

# PUTTING THE INSTITUTE OF MATHEMATICS IN ITS PLACE

By

**E. E. Escultura**

Research Professor

GVP – Professor V. Lakshmikantham Institute for Advanced Studies  
and Departments of Mathematics and Physics, GVP College of Engineering  
JNT University, Madurawada, Visakhapatnam 540041, AP, India

In 2005 the Philippine Collegian published the article, STATEMENT FROM THE UP MATHEMATICS DEPARTMENT, attacking me personally for my work in mathematics and physics the argument based on wrong information and ignorance of mathematics and physics. Fortunately, the Philippine Collegian which adheres to journalistic ethics published my reply, TOTAL IGNORANCE OF FUNDAMENTALS. This cannot be said of the UP Newsletter which published the same statement but did not publish my reply revealing itself as a gossip sheet after all. My mole at the Department told me that the Chairman tried to solicit signatures for the statement from its over 100 faculty members but got only 7 the reason it was published anonymously.

Then in March 2008 another online article, Personal Statement from UPD, was addressed to me, again, attacking my work by repeating the same old futile arguments but this time focusing on my resolution of Fermat's last theorem.

Now, there is a post on a page in the WikiPilipinas website, again, addressed to me and my work that repeats the same old arguments which I have already resoundingly demolished on many websites. WikiPilipinas, by the way, has published online on the same webpage outright lies about Filipino inventors and scientists who are long gone and cannot defend themselves. It labelled as hoax the inventions of Agapito Flores, Eduardo San Juan and Fe de Mundo without any documentation whatsoever. It made a blunder, however, by also publishing on the same webpage lies about me, the Manny Pacquiao of Science and Mathematics with Teflon world academic stature. When I posted this message in reply the administrator, J. Maguddayao, deleted the entire entries and blocked my username.

These online articles by the Institute of Mathematics amount to a tiny squeak behind the thousands of articles, posts and commentaries on my work on several dozen websites not to mention my over 50 scientific papers in many world renown peer reviewed international scientific journals, keynote addresses at world congresses and international conferences, books and chapters of some books. My work has been extensively debated across cyberspace since 1997 and not a single hole has been punched on it. All arguments against my work have been thoroughly demolished including these feeble attempts by the Institute. Samples of my latest punches can be viewed at these sites:

- (1) False Proofs, <http://falseproofs.blogspot.com/2006/06/e-e-escultura.html>
- (2) Free Library, <http://www.thefreelibrary.com/E.+E.+Escultura/Contributed-a274787>
- (3) <http://scientopia.org/blogs/goodmath/2011/02/10/e-e-escultura-and-the-field-axioms/#comment-27520>

- (4) New Approach to Physics, under ISCID topic Brainstorms (5 pages):  
(a) [http://www.iscid.org/boards/ubb-get\\_topic-f-6-t-000607.html](http://www.iscid.org/boards/ubb-get_topic-f-6-t-000607.html)  
(b) [http://www.iscid.org/boards/ubb-get\\_topic-f-6-t-000607-p-2.html](http://www.iscid.org/boards/ubb-get_topic-f-6-t-000607-p-2.html)  
(c) [http://www.iscid.org/boards/ubb-get\\_topic-f-6-t-000607-p-3.html](http://www.iscid.org/boards/ubb-get_topic-f-6-t-000607-p-3.html)  
(d) [http://www.iscid.org/boards/ubb-get\\_topic-f-6-t-000607-p-4.html](http://www.iscid.org/boards/ubb-get_topic-f-6-t-000607-p-4.html)  
(e) [http://www.iscid.org/boards/ubb-get\\_topic-f-6-t-000607-p-5.html](http://www.iscid.org/boards/ubb-get_topic-f-6-t-000607-p-5.html)

If these feeble attempts by the Institute are a tiny squeak, why take notice? One reason is to take note of a new trick proudly discovered by the Institute: creating the link, <http://en.wikipilipinas.org/index.php?title=User:Eescultura>, to my article in WikiPilipinas with this message (quoted verbatim including grammatical errors):

To whom it may concern;

I Edgar Escultura formally renounce my claims to have disproven Fermat's Last Theorem (FLT), my claims that the real number system is flawed, and my claim that the complex number  $i$  is not well defined. I also retract my claim that Dr. Wiles acknowledged my work was correct and my claim to have been nominated for the Nobel Prize in physics, I have discovered that these were both cruel tricks being played on me by people signing a guestbook on my website.

