

Unified Physics supports Caltech discovery on fringes of Solar System

by Peter Jakubowski (Duesseldorf, Germany, 22 January 2016)

Let us begin with a short introduction. "*Physics Essays*", an international journal dedicated to fundamental questions in physics, has recently (on 10 December 2015) published the first part of my new series of articles "Consequences of the unification in physics", entitled "Never more problems with physical equations" (Volume 28: No. 4, Pages 567-585, 2015; <http://dx.doi.org/10.4006/0836-1398-28.4.567>); (for the contents of the whole series see the [corresponding page](#) of the website of the Open Science Academy).

The second part of this series, entitled "Cosmic Hierarchy of the Solar System", being still in publication process (since October 2015), presents the definition and the main physical properties of the near and far cosmic environment of our Solar System, a perfectly quantized order called Cosmic Hierarchy of the Solar System. Only a few weeks later, and precisely two days ago, on 20th January 2016, an **exciting discovery by Michael Brown and Konstantin Batygin** from Caltech, Pasadena, has been announced in their article in *The Astronomical Journal*, **151**, 22, 2016: "Evidence for a distant giant planet in the Solar System". It is a highly exciting news. I feel myself simply forced to say: "**Well done, boys!** And congratulations to your courageous decision to publish the results of your detailed study of the hitherto 'unexplained clustering in orbital elements of a set of Kuiper Belt objects in the distant solar system'".

As they write in their article: "Orbital grouping in ω (*object's perihelion; P.J.*) is surprising because gravitational torques exerted by the giant planets are expected to randomize this parameter over the multi-Gyr age of the solar system. In other words, the values of ω will not stay clustered unless some dynamical mechanism is currently forcing the alignment. To date, two explanations have been proposed to explain the data." The authors have chosen the single really reasonable explanation from the point of view of the traditional interpretation of the structure of our Solar System. They "hypothesize that the observed structure of the Kuiper Belt is maintained by a gravitationally bound perturber in the solar system."

The calculated results are so fantastic, so extremely important, because they are almost independent of the actual interpretation of the "source" of the gravitational bound of the investigated Kuiper Belt objects. As the authors explain (for example below their Figure 2): the physical confinement of the orbits is clearly evident in their data; "It is extremely unlikely that the objects are so tightly confined purely due to chance." But the results are yet more exciting from the point of view of my Unified-Physics interpretation of the internal and external structure of the Solar System. Batygin and Brown have still not realized that the Keplerian trajectories of all known bodies inside the Solar System have to be recalculated very soon, because our Solar System is actually not a heliocentric but Venus-centered system (the fourth part of my mentioned series of articles presents the strongest evidence for this necessary paradigm change). For example, the true orbit of our Earth in the Solar System is not a Keplerian ellipse, but a beautiful rosette around the Venus and Sun simultaneously. Similarly, also the inclined orbit of Pluto is a result of its simultaneous revolution around the center of mass of the Solar System (in Venus) and around the center of mass of the cloud of debris of the broken Andrea-star (which the spacecraft "New Horizons" is going to cross at the end of 2016 or at the beginning of 2017); (some of those arguments can be found on the above cited website of the Open Science Academy: www.openscienceacademy.eu).

In a similar way, Brown and Batygin will have to reexamine their calculations, including the mass and

position of the remnants of Andrea star. I am sure that having done this, their results will show a perfect confirmation of a location of the center of mass of the second level of our Cosmic Hierarchy in a distance of 501 AU to Venus. The main conclusion from the observations by Brown and Batygin will then become a reversal of their expectation: It is not the supposed "perturber", which revolves our Sun (in about 20000 years), but it is the Venus-centered Solar System that is a satellite of this level-2 center of mass of our Cosmic Hierarchy. And it should be looked for on the opposite side of our Sun rather than actually supposed by Brown and Batygin, lying between the orbits of Sedna and for example 2007 TG422 (compare the picture of the involved orbits in their [Nature article](#) ; Nature 529, 266–267 (21 January 1016) :10.1038/529266a).

In an [explanatory video](#), Konstantin Batygin says a really true sentence: "History shows us that it is a bad idea to consistently say 'we have now reached the end of the Solar System and there is nothing beyond where we are already now' ". The Cosmic Hierarchy, to which our Solar System belongs, seems to be larger than our present generation of telescopes is able to see into the deep cosmos. Nevertheless, the pioneering calculatory work by Micheal Brown and Konstantin Batygin is **a milestone of the science of 21st century**.