A33.- Super-Kamiokande: Super-Proof for Neutrino Non-existence.

1.- Fantasia.

One can agree or disagree with the Walt Disney's philosophy used in his characters, but there is a world wide consensus that Fantasia is Disney's conception.

Twentieth century Physic's equivalent of Fantasia has been the Neutrino. During the last 67 years (1998-1931) some of the most fantastic explanations and experiments were invented involving Neutrinos: Pauli's creation to save SR's inability to explain energy and momentum conservation in the historic RaE experiments.[i]

And the largest wonder of the Neutrino World is the Super-Kamiokande (SK) Neutrino detector buried in Japan Yet it is not alone. Other exotic detectors can be found in different places all around the globe.

Hundred of millions of dollars have been and are constantly spend on the Neutrino "problem." The great difference between the two Fantasias is that the Disney Fantasia consistently provide profit to its investors, while Neutrino Fantasia spends money without positive results. Super-Kamiokande has made an exemption to this rule as will be show in this paper.

As will be proved further, the Super-Kamiokande Neutrino detector is the greater exotic wonders of 1998 year according to the paper's authors.

2.- The Paper.

The paper that contains the results obtained by the Super-Kamiokande Neutrino Detector is published in

http://xxx.lanl.gov

under the code: **hep-ex/9805021** v2, 1 Jul 1998

126 authors and 19 famous institutions support the conclusion shown in the paper submitted to Phys. Rev Lett. to be published, and publish they will!

The paper's authors publish their interpretation of the data, but not the data itself.. A scientific paper should publish the experimental data. The authors interpretation is interesting but may be incorrect or misleading, as it is in this case. They hide the data because Super-Kamiokande Collaboration is a Secret Society. [iii] They support the Neutrino hypothesis in order to sustain Special Relativity, but with no scientific basis.

Following the Abstract the paper states:

> **"The neutrino plays a crucial role in both astrophysics and particle physics. This report is on measurements of solar neutrinos that are produced in the core of the sun through nuclear reaction chains."**

If the readers of this paper wants to know more about the fantasies that follow, they need to go to the original paper where you will find **"Once upon a time a Super-Kamiokande Neutrino Detector ....."**

We heard it thousands of times**: The Neutrino exists.** The construction of the detector was designed to detect Neutrinos from the Sun because they exist there. They didn't construct the detector to try to detect something "**postulated as hypothesis**" due to the SR equation's failure to explain energy conservation, as a truly scientific endeavor should. The detector was made to detect the "qualities" of the Neutrino: Its daytime or nighttime flux, the annual flux variation taking account the Earth eccentricity, its mass, its magnetic field, its "oscillation" (See EndNote), etc.

3.- The Failures.

To obtain some of the data used in their paper, the author's' needed to "detect' the Neutrino flux and herein lies the first failure: They only "detected" 38% (**a 263 % smaller than expected**) of the Solar Neutrino flux predicted. This is not always true with other detectors. Some times they "detect" more Neutrinos, some time less, depending on "special Neutrinos" or Neutrinos emitted by different atomic reactions. But the average always is around 1/3 of the predicted flux.[ii]

The second failure, though small, is the **daytime flux** compared with the **nighttime flux**. At least the nighttime flux should be equal to the daytime flux, or slightly less. But here the contrary happens.

The nighttime flux is 2 % larger than the daytime flux.

Looking at Fig 3 in the original paper, the numbers of events don't follow the annual variation due to the Earth's eccentricity. **It is the contrary**. This means that when the Earth is far away from the Sun, the measured flux is larger - even though it should be smaller.

The expected variation is **7% maximum** and the measured variation is **26 % maximum**, that is **370 % larger**. They don't say this very clearly for tell the truth, would be to admit failure.

The first failure, the 1/3 value **(263 % smaller)** for Neutrinos detected, and the other failure, the 26% **(370 % larger**) of variation due to eccentricity are the most glaring failures in the paper up to this point. But they don't stop here.

