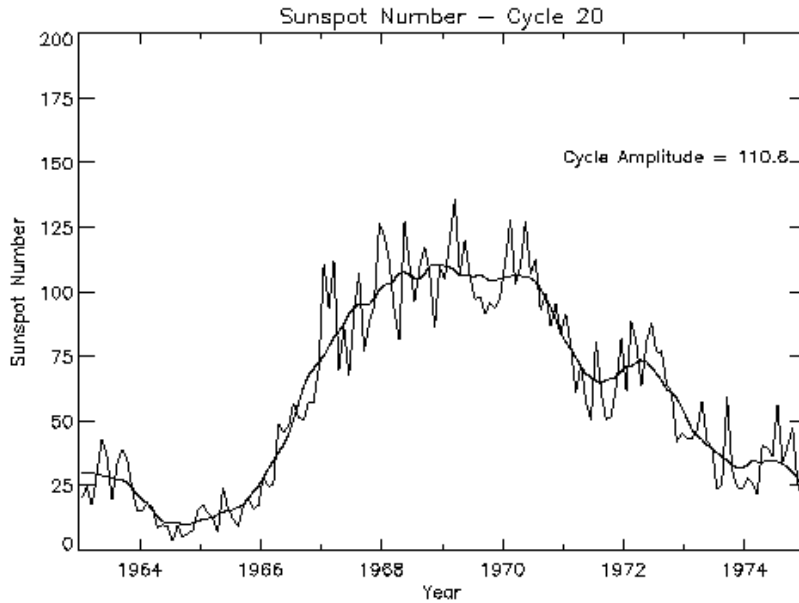
**Fig. 1. Boskovic curve** (1763) showing, that repulsion between material points get stronger in small distances. Credit:  
<http://www.croatia.org/crown/articles/10204/1/Rudjer-Boskovic-1711-1787-Croatian-polymath-and-the-Royal-Society-exhibition-in-London-until-15-Feb-2012.html>



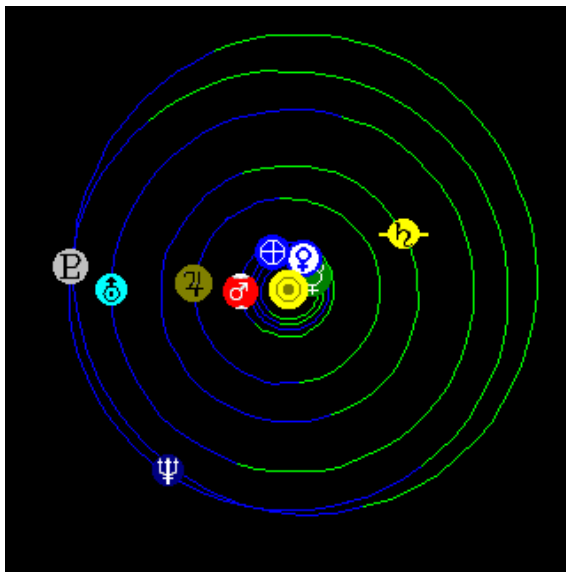
**Fig. 2. Historic changes of Earth-Moon distance.** Canup (2004) calculated, that the Moon formed at distance 5-6 Earth radiusses (approx. 32 000km).

Historically this has ensured the right climate for such misunderstandings and mistakes as these:

1. Discovery of Neptune has been wrongly attributed to anomalies in Uranus orbit (which in reality obviously are caused by Jupiter and Saturn).
2. Same for discovery of Pluto.
3. Mutual repulsion of Jupiter and Saturn has been masked by a thick layer of mathematics (Mathis2).
4. Lagrange points in reality depend on forces of repulsion, too (Fig.3) (cf.Mathis3).
5. Orbital resonances and the stability of the solar system has not been explained at all.
6. Wrong explanation for orbital anomaly of Mercury.
7. The unexplained Allais effect in fact is caused by shielding of „tidal” field of the Sun by the Moon during eclipse.
8. The unexplained and non-repeatable success of the Weber bar experiment (1968-1970) in fact was caused by the repulsive action of high solar activity (Fig.4) and influences from Jupiter and Saturn (Fig.5).



**Fig. 4. Solar activity and Weber bar results.** Best results: 1968-1970. No results: 1975.



**Fig.5 Solar System: 1969 Jan 13. Credit: Fourmilab server.** One can easily see special position of Jupiter and Saturn

9. Orbit of Trojan asteroids is heavily influenced by repulsion from the corresponding planet.

10. Periodic changes in Earth's orbit's eccentricity, which is thought to exist, in fact might be caused by an altered stream of „spinning-liquid field” of the Sun due to changes in position of solar axis or spin against ecliptic.

Previously in the solar „inertial motion” case we demonstrated, that Saturn and Jupiter can push the Sun out of the barycenter of the solar system (Alksnis, 2012A). As we have no information, whether the astronomers have upgraded their calculation tools in asteroid Apophis case or use the same wrong methodology (which needs dark matter for correction), we will try to outline potential risks which exist outside of the

standard model as well as comment on some doubtful mainstream ideas. (The orbit of Apophis is near to orbits of Venus and Earth).

Possible threats may come from:

A. Changes in Jovian planets, which are in progress now (might influence repulsion from them).

B. Changes in solar activity. More solar activity - more repulsion (as the Weber bar experiment had shown). Sun repulses the asteroid and Earth with different efficiency, because of different mass/surface square relation. Density of asteroid is thought to be 3.2 g/cm<sup>3</sup>, density of Earth- 5.5 g/cm<sup>3</sup>.

C. Changes in solar rotation means changes in repulsion force.

D. Repulsion from Jovian planets should depend from position of their rotation axis against asteroid.

Self rotation of the asymmetric asteroide might be a factor, which increases the uncertainty of astronomic calculations. But its importance is not related to gravity or photonic pressure. So parameters like albedo of asteroide or the Yarkovsky effect are not appropriate for calculation.

Keeping this all in mind, mankind would do better, if two spaceships with missiles, suitable for fast reaction in case of astronomer's failure were maintained.

\*- Why matter should emanate fields at all? Here we face, as it seems, the microcosm/macrocosm issue (cf. Alksnis, 2012B and 2012C). Movement of matter in microcosm result in changes in macrocosm.

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