



Cosmic Cataclysm: Solar System Engulfed by Gas and Dust

Description

Our solar system passed through a massive cloud of gas and dust about 14 million years ago. This cloud, known as the Radcliffe wave, obscured Earth's view of the night sky. It might have also left clues in our planet's geological history.

Scientists have identified vast waves of stars, gas, and dust in the Milky Way that move in a pattern over millions of years. One of these waves, the Radcliffe wave, is nearly 9000 light years wide and was located only 400 light years from our solar system.

Researchers, led by Efrem Maconi from the University of Vienna, have used data from the Gaia space telescope to study the Radcliffe wave. They discovered that this wave once passed very close to our solar system between 11 and 18 million years ago.

By tracking the movement of stars within the wave, scientists determined that our solar system intersected with the Radcliffe wave around 14 million years ago. This cosmic encounter may have dimmed the light reaching Earth, creating a darker galactic environment. It could also have influenced Earth's climate during the Middle Miocene period.

Studying these galactic encounters provides valuable insights into Earth's geological history and how cosmic events may have impacted our planet's past.

Topics: Astronomy, Radcliffe wave, Gaia space telescope, Milky Way, Earth's geological history

CATEGORY

1. Sci/Tech - LEVEL3

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