The greatest failure will be shown after making a cross examination of Fig. 2 that follows.

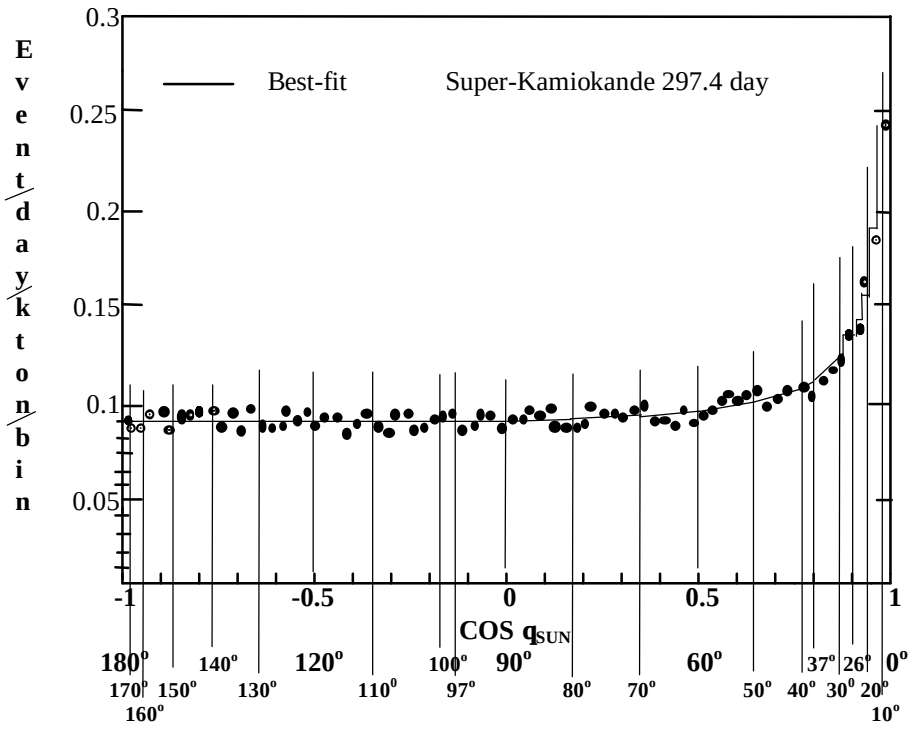

Fig. 2.- Plot of the cosine of the angle between the electron direction and a radius vector from the Sun. One obtains a clear peak from the solar neutrinos. The solid line shows the best fit to the data.

(In this original figure we added the ordinates mentioned in our text regarding the division in 97, 37 and 26 degree, and in intervals of 10 degree.)

They say clearly: **One obtains a clear peak from the solar neutrinos**. We will also show clearly that the curve as it is plotted in Fig. 2 is

misleading the reader or observer. We will show this in a few steps.

First, we will analyze a wide angular interval at two different positions. We will suppose that 37 degrees (cos 37 ≅ 0.8) is the interval where the signal event is coming from the Sun. This is not technically true, but we want to clearly show that even taking a wide theta angle there is more signal events when this same angle (37^o), or interval, is taken close to 90^o.

Counting, the events from theta = 0 to theta ≅ 37 degree (cos θ = .8) we have the following sum: **0.24 + 0.179 + 0.163 + 0.134 + 0.132 + 0.118 + 0.112 + 0.105 = 1.183** event/day.

Taking the same interval of 37 degrees from theta = 60 degrees to theta = 97 degrees we count 27 events. The average of the values is 0.095 and 27 x 0.095 = 2.565, that is, 2.565/1.183 = 2.17 times the value in the first interval, which "correspond to the Sun direction." That is to say, the interval between theta = 60 degrees and theta = 97 degrees contains 2.17 times more events than the interval between theta = 0 degrees (cos theta = 1) and theta = 37 degrees (cos theta = 0.8). We mention the last interval as the "Sun direction," evidently a very wide interval!