I would like to acknowledge the efforts of various bloggers and their readers for taking the time to demonstrate the flaws in my arguments. Were it not for their genuine care and patience I would still be defending indefensible claims. I also apologize to any people who spent considerable time trying to understand my writing, I was wrong and am man enough to admit it.

I would also like to inform the mathematics community that the journal that published my work, Nonlinear Studies, did a grave disservice to you all in allowing work so peppered with errors to ever be printed. I apologize for myself and the irresponsible behaviour of Nonlinear Studies.

Finally to Dr. Wiles, I offer you my sincerest apologies. Your proof is and always was correct, there were no "fatal flaws" in it as I so often asserted. I also apologize to you for trying to pass off obvious forgeries as your writings. Most importantly I would like to apologize to you for ever attacking your stature as a mathematician, my claims were not only false but also inconsiderate, I acted foolishly and can only hope you can forgive me.

E. E Escultura Research Professor V. Lakshmikantham Institute for Advanced Studies and  
Departments of Mathematics and Physics GVP College of Engineering, JNT University

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This "apology" is, of course, FAKE. I NEVER POSTED IT and I DID SOMETHING MUCH GREATER THAN SIMPLY MAKE A CLAIM: I ACTUALLY DISPROVED FLT by counterexamples published in my papers in several renowned peer reviewed scientific journals. It is also discussed in my recent books, Scientific Natural Philosophy (Bentham Science Publishers) and Hybrid Grand Unified Theory (Atlantis, a division of Elsevier Science, Ltd) .When I posted this reply on WikiPilipnas website it was deleted but the fake apology was retained although edited and toned down a bit. Still, it is even worse than libel. Moreover, my username has been blocked from that link and I cannot post my replies. Only the administrator, J. Maguddayao, could have done these changes in connivance, of course, with the Institute.

The abstracts and summary of my publications are posted on one of my websites, Grand Unified Natural Dynamics, <http://users.tpg.com.au/pidro/> (see also my other website, Grand Unified Theory,

<http://edgareescultura.wordpress.com/>) Most of my papers are being sold online (for instance, search: *escultura science direct elsevier*) and several of my papers have made it to the top 25 most downloaded papers published by Elsevier Science Ltd in its several scientific journals. The latest confirmation of my nomination for the Nobel Prize for Physics in 2005, which was dismissed by the message from the Institute in WikiPilipinas, is the announcement online of my new book, *Hybrid Grand Unified Theory*, co-authored with V. Lakshmikantham and S. Leela, published by Atlantis in March 2009 and distributed by World Scientific which specifically mentions the nomination. This book was a best seller in 2009 among books of all categories in natural and social sciences distributed by World Scientific. It made it to the #2 spot on the best sellers list in July, 2009. For the information of the Institute some of my major achievements recorded and etched in internet archives are as follows:

1. Disproved Fermat's last theorem by countably infinite counterexamples, *Nonlinear Studies*, **5**(2), 1998, pp. 227 – 254 (published by the International Federation of Nonlinear Analysts).
2. Solved the gravitational n-body problem, *Nonlinear Analysis, A-Series: Theory, Methods and Applications*, **30**(8), 1997, pp. 5021 – 5032 (published by Elsevier Science, Ltd).
3. Solved the turbulence problem in, *Turbulence: Theory, Verification and Applications, Nonlinear Analysis, A-Series: Theory, Methods and Applications* **47**(2001), pp. 1539 – 1551.
4. Discovered the superstring, basic constituent of matter, *Nonlinear Analysis, A-Series: Theory, Methods and Applications*, **30**(8), 1997 (this discovery is the foundation of the solution of the gravitational n-body problem and the grand unified theory).
5. Developed the grand unified theory in a series of papers since 1997 and consolidated in the paper, *The Grand Unified Theory, Nonlinear Analysis, A-Series: Theory, Methods and Applications*, **69**(3), 2008, pp. 823 – 831 5032.
6. Developed the new real number system in a series of papers and consolidated in the paper, *The new real number system and discrete computation and calculus, Neural, Parallel and Scientific Computations*, **17**(2009), 59 – 84 (Published by Dynamic Publishers).
7. Proved Goldbach's conjecture, *Applied Mathematics and Computation*, **138**(2003), pp. 145 - 169 (published by Elsevier Science, Ltd).
8. Developed the generalized integral for set-valued functions, *Proceedings of the International Conference on Tools for Mathematical Modelling*, June 2000, St. Petersburg, Russia, pp. 221 - 224.
9. Developed the generalized integral as dual of Schwarz distribution, in press, *Nonlinear Studies*, invited paper.
10. Developed the Complex Vector Plane which rectifies the present defects of the complex number system in the appendix to: *The generalized integral as dual of Schwarz distribution*, in press, *Nonlinear Studies*, invited paper; it is also summarized in the ebook, *Scientific Natural Philosophy*.
11. Gave a keynote address at the 5<sup>th</sup> World Congress of Nonlinear Analysts, Orlando, Florida, July 2 – 9, 2008 (Sponsored by the International Federation of Nonlinear Analysts); on the topic, *The mathematics of the grand unified theory*, published in *Nonlinear Analysis, A-Series: Theory: Method and Applications*, **2009**, **71**, pp. e420 – e431.
12. Gave another keynote address at the 7<sup>th</sup> International Conference on Dynamic Systems and Applications, on the subject: *Our Fractal Universe and Applications*, May 25 – 28, 2011, Atlanta (the abstract is published online).
13. Addressed a plenary session of the 5<sup>th</sup> World Congress of Nonlinear Analysts on the topic, *The new real number system as the g-closure of the terminating decimals*, Orlando, Florida, July 2 – 9; this paper was integrated in the original paper, *The new real number system and discrete computation and calculus* (see item 6 above).

