

The Physics of Christianity by Frank Tipler, Doubleday, \$27.50, ISBN 9780385514248

MORE DANGEROUS THAN NONSENSE

In trying to provide evidence for Christian beliefs, a respectable physicist has bent science to its breaking point, says **Lawrence Krauss**

HALFWAY through Frank Tipler's new book, I scanned the table of contents and was disappointed to find there would be no explanation of the recently reported miraculous appearance of Mother Teresa's image on a cheese Danish in Nashville, Tennessee. That was surprising, since Tipler goes out of his way to provide convoluted physics justifications for similar Christian miracles, including the image of Jesus on the Turin shroud, long debunked as a forgery by many experts. When conventional physics doesn't provide a sufficient explanation for the religious phenomenon in question, Tipler reinvents it.

As a collection of half-truths and exaggerations, I am tempted to describe Tipler's new book as nonsense – but that would be unfair to the concept of nonsense. It is far more dangerous than

dangers of pushing science beyond its domain of validity and using scientific approximations as if they are completely valid in all contexts.

Indeed, while he complains several times that other physicists let their philosophical prejudices influence their conclusions, Tipler has clearly let his own desires get the better of him. Based on personal experience, I believe that Frank Tipler is an honourable man and I do not think that he intended to pervert reality to serve his goals – but nevertheless he has.

Tipler, for example, claims that the standard model of particle physics is complete and exact. It isn't. He claims that we have a clear and consistent theory of quantum gravity. We don't. He claims that the universe must recollapse. It doesn't have to, and all evidence thus far suggests that it won't. He argues that we understand the nature of dark energy. We don't. He argues that we know why there is more matter than antimatter in the universe. We don't. I could go on, but you get the point.

When stretching the limits of knowledge beyond the pale doesn't suffice, Tipler resorts to some interesting a posteriori uses of probability. For example, he argues that the resurrection of Jesus occurred when the atoms in his body spontaneously decayed



Just transmute “nearly impossible” into “nearly certain” and it all makes sense

into neutrinos and antineutrinos, which later converted back into atoms to reconstitute him. Here Tipler invokes the fact that within the standard model of particle physics the decay of protons and neutrons is possible, although he recognises that such decay would likely take 50 to 100 orders of magnitude longer than the current age of the universe: thus, the probability of such an occurrence is essentially zero. However, using a strange “Christian” version of the anthropic principle, a subject he once co-authored a book about, he then claims that without Jesus's resurrection, our universe could not exist – therefore, when one convolves this requirement with the almost, but not exactly

zero, a priori probability, the net result is a near certainty.

I have racked my brains to think of a more extreme example of uncritical and unsubstantiated arguments put into print by an intelligent professional scientist, but I cannot. Given some of the junk that has been published in the past decade, that's saying a lot. I urge potential readers who may feel the need to seek out some empirical justification for their faith to bestow a kindness on Professor Tipler and turn to another book with either better science, or better theology. ●

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mere nonsense, because Tipler's reasonable descriptions of various aspects of modern physics, combined with his respectable research pedigree, give the persuasive illusion that he is describing what the laws of physics imply. He is not. This book provides an object lesson in the