Looking Fig. 3 we cannot see the peak favoring the Sun direction! **It is the contrary**. **In ONE day there are more events in many other directions than from the Sun direction!**

What the Sun direction means? What is the angle "defined" as the Sun direction? 37 degrees, 26 degrees or less? Technically is theta = 0 but there, **there are no events**, and consequently our argument above makes sense.

As shown in Fig. 3, if we take the first interval of 10 degree (0-10 degree) as the Sun direction, which is closer to fact, there are 0.24 event/day while in the second interval (10-20 degrees) there are 0.2625 event/day, which is larger than in the first interval and it is not in the Sun direction.

In the third interval there are 0.4405 events and in the fourth interval 0.44 events, etc.

It is easy to see that all intervals that follow the first, contain more events than the first one. Simply put, there are more events in each interval than in the Sun direction.

Fig. 2 tries to mislead us and will mislead many Physicists. At least, it is accepted by 126 paper's authors.

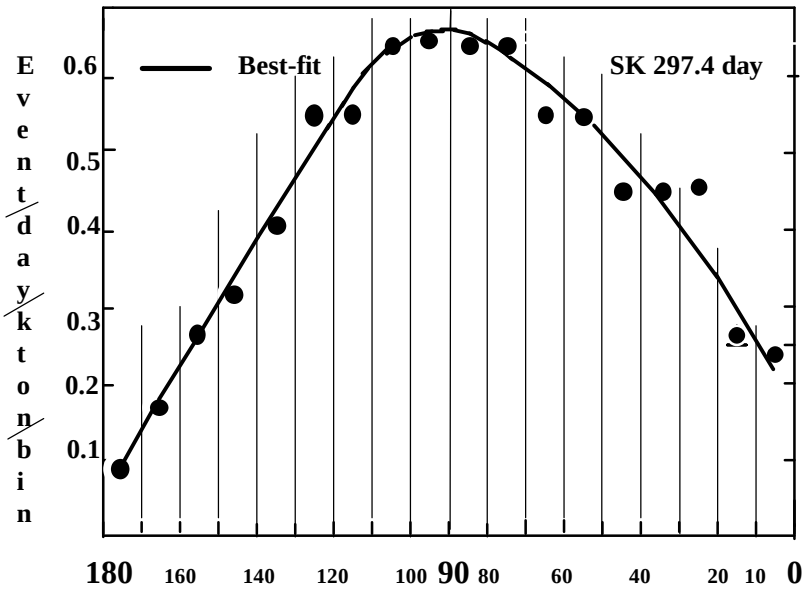

Fig. 3.- The 180^o has been divided in 18 interval of 10^o. In each interval the total quantity of event/day is shown. Clearly, the **"peak from the solar neutrinos"** disappears. The figure clearly shows that there are more events at any other interval, (except 160^o-180^o), than at 10^o. This is especially true around 90^o.

It is not true that 0.24 event/day have their origin from the Sun. Contained in the 0.24, is the summation of all the Neutrino-like reaction produced by the Rock (R), Cosmic Rays (C) and the Spallation (Sp) (Fig. 5), as remaining contamination after the application of all **special technique** to suppress them.[iii] The cosine function is chosen because the cosine compresses the first interval of 10^o that "correspond" to the "Sun direction" showing this as a peak. Clearly this peak doesn't exist as it is shown in Fig. 3 and Fig. 4 after expanding cosine of 10^o and 20^o.

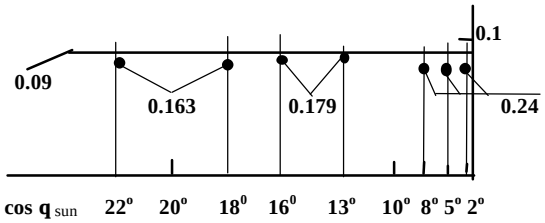

Fig. 4. Expanding the cos, and taking the same quantity of events at different angle the "peak" disappear.