14. Gave a keynote address at the 4<sup>th</sup> International Conference on Dynamic Systems and Applications, on the topic, Dynamic and mathematical models in physics, Atlanta, USA, April 30 – May 2, 2007 (the abstract is online).
15. Gave a keynote address at the 5<sup>th</sup> International Conference on Neural, Parallel and Scientific
15. Introduced the new scientific methodology of qualitative modelling as the main contribution of my Ph.D. Thesis, The trajectories, reachable set, minimal levels and chains of trajectories of a control system, at the University of Wisconsin, 1970; it was applied to physics for the first time to solve the gravitational n-body problem, 1997.
16. Made the first qualitative model of the atom in the paper, Qualitative model of the atom, its components and origin in the early universe, Proc. 5<sup>th</sup> World Congress of Nonlinear Analysts, and published by, Nonlinear Analysis, B-Series: Real World Applications, **2009, 11**, pp. 29 – 38 (published by Elsevier Science, Ltd).
17. Developed the generalized fractal in the paper, Extended geometrical and generalized fractal, chaos and turbulence, a chapter to an ebook, Fractal Classification and Applications, in press, Nova Science Publishers.
18. Provided the first full explanation of the Big Bang in the paper, The Big Bang and What It Was, a chapter in the ebook, The Big Bang: Theory, Assumptions and Problems, in press, Nova Science Publishers.

The other reason for this article is to identify the sources of frustration that led to this futile and desperate action by the Institute and provide insights on why the Institute stooped to ground level by posting the fake apology quoted above. The brief history of the Institute below and its present status sheds light on this strange behaviour.

- (1) In 1986 I returned from the US after an absence of 15 years due to the political turmoil in the Philippines during that period and re-joined the Department of Mathematics as Associate Professor.
- (2) Eager to advance mathematics in the country I proposed in 1988 the conversion of the Department from a purely teaching department to an Institute with stress on research.
- (3) This proposal did not sit well with the leadership for obvious reason: no one else was doing research at that time and the cloud of insecurity loomed large over it. The fall out: my dismissal from the Department by denying tenure followed by sustained campaign of vilification that continues to this day.
- (4) What is the score? The Institute's website reveals the following information:
  - (a) The Institute has 10 full professors, 7 associate professors, 9 assistant professors, one adjunct professor, 56 instructors and many lecturers.
  - (b) NONE OF THE FULL, ASSOCIATE AND ASSISTANT PROFESSORS HAS ANY PUBLICATION IN MATHEMATICS. The adjunct professor has publications in applied mathematics which is commendable but not in mathematics.
  - (c) There are 20 papers by the adjunct professor and graduate students (with co-authors abroad) on the applications of mathematics to other fields such as biology and computer science. They are also commendable contributions to the fields of application of mathematics but not to mathematics. In other words, after having enjoyed generous research grants as an institute, the Institute of Mathematics has not produced even a single paper in mathematics during all those years. (It would be

more appropriate for this unit of the University to call itself a Department of Applied Mathematics; ironically, it tries to train mathematicians and claims to be the leader in mathematical research)

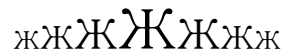
In contrast, both the Marine Science Institute and the National Institute of Physics have hundreds of publications each in peer reviewed scientific international journals followed by the Institute of Biology that has also substantial publications. The other institutes do not have publications pages on their websites but I know some well published colleagues there except the Institute of Mathematics.

