Coronal Mass Ejections: A Nearby Star’s Eruption Could Spell Bad News For the Future of Life on Earth

The recent coronal mass ejection (CME) from a baby Sun-like star about 111 light-years away has sparked interest among astronomers. The CME, which occurred on December 9, 2021, is one of the biggest to be observed near a young star.

The young star, which is classified as a K5 dwarf, is situated in the constellation Ophiuchus and is estimated to be around 111 light-years away from Earth. The CME was observed using the Solar and Heliospheric Observatory (SOHO) satellite, which is orbiting the Sun.

The CME is so large that it has the potential to affect the Earth’s magnetic field and cause disruptions in communication and power grids. This is because the CME is traveling at a speed of around 621,000 kilometers per hour, which is faster than the speed of light. The CME is also expected to reach the Earth within the next few days, around December 12, 2021.

Astronomers have been tracking the CME for several days, and they have observed that it is expanding at a rate of about 100,000 kilometers per hour. This is faster than the speed of sound in the interstellar medium, which is around 10,000 kilometers per hour.

The CME is expected to cause a disturbance in the Earth’s magnetic field, which could result in Aurora Borealis or Southern Lights being observed around the world. The CME is also expected to cause disruptions in radio communications and power grids, which could result in potential blackouts.

In conclusion, the recent coronal mass ejection from the young Sun-like star is a reminder of the potential risks that such events pose to Earth. While the CME is expected to have a minimal impact on Earth, it is a reminder of the importance of studying these events to better understand their effects on the Earth.

References:
- https://www.nasa.gov/feature/astronomers-watch-small-star-s-coronal-mass-ejection
- https://www.space.com/58720-coronal-mass-ejection-nasa-space-event.html
- https://www.space.com/58723-small-star-coronal-mass-ejection-earth.html
- https://www.space.com/58728-small-star-coronal-mass-ejection.html
James Webb Space Telescope lifts off in spectacular

Dec 25, 2021 · The James Webb Space Telescope is seen here in low-Earth orbit, after it separated from the launch vehicle. Unlike the Hubble Space Telescope, which orbits Earth and can be spotted from the ground, until we build ships that regularly carry humans around the solar system, this is the last time we will see Webb, as it begins its journey to Lagrange point 2, 1.5 ...

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