To show the fallacy involving the use of cos theta we ask the following: Why is not used sin theta? This will of course show the "peak" at 90^o and the Neutrinos are coming from 90 degrees with respect to the Sun direction regarding the argument used in the original paper with respect to the cos theta! Of course, this is what Fig. 3 shows without Neutrinos!

The Neutrino change direction according to the trigonometric function used!

Want Neutrinos from the Sun? Use cos theta.
Want Neutrinos at 90^o? Use sin theta.

Even though the largest systematic error comes from the uncertainty of the angular resolution, between 70^o and 110^o there are 4 intervals of 10^o with 7 dots in each interval. This means that each dot is separated from its neighbor by 1.43^o. There is not any technical reason to suppose that this same angular separation of 1.43 degrees between dots is not the same for all other intervals. The events in the first interval, and in all other intervals were measured with at least the same 1.43 degrees of angular resolution, [or the values used in Fig. 4, for example]. All 0.24 events do not have the same angle.[iii]

If we take the total 7.6 event/day between 0 degree and 180 degree and divide this by the 0.24 event/day at the 10 degree interval, that supposedly represent the events coming from the Sun direction, the ratio is overwhelmingly inverse. 0.24 event/day is only 3.16 % of all events detected, and this, as "background,"[iv] represent 96.84 %. In other words, if we divide 7.6 event/day by 0.24 event/day accepted from the Sun direction, we get 31.6 times more signal events than in the Sun direction. If we accept[iii] 0.6 the percent are 8 and 92, respectively.

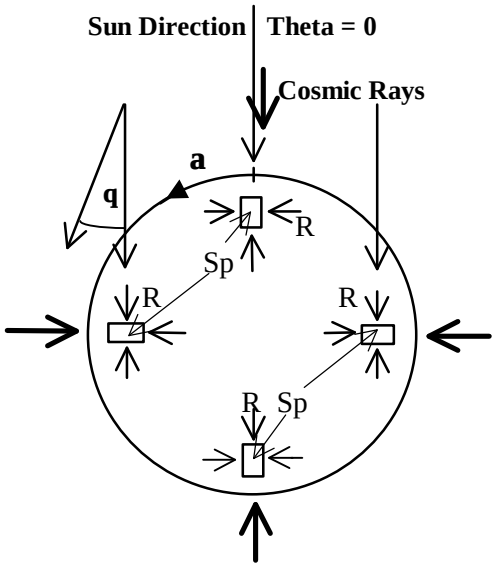

Fig. 5.- SK rotating daily with Earth.

Looking alternatively at Fig. 3 and Fig. 5 we see in Fig. 5 that the Sun direction coincides with the larger contamination R from the rock at $\alpha = 90^o$, $\alpha = 180^o$ and $\alpha = 270^o$. We pointed out three notable positions but, really, this happen continuously between $\alpha = 0^o$ and $\alpha = 360^o$. That is to say, many event/day at theta = 0 degree, are similar to Neutrino reaction, but are not coming from solar Neutrinos. Also Cosmic Ray contamination increases the signal events at α = 0 degree. This contamination could be estimated looking the interval between 170 and 180 degrees, where the Cosmic Rays produce 0.09 events as Neutrino-like reaction at $\theta = 180$ degrees ($\cos\theta = -1$). Of course, we pointed out this position as an illustrative example, but as we said before, this happen at all α positions. If we subtract from 0.24 those quantity of events, 0.09, that is equal at position $\alpha = 0$ degree

(with $\theta = 0^o$), the value of 0.24 is reduced to 0.15 event/day. The Solar[iv*] contamination between $\alpha = 0^o$ and 45^o, or more, increases the apparent signal events from the Sun. Supposing that this introduces a total of only 0.05 Neutrino-like event/day in the 0.15 remaining mentioned above, we obtain the final value of 0.1 event/day subtracting 0.05 from 0.15. This represent a signal of only 6 % not the reported 38 %. If we take 0.6 events as the value, we need to look the interval between 160^o-180^o where there are 0.266 events that subtracted from 0.6 give 0.334. This only represents a signal of 21%, not 38%, as mentioned in the original paper. Taking 0.1 (0.05+0.05) as "contamination," we get 0.234 or 15%.

