

[초ST-13] 항성종족론 연구의 신증흥기

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최근 이루어진 구상성단내 다중항성종족의 발견은 항성계의 형성 및 진화, 더 나아가 우리 은하의 형성 등에 획기적인 변혁을 필요로 하는 중요한 사건이다. 본 발표에서는 항성종족이론이 현재 직면한 문제점들과 해결 방안들을 대한 검토와 KGMT시대에 대비한 전망을 토의할 것이다.

[구ST-14] Stellar populations of Galactic Globular Cluster ω Cen using HST/WFC3 near-UV observations

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The most massive galactic globular cluster, ω Cen has been observed using recently mounted WFC3/UVIS cameras of Hubble Space Telescope at both near-UV and optical bands. We present the photometry of stars in the central region of ω Cen in F225W, F275W and F336W bands. The near-UV color-magnitude diagrams and color-color diagrams of stars in ω Cen show multiple red giant branches and main sequences as already discovered in both ground-based and HST/ACS observations in the optical bands.

We modelled the stellar populations of ω Cen using Yonsei Isochrone, where α -particles and helium enhancement processes have been included properly. We compare the best-fit stellar populations obtained from the current near-UV observations to the suggested stellar population models based on optical band data. We also discuss the methodological issues arising when dealing with the near-UV observations; red-leak in near-UV filters and the huge interstellar extinction in near-UV bands compared to the optical bands and its non-linear effect in color-magnitude diagrams.