

[초 HA-03] K-GMT Science Program with Gemini Observatory: Step Stone to GMT Science

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Korea Astronomy and Space Science Institute (KASI) joined the Gemini Observatory as a 'Limited-Term Partner' in 2014, and is providing the Gemini facility for Korean community through K-GMT Science Program starting from 2015. The access to Gemini facility is expected to open a new window of opportunities in the field of optical and infrared observational researches and to help efficient development of science cases for GMT. We will present the short and long-term expectations and possible outcomes of the KASI-Gemini partnership.

[구 HA-04] Building on successful existing collaborations with the University of Arizona

Jinyoung Serena Kim
Steward Observatory/University of Arizona

Scientific collaborations and observational programs have been on-going between astronomers in Korea and the Steward Observatory/University of Arizona. I will present such existing collaboration models/examples between research groups or individuals and astronomers in KASI or in other institutions and universities in Korea. Building on existing collaborations we would like to further develop opportunities for future scientific collaborations and encourage scholarly exchanges between students, researchers, and faculty members in Korea and Steward Observatory/University of Arizona. In this talk I will also discuss current status of observational programs of Korean astronomers using U of A facilities (MMT and Magellan), as well as successful collaboration examples between Steward Observatory and astronomical institutions in other countries.

[구 HA-05] Recent Developments at the Large Binocular Telescope Observatory, GMT's forerunner

Christian Veillet
Large Binocular Telescope Observatory

After a short description of the telescope, we will

report on the recent developments in three main areas:

- Commissioning of the last of LBT's first generation instruments, now well underway,
- Adaptive Optics (AO) and ground-layer AO progress and planned upgrades,
- Interferometry first science results.

We will also explore the future of the facility as it moves to full operation and strive to be the first of the ELTs in the decade-long window in which GMT, TMT, and E-ELT break ground and start taking shape.

항성 / 항성계 / 외계행성

[구 ST-01] Distance and Reddening of NGC 6791 using Empirically Calibrated Isochrones

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Although the theory of stellar structure and evolution is considered one of the most successful developments in astrophysics, there still remains a significant mismatch between theoretical stellar models and the observed main sequence of the best studied nearby open clusters. To ease the tension, empirical corrections to the color-temperature transformations are used as a simple, but practical way of overcoming the difficulty than directly examining stellar atmosphere models that have large theoretical complexities and uncertainties. I will describe our continuing effort to calibrate stellar isochrones using cool main-sequence stars in Praesepe, complementing our previous work based on the Hyades and the Pleiades, and provide an extensive test of our models using photometry of cool and metal-rich main-sequence stars in NGC 6791. Finally, I will discuss the implication of our results on the mass loss in NGC 6791.

[석 ST-02] Spectroscopic Survey of G and K Type Dwarfs in the Hipparcos Catalog

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