

NOST

Tiny Satellite Probes the Mysteries of the Universe

The MOST microsatellite launched by Canada on June 30, 2003, is seeking to determine the age of the stars in our galaxy and reveal some of the mysteries of the universe. Weighing only 54 kg and orbiting 820 km above Earth, this spacecraft has a satellite platform the size of a suitcase and a lens about the diameter of a dinner plate—this makes MOST the smallest space telescope ever built. Unlike ground telescopes, MOST can observe a star continuously for periods of up to eight weeks.

MOST is astonishingly powerful for its size. To ascertain the age and composition of stars, it measures the oscillations in the intensity of light they emit.

The scientific team who designed this ingenious Canadian telescope, led by Dr. Jaymie Matthews of the University of British Columbia, made an important astronomical discovery in 2004. MOST's observations of Procyon, one of the brightest stars in the night sky, showed that, contrary to what Earth-based observations had suggested, Procyon does not pulsate. MOST has thus cast doubt on Earth-based measurement models for stellar oscillation. The little Canadian telescope has already begun to extend the frontiers of space science.

MOST is the fruit of a partnership between the University of British Columbia, Dynacon, the University of Toronto Institute of Aerospace Studies (UTIAS), CRESTech, Routes AstroEngineering, and the Canadian Space Agency.