What impress us most is that 126 candid authors believe the following: Y. T. told us in an e-mail that[iii], on July 21, 1998: **"We cannot distinguish signal and background event by event basis."** But if you have 4017 events that are indistinguishable on a **event by event basis** we can say that all of them are Neutrino events applying "**statistics**."(See Summary # 3.-). Super-Kamiokande Detector goes back to what we call in the SAA as the Pharaoh's Science. While Carezani was studying French in school he read a French book entitled "The Mysterious Science of the Pharaohs." In it the author demonstrated that the value of π was known by the Egyptians by dividing the height of the pyramid by the width of its base, subtracting the length of the pharaoh's coffin, and divided by .....etc., till eventually, the value of π was found.

If this is not good enough, one can apply Hegelian Dialectic Materialism where quantity change to quality. Interpreted by SK, that says that 4017 events whose origin can only be contamination are transformed "philosophically" in Neutrino events. We promise that you would see Fantasia in the original paper. Is it not there? Did they misunderstand Hegel?

Super-Kamiokande Neutrino detector is not detecting any especial signal event from the Sun. As Fig. 3 clearly shows, that no event can be shown to be produced by a Neutrino from the Sun.

4.- Summary.

1.- Super-Kamiokande "detect" 1/3 of the expected Neutrinos from the Sun**. 263% smaller than expected**.

2.- The expected yearly Neutrino flux doesn't follow the Earth eccentricity variation**. It is the contrary**. The 7 % variation increases to 26 %: **370 % larger than expected**.

3.- The use of Statistics**, "facts which can be stated as numbers,"** regarding "direction," is wrong. It is unknown, in the sample,[iii] which event is background or Neutrino-event, even in the **"Sun direction."** Precisely, this is what we are trying to elucidate and they spend million of dollars trying to find it.

4.- The 0.24 peak event/day show in Fig. 2 doesn't exist. It is "manufactured," as it is possible to see in Fig. 4. It is an illusion provoked by the wrong use of the cosine representation and the wrong handling of the data as we show above. Fig. 3 represents the truth**.**[v]

5.- The ratio between the total 7.6 even/day and 0.24 is equal to 32. That is, 32 times more event/day in all directions than in the Sun direction. The ratio between 7.6 and 0.6 is equal to 12, itself a significant difference.

6.- The claimed 0.24 event/day only represent 3.16 % of all event/day which itself is 96.84 %. Taking 0.6 event/day with 8% and 92 %, we arrive to the same conclusion.

7.- If Super-Kamiokande **could show that 50, 60 or 70 % - equivalent to 3.8, 4.565 or 5.32 event/day** - of the entirety of events come from the Sun direction, we could be convinced that Neutrinos from the Sun were being detected. The values of 3.16 %, or 8 %, do not support any positive conclusion.

5.- Conclusion.

The summary shows that Super-Kamiokande Neutrino detector proves overwhelming, definitely and without any doubt that no Neutrino event are coming from the Sun. Of course, the Super-Kamiokande cannot detect any Neutrino from the Sun because Neutrinos do not exists

there, as Autodynamics overwhelmingly proves.[vi]

For the first time we can justify that the money spend on the Super-Kamiokande detector, has been wasted having overwhelming positive results proving Neutrino non-existence.

