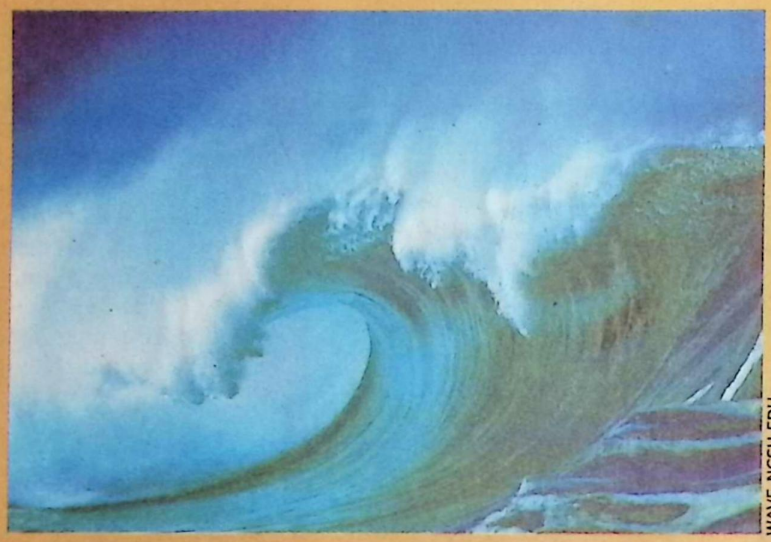
Planetary waves speeding up



WAVE-NCSU.EDU

Gigantic ocean waves, spanning hundreds of kilometres from crest to crest, are speeding up due to global warming, a new model by Canadian scientists suggests. Geophysicists at the University of Victoria, British Columbia, predict that as the ocean surface warms these so-called planetary waves will further speed up according to a model tracking changes to ocean wave patterns over the 20th and 21st centuries. Although global warming has already increased the speed of the waves, no one has noticed because satellites have not been monitoring their speeds for long enough. The model also shows that by the end of the 21st century, the waves will be a further 20 to 40 per cent faster compared with pre-industrial speeds. The faster planetary waves will in turn have an effect on global weather.

Loopy universe

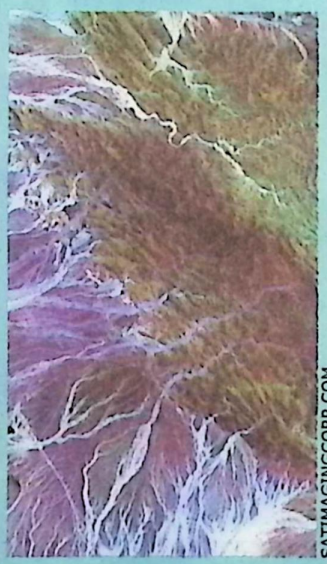


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While the mathematics appears to show that the universe started with a Big Bang, few cosmologists actually believe this to be the case! Now, a new mathematical model, based on the theory of "Loop Quantum Gravity," purports to show that space-time did not begin with a singularity 13.7 billion years ago. Instead, the model suggests that a universe pretty much like the one we live in today existed before, except it was contracting instead of expanding. The gravitational energy grew so large as the previous universe contracted that it ignited the current expansion, making a "Big Bounce" rather than a Big Bang. If ever proven, the idea could force a complete rethinking of the origins of the cosmos and perhaps even open a doorway to an endless future.

Treeless wonder

Planting trees, to 'off-set' carbon dioxide emissions, is seen as a way to reduce global warming. However, trees also change the earth's albedo, or its ability to reflect sunshine. American climatologist, Govindasamy Bala set off an environmental storm recently by comparing a deforested world with a standard world in a climate model that measured the global carbon cycle. A totally treeless world would be 0.3 C cooler by 2100, he claimed. Although this world would have higher carbon dioxide in the atmosphere and oceans, it would reflect more sunlight, thereby lowering the temperature. The scientist advises against deforestation to mitigate global warming, however because of "the many economic and environmental benefits of forests"!



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