

# 1982년도 學術大會 發表 論文抄錄

다음은 한국 천문학회 1982년도 춘계 및 추계 학술 대회에서 발표되었던 총 29편의 논문 초록을 그 발표 순으로 실은 것입니다.

## 春季 學術大會

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### Orbital Element Determination of 1664 Comet

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With the abundant records for the 1664 Great Comet available in Korean sources, mainly Sungjungwon Ilgi and Seongbyundamrok, enable us to derive the orbital elements of the Comet. These elements seem to be consistent with the records as well as with Lindelof's.

Both elements are given below:

PARK(1982)	Lindelof(1854)	PARK(1982)	Lindelof(1854)
$T$ 1664 XI 29.599UT	1664 XII 4.9834UT	$II$ 80.°57098	81.°2637
$q$ 1.022998 AU	1.02553 AU	$\omega$ 308.°08716	310.°6970
$i$ 161.°98456	158.°69669	$e$ 1.0	1.0

### 식연성 TV Cassiopeiae에 관한 궤도운동의 분석

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1951년 이후에 발표된 55개의 광전측광으로 얻은 극소시 분석을 해 보았다. TV Cassiopeiae는 그 반성은 진화과정에 있어서 주계열성 진입 이후의 상태에 놓여 있는 별이라 논의되고 있었지만, 주기 변화율은  $4.08 \times 10^{-9}$  day/cycle로 (O-C) 곡선이 감소의 일로를 달리며 포물선을 그리는 특성을 나타내고 있다. 자전 운동의 역학적 고찰을 한 결과로 이론적인 주기 변화치와 관측치를 비교해 본 즉 큰 차이가 나타나므로 이 system은 Eddington model에 따르는 별로 되어 있는 것으로 사료된다. 그러나 포물선 특성을 지닌 주기 변화에 관한 해석으로는 converging spiral orbit를 창안해 보았다. 이 생각에 따라 식연성의 진화 과정에 있어서 Algol,  $\beta$  Lyrae, W UMa형의 일관적인 단계를 한 system이 밝고 지나간다는 것을 여기에 주장해 보는 것이다.

### Photometric Investigation of V711 Tauri

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A total of 441 photoelectric observations in B and V is made for the brightest, non-eclipsing,

RSCVn binary V711 Tauri using the 40-cm Cave reflector of Yonsei University Observatory. The internal probable error for a single observation determined with 28 yellow observations of the check star (12 Tauri) turned out to be small enough ( $\pm 0.0079$ ), so that the study of the peculiar and the small range light variability of the order of 0.1 magnitude in the V711 Tauri system became available. The photometric results thus obtained from our 1981~82 observations are presented.

### Photometric studies on three well known apsidal motion systems

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Three well known apsidal motion systems (CW Cep, Y Cyg, and AG Per) were observed using the photometer attached to the 40cm Cave reflector of Yonsei University Observatory in late 1981. Out of many attempts a total of 10 times of minimum light in the yellow and blue for three stars was made, and the deduced epochs are as follow:

Star	Times of minima(JD Hel 2444000+)	$\underline{O}-\underline{C}$	Filter	Type of Min.
Y Cyg	897.0686 $\pm$ 0.0002	+0.0287	V	I
	0689 $\pm$ 0.0002	+0.0290	B	I
AG Per	898.0905 $\pm$ 0.0002	+0.0327	V	II
	.0912 $\pm$ 0.0002	+0.0334	B	II
	902.1450 $\pm$ 0.0002	+0.0297	B	II
	.1456 $\pm$ 0.0002	+0.0303	V	II
CW Cep	909.0548 $\pm$ 0.0002	-0.0082	V	I
	.0580 $\pm$ 0.0002	-0.0050	B	I
AG Per	915.2660 $\pm$ 0.0002	-0.0360	V	I
	.2664 $\pm$ 0.0002	-0.0356	B	I

Due to a lack of observations for last 5~6 years for each star, our observation holds its importance for the rediscussion and the refinement of the apsidal period and constants.

### Photoelectric Observation of TX UMa

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B.V. photoelectric observation of TX UMa was observed for sixteen nights in this year with the 24 inch reflector at Yonsei University Observatory. The obtained full light curve will be presented.

### Surface Photometry of Spiral Galaxies, M31, M81, and NGC 2403

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Photoelectric surface photometry in three colors has been obtained from drift scan observations along the W-E line for M31, M81, and NGC 2403, and photographic surface photometry has been carried out for NGC 2403. In M31 and M81, spiral arms and dark lanes appear in the luminosity