[구SS-03] Discovery of 500-day period component in the Earth's polar motion

나성호, 조정호, 백정호, 곽영희, 박필호
Korea Astronomy and Space Science Institute

Earth's polar motion has been known for more than one century, and it has been monitored by astrometric observation and recently by space geodetic technique. The Chandler and the annual wobbles are two dominant parts of Earth's polar motion. But according to our recent analysis on a relevant and accurate dataset, another polar motion component, of which period is about 500 days, exists with an amplitude of 20 milliarcseconds in average. This third largest component of polar motion should be caused by resonance of unidentified oscillating mode of Earth, possibly Earth's inner core wobble.

[포SS-04] 61 days before the Megaburst of 17P/Holmes

Ji-Beom Ham
Seoul National University

A Jupiter-family comet, 17P/Holmes, suddenly underwent a spectacular outburst on 2007 October 23, about 173 days after the perihelion passage. There has been no more outstanding comet outburst than the 17P/Holmes event since the beginning of modern astronomical observations. However, little is known about the activity of the comet before the outburst because of the accidental event. We found that 17P/Holmes appeared in the AKARI all sky survey data. It was taken on 2007 August 23,

112 days after the perihelion passage and 61 days before the outburst. The 9 micron images shows obvious coma and tail. We study the dust production rate from these images and evaluate the fractional active area. We compare these results with those of data after the outburst, and discuss the aftermass.