

---

## 1987년도 學術大會 發表 論文抄錄

---

다음은 한국천문학회 1987년도 춘계 및 추계 학술대회에서 발표되었던 총 20편의 연구 논문 초록과 한국 지구과학회와의 공동특별행사에서 발표된 4편의 논문 초록을 실은 것입니다.

---

### 春季 學術大會

일시 : 1987年 5月 9日

장소 : 과학기술회관 2층 회의실

### <研究論文>

#### **Radio Structure of Cometary HII Region**

Choe, Seung-Urn

*Department of Earth Science, Seoul National University*

A simple analysis has been made to describe the radio appearance of nonspherical Strömngren region (e.g., comet-shaped HII region), assuming that (1) ionizing photons are conserved to a given solid angle within which they are emitted, and (2) a supersonic motion of a surrounding medium creates a shocked region in front of the head part of the nonspherical Strömngren region.

On the basis of this calculation, a model for the cometary HII region G34.3+0.2 has been constructed to obtain dynamical parameters of the surrounding medium ( $v=1,700\text{km/s}$ , at  $a_0=1\text{ km/s}$ ). The theoretical radio appearance of the model reproduces both the emission maximum at the head part and the dominant shell structure as the radio observation of G34.3+0.2 has displayed.

#### **The Orion Dust: Its Radial Distribution and Optical Properties**

Shin, Junho and Hong, Seung Soo

*Department of Astronomy, Seoul National University*

By inverting the brightness integral for the dust-scattered continuum, we have determined the distribution and optical properties of dust grains inside the Orion nebula. The scattering characteristics of the Orion dust at a given wavelength is kept constant within the nebula, and the nebula is assumed to have a hemispherical shape. The resulting radial distance dependence of the number density of dust grain shows that the dust grains are depleted at the central region of the nebula and concentrated in the region  $5'\sim 6'$  away from the Trapezium. The scattering characteristics of the Orion dust is of moderately forward throwing nature and has low values of albedo. Physical causes for the dust-depleted central hole will be briefly discussed.