

[초IT-01] Extragalactic Globular Cluster Systems and Galaxy Formation

Suk-Jin Yoon
Yonsei University

The past three decades have witnessed a renaissance in the field of extragalactic globular clusters (GCs). GC systems have now been investigated in galaxies ranging from dwarfs to giants and spanning all the morphological types. Detailed studies of GCs provide strong constraints on galaxy formation that can be obtained in the near-field. In this talk I will review some of the pivotal studies performed with the HST and large ground-based telescopes and state-of-the-art simulations. Also, I will attempt to introduce my new solution to a long-standing puzzle in this field---the origin of GC bimodality in color. I will show that the theory gives a simple, cohesive explanation for the key observations of extragalactic GCs. The implication of the results will be discussed in the context of formation of GC systems and their parent galaxies.