

[P12-2] The First Discovery of SX Phoenicis Type Components in the Semi-Detached Algol-Type Eclipsing Binary: QU Sge

Young-Beom Jeon¹, Seung-Lee Kim¹, Ho Lee², Myung Gyoon Lee³,
Jae-Woo Lee⁴

¹*Korea Astronomy and Space Science Institute*

²*Korea National University of Education*

³*Seoul National University*

⁴*Chungbuk National University*

Through the time series CCD photometry to search for pulsating blue straggler stars (BBSs) in the globular cluster M71, we discovered pulsating components in the semi-detached Algol-type eclipsing binary QU Sge. QU Sge is only divided about 80 arcsec from the center of M71 and located in the BSS region in the color-magnitude diagram of M71. From the study of relative proper motions, it is known a member of stars with a membership probability greater than 60%. An orbital period and two pulsational periods are 3.790797day and 40.13min and 36.12min, respectively. It is the first discovery of SX Phoenicis type components in the semi-detached Algol-type eclipsing binary.

[P12-3] Search for Variable Stars in the Field of NGC 129

Eun-Jeong Lee^{1,2}, Young-Beom Jeon¹, Yoon-Ho Park¹, Hong-Suh Park²

¹*Korea Astronomy and Space Science Institute*

²*Korea National University of Education*

We present a photometric search for variable stars in the field of the open cluster NGC 129. The observations were carried out for 5 nights in October, 2004 using the 155mm refractor with 2048×3072 CCD at Bohyunsan Optical Astronomy Observatory. The CCD gives a scale of 1".77 per pixel and a field of view of 60' × 90'. Through the time-series data, we have detected more than 40 variable stars including newly discovered several δ Scuti type stars, long term variable stars and eclipsing variable stars in the observed field.