

# Unified Approach to Stellar Population Synthesis

Jang-Hyun Park

Korea Astronomy & Space Science Institute

Empirical and evolutionary population synthesis have been major streams for population studies of integrated stellar systems. Each one has its own merits and shortcomings. The empirical method uses data collected from real stars and clusters. There is no need for priori assumptions, but we still suffer from the lack of stellar libraries. The evolutionary method uses data from theoretical model libraries. We just weave model libraries into galaxies, but we need so many assumptions at every knot. The basic idea of the unified method is to incorporate two traditional synthesis methods into one. Possibilities that merits and shortcomings of each method could be compensated will be discussed. Methods for building the unified model and astrophysical constraints imposed on the model for realistic modeling will be also discussed.