

[포ST-15] **Precise radial velocities of Polaris: Detection of Amplitude Growth**

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We present a first results from a long-term program of a radial velocity study of Cepheid Polaris (F7 Ib) aimed to find amplitude and period of pulsations and nature of secondary periodicities. 264 new precise radial velocity measurements were obtained during 2004-2007 with the fiber-fed echelle spectrograph Bohyunsan Observatory Echelle Spectrograph (BOES) of 1.8m telescope at Bohyunsan Optical Astronomy Observatory (BOAO) in Korea. We find a pulsational radial velocity amplitude and period of Polaris for three seasons of 2005.183, 2006.360, and 2007.349 as  $2K = 2.210$

$\pm 0.048$  km/s,  $2K = 2.080 \pm 0.042$  km/s, and  $2K = 2.406 \pm 0.018$  km/s respectively, indicating that the pulsational amplitudes of Polaris that had decayed during the last century is now increasing rapidly. The pulsational period was found to be increasing too. This is the first detection of a historical turnaround of pulsational amplitude change in Cepheids.

[포ST-16] **RR Lyrae Variable Search using a Small Remote Telescope**

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We observed globular clusters M3 and NGC 5466 using a 155mm small refractor. There are equipped an Apogee AP9E CCD camera and an auto-guide system. Normally we exposed 600s for RR Lyrae stars in globular clusters. We performed PSF photometry using IRAF/DAOPHOT. As a preliminary result, we confirmed about 80 RR Lyrae stars in the outer region of M3. We will show the improved observing system and the preliminary light curves of RR Lyrae stars for M3 and NGC 5466.