Item (4) above explains why the Institute has all the time to carry on this vilification campaign during the last 23 years.

This candid look at the Institute is not washing dirty linen in public since the Institute's website is viewed worldwide. Rather, it poses a challenge for the College: What can be done to lift the only Institute that rides on its prestige but failed to deliver?

If I had a glass roof over my head I would not push my luck but keep away from trouble.

(When this article was first published online the Institute website's publications page closed down with the sign, "Under Construction".



## **The Institute of Mathematics is at it Again**

The Institute of Mathematics has posted its 4th anonymous statement since 2005 (URL: [http://en.wikipilipinas.org/index.php?title=Edgar\\_Escultura](http://en.wikipilipinas.org/index.php?title=Edgar_Escultura)) attacking me personally and my work based on misinformation and ignorance of mathematics, physics and mathematical issues. The statement must have been authorized by its Director, Dr. Jose Balmaceda, if he himself is not its author. At any rate, he takes full responsibility for it as IM director. The message replaces an earlier one in this website of WikiPilipinas that labelled as hoaxes the inventions and scientific discoveries of Agapito Flores, Eduardo San Juan, Fe de Mundo and my scientific discoveries without any documentation whatsoever. It was deleted and replaced by this 4th IM statement only after I pointed out its libellous nature. The 3rd anonymous IM statement has likewise been deleted as well as a fake apology linked to this website.

The reason for the anonymity is quite obvious: Dr. Balmaceda is not a mathematician (i.e., he has no publication in any of the peer reviewed international scientific or mathematical journals whatsoever) but pretends to know mathematics by commenting on mathematical issues he does not understand (e.g. he thinks peer review is done by bloggers, view URL: [http://en.wikipilipinas.org/index.php?title=Edgar\\_Escultura](http://en.wikipilipinas.org/index.php?title=Edgar_Escultura)). Thus, he is, objectively, an impostor and a discredit to the University of the Philippines where he occupies such a high position.

I could have ignored this message since it does not make a dent on my stature as a mathematician and physicist of world renown based on my over fifty peer-reviewed scientific articles, books and keynote addresses at international scientific conferences many of which monumental such as (1) the solution of the 200-year-old gravitational n-body problem, (2) The development of the grand unified theory (a

project that Albert Einstein proposed over 70 years ago but failed to carry out), (3) disproof of the 360-year-old Fermat's conjecture known as Fermat's last theorem, (4) my proof of the 250-year-old Goldbach's conjecture (the proof is in my article, *The new real number system and discrete computation and calculus, Neural, Parallel and Scientific Computations*, **2009**, **17**, pp. 59 – 84) and my ebook, *Scientific Natural Philosophy* (my publications are listed on my website, <http://users.tpg.com.au/pidro/>, under the article Abstracts and Summary of Publications) but I responded to all challenges across cyberspace including those raised by the IM statements to share the discussion with amateurs and mathematics and physics teachers. (This opens up a new era in mathematics where mathematical and scientific results are discussed openly so that hoaxes can no longer stand or errors hide for a long time). Not a single mathematician or physicist has ever refuted my work.

## The Nonsense of Dr. Jose Balmaceda

An excerpt from a webpage of WikiPilipinas,  
[http://en.wikipilipinas.org/index.php?title=Edgar\\_Escultura](http://en.wikipilipinas.org/index.php?title=Edgar_Escultura),  
 says:

### A Proof that $d^* = 0$

Dr. Escultura defines his 'dark number'  $d^*$  as  $d^* = 1 - .999999\dots$  (where  $.999999\dots$  is a never ending string of 9's after the decimal place). He also claims that  $d^* > 0$ , so this 'dark number' is NOT zero according to Escultura. So we will begin with two simple legal equations, then subtract the second equation from the first and examine the result. So as not to confuse the \* in ( $d^*$ ) with the multiplication sign (\*), in the following equations we will write D in place of  $d^*$ , that is  $D = d^* = (1 - .999999\dots)$

$$(1) 10*(D) = 10*(1 - .999999\dots) = 10 - 9.999999\dots$$

$$(2) 1*(D) = 1*(1 - .999999\dots) = 1 - .999999\dots$$

Now we subtract equation (2) from equation (1):

$$\begin{aligned} 10*(D) - 1*(D) &= (10 - 9.999999\dots) - (1 - .999999\dots) \\ &= 10 - 9.999999\dots - 1 + .999999\dots \\ &= (10 - 1) - (9.999999\dots - .999999\dots) = 9 - 9.000000\dots = 0 \end{aligned}$$

Also we have

$$10*(D) - 1*(D) = (10 - 1) * D = 9*D.$$

So now we have,

$$\begin{aligned} 9*D &= 0 \text{ (by equating the results of the above two equations)} \\ D &= 0/9 = D = 0 \end{aligned}$$

Thus we have proven that in fact if we accept this 'dark number'  $d^*$ , then it must be the case that  $d^* = 0$ . However, Escultura explicitly claims that  $d^* > 0$ .