Amnon Meyers' historic words in 1996 is now a reality: **"The Ultimate Detector Will Detect Nothing."**

References.-

[i] .- Pauli didn't worry much about momentum. He was preoccupied by the SR's failure to conserve energy. Today, many physicists are talking about spin conservation but in Pauli's time, such an issue was not an important issue under consideration. See A12.- Spin 1/2, in AD's book[vi]. Bouchner and Van de Graaff made an experiment in 1946 that showed overwhelmingly, definitely and without any doubt that the Electron-Neutrino doesn't exist. W. W Buechner and R. J. Van de Graaff, Phys. Rev. 70, 174(1946). (See E3.-)

[ii] .- This is not absolutely true. In the SAGE, (or RAGE) a Gallium detector experiment, the experimenters didn't find any Neutrino flux from the Sun. The result equaled zero. This result is repeated by the Super-Kamiokande detector as it is proved in this paper. The SAGE detector story is illustrative. The Soviet Physicists purified tons of Gallium, a secure Neutrino detector. When the American Physicists heard the news regarding its failure, they told the Russian that the failure was due to the poor Electronics used to detect the Neutrino signal. The American Physicists sent them state-of-the-art in Electronics, but the detector still refuse to detect Neutrinos. The result using the sophisticated Electronics was also zero, even though they mask this zero with the classic "±."

The 1/3 failure is not problem. The problem lies in the fact of whether we can invent any fantastic explanations such as oscillation, etc, to explain the difference.

[iii] .- Meanwhile preparing this paper we were in contact with two authors of the original paper via the Internet ,. Y. T. at University of Tokyo in Japan, and T. B. at Irvine University in California, USA. He accepts, in an e-mail dated Sat, 25 Jul 1998 11:49:09, and we quote:

"They do all not have -exactly- the same angle."

The question to Y. T. was:

"How many events at different angles are put together inside 0.24 events"?

He didn't answer the question for the following reason:

"I am sorry I cannot tell you numerical details beyond the paper(It is a rule of our collaboration.)"

The Super-Kamiokande Collaboration does not act like a Scientific Association, but more like a "Secret Society," or a "Secrete Service" to mislead themselves, the Scientific Community and the tax payers in a number of countries. They want to hide the truth because this will clearly show the fallacy of "a clear peak from the solar neutrinos."

We use 0.24 as example. The correct value is 0.6, and approximately, 22^{o} and given by T. B. as "4017/22.5/297.4 = 0.6 with roughly 5 % error." He is optimist or ..... The error is 100% because there are no Neutrino events from the Sun.

For example, if a gamma ray from the surrounding rocks hit an electron with 9 MeV and this fly in the Sun direction, it will be detected as a Sun direction event produced by a Neutrino coming from the Sun. The same thing applies to Cosmic rays and the Muon-induced Spallation on ^{16}O nuclei that "effectively mimic" solar Neutrino event. We are using the original paper words.

[iv] .- It is not, according to the paper, "background". The "background" according to the original paper was removed cutting the signal at 6.5 MeV. The 7.6 event/day are events that "effectively mimic" the Neutrino reaction (events), even though most of them come from the "contamination" (Background), and truly, the only signal that exist inside the Super-Kamiokande detector. Playing with the words "background," "contamination" or "mimic" doesn't matter. All events in Fig. 2 are, in principle, background above 6.5 MeV and through 20 MeV.

iv*.- As it is possible to see in Fig. 3 the plot is not symmetrical with respect to the axis at 90 degrees. The plot's left hand side is flatter than the right hand side.

The comb of the right hand side of the plot, that starts at 5 degrees, ends approximately at 70 degrees.

It is not any secret that the Sun is a powerful emitter of Protons, Electrons and some Helium nuclei through Solar plasma that also produce strong Gamma rays. The influence of this powerful radiation or contamination is not only at alpha equals zero degrees (See Fig. 5) increasing only the background at theta = 0. It also increases the background of theta = 0 degrees until approximately alpha = 70 degrees. Clearly, the solar activity, starting at alpha = 0 degrees extends its influence until alpha = 45 degrees

with a centerpoint around 35 degrees, as is shown by the three dots on the right hand side of the plot, at approximately 0.45 events/day.

While we were studying the original paper and preparing our paper, we made a simple computer program to look for a numerical solution for the experimental values found. Of course, the starting point is to maintain the values in the interval 0-10 degrees (0.24 events/day) and in the interval 170-180 degrees (0.09 event/day).

