

# ENTRY IN CANCELLED NASA COMPETITION

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Abstract -

In early May, I wrote the following entry for a competition being conducted by the National Aeronautics and Space Administration (NASA). Today I received a disappointing email advising me that the competition has been cancelled. Here's part of what it said regarding the competition's purpose and the reasons for cancellation:

**"NASA Cancels its High Performance Fast Computing Challenge:** After careful deliberation, NASA has decided to cancel the competition it announced six weeks ago that was designed to solicit the public's help in speeding up its Pleiades supercomputer software. Called the High Performance Fast Computing Challenge, the contest was designed to reward qualified contenders who could change the agency's FUN3D design software so that it could run 10 to 1,000 times faster without a decrease in accuracy. The extremely high number of applicants, more than 1,800, coupled with the difficulty in satisfying the extensive vetting requirements to control the public distribution of the software made it unlikely we would achieve the challenge's original objectives in a timely manner."

My submission does not include lines of programming for the simple reason that no coding beyond that currently being used is necessary. Since NASA was looking for coding to update its Pleiades supercomputer software, I am well aware that they undoubtedly wouldn't have even considered my entry. I don't want to waste my efforts to explain new programming (and new space-time travel), however. So I'll post my entry here.

Content -

Title \*

New Time Dimension & Computers of Unlimited Power

Solution overview \*

New time-concepts will be the basis for computers of unlimited power.

This submission does not include lines of programming for the simple reason that no coding beyond that currently being used is necessary, although improvements are certainly possible and will be submitted by other entrants. What is needed for the next generation of computers is that engineers warp space-time so the functioning of the computer's processor takes place in the so-called imaginary time<sup>^</sup> spoken of in the Complex Number Plane. If warping is looped so results emerge in so-called real time, its

calculations would be retrieved instantly after they were entered into the computer because billions of years might pass in imaginary time yet no period at all could elapse in our real time - and, for example, a presently unbelievably long value for pi could be obtained instantaneously; or a spaceship employing "real" space plus "imaginary" time could instantly travel to any remote galaxy.

Since this programming technique is not available to the present generation, we might be tempted to dismiss this submission but that would be shortsighted and a serious mistake because the computation it leads to is literally unlimited. All the pieces from previous decades have been brought together, and their practical development could easily see the relevant programming become routine in the next generation of supercomputers.

^ "Imaginary time" is a most unfortunate term, since it appears to be every bit as real as the time we're familiar with, but the term is a relic from last century when it was developed as a purely mathematical concept arising from Special Relativity and Quantum Mechanics. Albert Einstein postulated that Max Planck's quanta were real physical particles (what we now call photons), not just a mathematical fiction. From there, Einstein developed his explanation for the photoelectric effect. In the same way, imaginary time can progress from mathematical fiction to physical reality.

#### Improvement Potential \*

Improvement Potential is literally infinite. This is an unlimited payoff for the relatively tiny cost of waiting a few years until the warping of space-time has significant effects, and until scientific attitudes about imaginary time change in a few years (see Feasibility and Practicality).

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#### Accuracy \*

The current accuracy of models could not possibly suffer in the least, since no coding beyond that currently being used is required. THERE WOULD BE NO REQUIREMENT TO DEBUG NEW PROGRAMMING.

Since billions of years might pass in imaginary time yet no period at all could elapse in our real time, infinity in IT (imaginary time scientifically reinterpreted as physical) could be equivalent to zero in the passage of the time we're familiar with. This might allow the accuracy of all models to be constantly revised and constantly improved without any passage of the "real" time we're familiar with.



### Feasibility & practicality \*

Two things are necessary: Engineers must warp space-time, and incorrectly named "imaginary time" must transform from mathematical fiction to physical reality in scientists' minds. Scientific experiments aimed at warping space-time are underway.

1) Manipulating  $E=mc^2$  in weird ways (compatible with the weird physics of black holes) seems to say distance can be totally deleted from space-time. Would the combining of gravitation and electromagnetism (attempted in Einstein's Unified Field Theory) allow the hypothetical gravitons in gravitational waves to perform like the photons of light in Yale University's 2009 electrical-engineering experiment? Those photons attract and repel each other at very tiny scales – if gravitons did the same, curves in space-time (gravity) could be drawn together, forming a type of wormhole and deleting distance. This would enable visits to other star systems or galaxies. Another way to think of instant space-time travel is as travel in so-called Imaginary Time. Wikipedia reports on space-time warping -

2) For some time, physicist Ronald Mallett has been working on plans for a time machine. This technology would be based upon a ring laser's properties in the context of Einstein's general theory of relativity. ([https://en.m.wikipedia.org/wiki/Ronald\\_Mallett](https://en.m.wikipedia.org/wiki/Ronald_Mallett))

3) Harold ("Sonny") White from NASA's Johnson Space Center is a member of Icarus Interstellar, the nonprofit foundation whose mission is to realize interstellar flight before the year 2100. At the 2012 meeting of 100YSS (the 100 Year StarShip vision), he reported using a laser to try to warp spacetime by 1 part in 10 million with the aim of helping to make interstellar travel possible. [Moskowitz, Clara (17 September 2012) "Warp Drive May Be More Feasible Than Thought, Scientists Say" - space.com].

As for transforming perception of IT (imaginary time):

Einstein postulated that Planck's mathematical quanta were more than the mathematical device Planck originally conceived of. He thought they were real particles causing the photoelectric effect. IT can also transform from mathematical device to physical reality.