## A Proof that .99999... = 1

It is possible that some people may not be comfortable with the fact that  $.99999\dots = 1$ . It may seem at first that  $.99999\dots$  is strictly less than 1, however this is a peculiarity of how we write out numbers, and I assure you it is true. As above we will start with two perfectly legal equations and again subtract one from the other to see where it leads.

$$(1) 10*(.99999\dots) = 9.99999\dots$$

$$(2) 1*(.99999\dots) = .99999\dots$$

Now we subtract equation (2) from equation (1)

$$10*(.99999\dots) - 1*(.99999\dots) = 9.99999\dots - .99999\dots = 9.00000\dots$$

Also we have,

$$10*(.99999\dots) - 1*(.99999\dots) = (10 - 1)*(.99999\dots) = 9*(.99999\dots).$$

So now we have,

$$9*(.99999\dots) = 9.00000\dots \text{ (by equating the results above two),}$$

$$(.99999\dots) = (9.00000\dots)/9$$

$$.99999\dots = 9/9 \text{ (clearly } 9.00000\dots = 9)$$

$$.99999\dots = 1$$

Thus  $.99999\dots$  may appear at first to be a number smaller than 1, it is in fact equal to 1. There is nothing 'wrong' with this, it is just a quirk of the decimal system we use to write our numbers. This allows us to quickly show that  $d^* = 0$ , as in the following proof:

$$d^* = (1 - .99999\dots) = (1 - 1) \text{ (since we now know that } .999\dots = 1) = 0.$$

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Let me just comment on two of the many nonsense of these "proofs".

1) Proof of  $d^* = 0$ .

The equation  $D = d^* = (1 - .99999\dots)$  is ill-defined, nonsense, IN THE REAL NUMBER SYSTEM because all nonterminating decimals including  $.99\dots$  is ill-defined there and do not belong to it (they are well defined in the new real number system). Therefore, the equations,

$$(1) 10*(D) = 10*(1 - .99999\dots) = 10 - 9.99999\dots$$

$$(2) 1*(D) = 1*(1 - .99999\dots) = 1 - .99999\dots$$

are nonsense because they apply multiplication and subtraction, the inverse of the addition, which are binary operations of the real number system, to numbers that do not belong to it. Consequently, the

whole "proof" is total nonsense.

In particular, one cannot apply addition and multiplication (as binary operations IN THE REAL NUMBER SYSTEM) precisely because they are ill-defined in the real number system. Try, for instance, adding  $\sqrt{2}$  and  $\sqrt{3}$  and I'll bet my life that no one can do it. It can be approximated by some real number but that is not the sum. However, it can be done in the new real number system because nonterminating decimals are well defined.

## 2) A Proof that $.999999... = 1$

The comment in 1) applies as well to the equations,

$$(1) 10*(D) = 10*(1 - .999999..) = 10 - 9.999999...$$

$$(2) 1*(D) = 1*(1 - .999999...) = 1 - .999999...,$$

which combine a mix of elements NOT BELONGING TO THE REAL NUMBER SYSTEM in a set of binary operations IN THE REAL NUMBER SYSTEM. Thus, the proof is also nonsense.

Such sloppy mathematics could not have come from a true mathematician. Both errors are quite basic and reveal utter ignorance of the fundamentals of mathematics. This is a problem peculiar to amateurs who know only mechanical manipulation of symbols but are ignorant of precise mathematical reasoning and deep analysis. Moreover, it appears that Dr. Balmaceda is a new comer to internet mathematics forums where I have posted many, many responses to hundreds of bloggers including my responses to ALL the points being raised here..

I could have referred Dr. Balmaceda to my original work but, not being a mathematician, i.e., having no publication in any peer reviewed international journal, he would neither understand my work nor know such journals. He does not even know which journals are peer reviewed and who the mathematicians are and that is understandable.

This tit-for-tat with me is an exercise in futility for Dr. Balmaceda, although it wastes my time, and works to his disadvantage. For, it only reveals more and more (1) my achievements as a mathematician and physicist of world renown and (2) his true status as an impostor parading as a mathematician. Remember that there is a light year of difference between a mathematician and a mathematics teacher.

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