

'Edge of Creation' will give its readers plenty to ponder

The Universe is asymmetric and I am persuaded that life, as it is known to us, is a direct result of the asymmetry of the Universe or of its indirect consequences."

This quote by Louis Pasteur opens "A Tear at the Edge of Creation: A Radical New Vision for Life in an Imperfect Universe," the most recent book by Marcelo Gleiser.

The scope of "A Tear at the Edge of Creation" is all-encompassing, as well as deeply personal. Gleiser wrestles with some of the most profound and fundamental questions we all face as human beings: Where did the universe come from? Why are we here? What is our destiny?

He attempts to answer these and many others from both a macrocosmic as well as a microcosmic perspective. In large measure he succeeds, although your individual assessment of the efficacy of his work will depend, to a large extent, on your individual belief system.

Gleiser is a fellow of the American Physical Society and a recipient of the Presidential Fellow Award from the White House and the National Science Foundation; his previous books include "The Dancing Universe: From Creation Myths to the Big Bang" and "The Prophet and the Astronomer: A Scientific Journey to the End of Time."

Gleiser is the Appleton Professor of Natural Philosophy and a professor of physics and astronomy at Dartmouth College.

As alluded to previously, the author writes on several different levels. At one moment, he can be contemplating the pure mathematics on which quantum theory is built. In the very next passage, he is relating what those equations mean in a very introspective and intimate way.

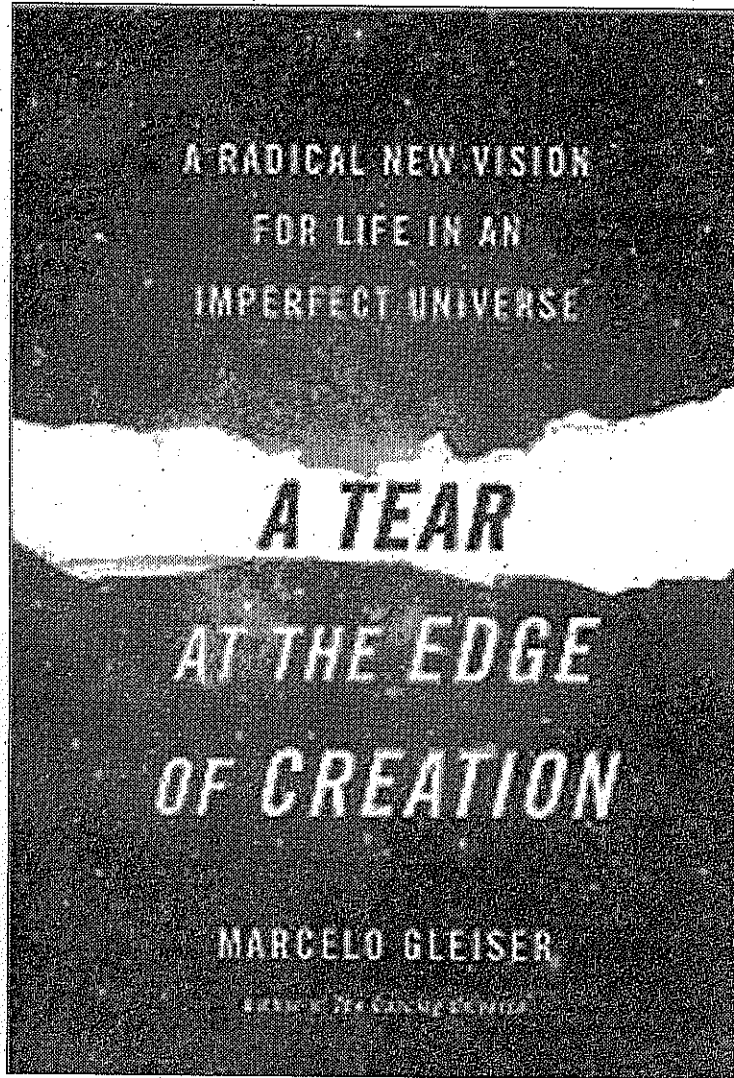
"We may not be the measure of all things but we are the only things that can measure," he notes.

Gleiser has an almost uncanny ability to express himself using language that is memorable as well as slightly off the beaten literary track, especially for authors who have tackled this subject matter in the past.

"Creation is a loaded word. It means very different things to different people," Gleiser observes in chapter 16, "From Creation Myths to the Quantum: A Brief History." "There is something deeply intimidating about a time before humans, before life itself, a time beyond our control, lost in a past where no Earth or Sun existed, a time before stars."

Witness how he describes the big bang theory:

"Suddenly, a trembling, a vibration, an ordering began. Like roiling waves, space shuddered and swelled. What was near became far. What was now became past. This is the creation story of our generation. The Holy



"A Tear at the Edge of Creation: A Radical New Vision for Life in an Imperfect Universe," by Marcelo Gleiser. New York: Free Press, 2010. 285 pages, \$25.

Trinity here is Space, Time, and Matter. The Universe happened on its own, a bubble of space that burst into existence from a sea of nothingness."

In a kind of confessional storytelling style, Gleiser interjects intriguing anecdotes throughout the book that serve to personalize his argument and strengthen the connection between scientific inquiry and everyday life.

"When I was a boy, I was terrified of the dark," Gleiser writes. "What the eyes couldn't see, the mind would invent. The night-light at the foot of my bed only made things worse; its pale green flicker animating the dance of the wooden shapes. Like a human ostrich, I would bury myself under the covers and put a pillow over my head, hoping that if I couldn't see the shadow-beings, they couldn't see me either."

The significance of those childhood experiences — which many of us shared in our youth — becomes more apparent as you delve deeper into the book.

"A Tear at the Edge of Creation" consists of 56 relatively short chapters arranged in four major sections. At the conclusion of the main text are nine pages of chapter notes and four pages of references. You may not agree with his primary thesis, but it is hard to deny that he does an outstanding job of making his case.

By the way, the divergence between symmetry and asymmetry, which was mentioned in the quote at the beginning of this review, turns out to be a pivotal concept in the book; its relevance becomes more apparent the further you delve into Gleiser's ideas.

In the final analysis, Gleiser is guardedly optimistic about our prospects.

"After five millennia of intense searching and hoping for some kind of ultimate explanation for everything, religious or scientific, we must move on," he concludes in the final chapter, "A New Directive for Humanity."

"We have a chance to change the course of things and salvage the world we grew up loving," he adds. "We should not be gambling with our children's future."

"A Tear at the Edge of Creation" is a good book; it will be especially interesting and thought-provoking to anyone who is at one of those times in life when we find ourselves wondering what it all means. Gleiser doesn't necessarily provide all the answers, but he does give us a lot to ponder late at night when we are alone with our thoughts.

— Reviewed by Aaron W. Hughey, Department of Counseling and Student Affairs, Western Kentucky University.