One output of the program is the following:

Theta = 0

alpha	0	15	30	45	
S	0.06	0.05	0.03	0.01	
C	0.03	0	0	0	
R	0.01	0.012	0.012	0.012	
Sp	0.0035	0.0035	0.0035	0.0035	
	0.1035	0.0655	0.0455	0.0255	= 0.24

Theta = 180

S	0	0	0	0	
C	0	0	0	0.03	
R	0.012	0.012	0.012	0.01	
Sp	0.0035	0.0035	0.0035	0.0035	
	0.0155	0.0155	0.0155	0.0435	= 0.09

Of course, this Table only shows "graphically," "symbolically," the mechanism of contamination from the Sun. 0.24 event/day is the total background at theta = 0 degrees adding all positions during a day. The same is true for 0.09 or any other position.

As the program output shows, the contamination increases to 0.15. This is precisely due to the Sun's contamination at alpha between 0 and 45 degrees

The background from the Sun is larger that in the opposite direction, but even so , there is not any "peak." There is more background at any other theta angle than at the interval 0-10 degrees, excepting the interval 160-180 degrees. 0.24 events/day are only background, no events producede by Neutrinos from the Sun !!

[v].- Compressing all intervals to the size of 10^{o} only a dot in each interval could be plotted, but this single dot will have the value of all dots include in each interval. Diagramatically this is shown in Fig. 3. Here noting is compressed. All intervals are the same size with the number of events in each interval.

[vi].- R. L. Carezani, "Autodynamics. Fundamental Basis for a New Relativistic Mechanics." SAA. 801 Pine Ave. # 211, Long Beach, CA 90813, USA. LCCCN 98-86262 and ISBN 0-9665533-0-6 or
http://www.autodynamics.org

EndNote.

Oscillation:

It sounds to the readers' ears as a Super-Science discovered by Super-Scientists. At least apparently, a larger proportion of the Scientific Community thinks so. But making a simple cross examination of what this implies, it is evident that the term "oscillation" is a scientific misunderstanding. Oscillation is not the oscillation of a Pendulum. Oscillation means change, speaking specifically, of an Electron-Neutrino changing to a Muon or Tau Neutrino. In order to give the Neutrino a Chameleon character it needs to have mass, as with a real Chameleon. "Single," "elemental" or "punctual' mass cannot change its identity without magic. Neutrino mass needs to be formed as a complex structure that changing its configuration causes an Electron-Neutrino to change into Muon or Tau Neutrino. The Electron-Neutrino from the Sun core with its own identity flys to Earth and now we need two new different types of magic to satisfy the Neutrino-Chameleon. 2/3 of those Neutrinos change to Muon or Tau Neutrino thus being undetectable. The remaining 1/3 remain as Electron Neutrino to be detected as they are. We don't know what they are but we are sure that they are very intelligent. Part of them satisfied the Human ego, showing its identity, and 2/3 of them scoffing the Neutrino Hunters!

We have a "scientific hypothesis" comparable to that of the level of the Super-Kamiokande Collaboration. The Electron-Neutrinos traveling from the Sun to Earth are playing "Lottery." The Electron-Neutrino with a number 34 or bigger changes its identity to Muon or Tau Neutrino, thus becoming "undetectable" by Humans.

Which Electron-Neutrino is Muon or Tau Neutrino?

Ask the Super-Kamiokande Collaboration's Secret Society. If they have the data to tell us about the Neutrino's mass, they have the data to tell us which is a Muon or aTau Neutrino!

Simple, Watson, simple!

Of course this only is a half of the magic. The other half is "to think," "to postulate" or "to invent" another mechanism or machinery to find WHEN, WHERE or HOW the Chameleon starts to change the color and for "what reason"! This wonder will be explained to the readers in many papers in the future and these "Scientists " will have jobs for a very long time!!!

Aren't there any responsible or serious scientist inside the circle of 19 famous Institutions or Universities to stop all the anti-scientific fantasies that cost million of dollars of the tax payer's money?

Carezani-Haye.