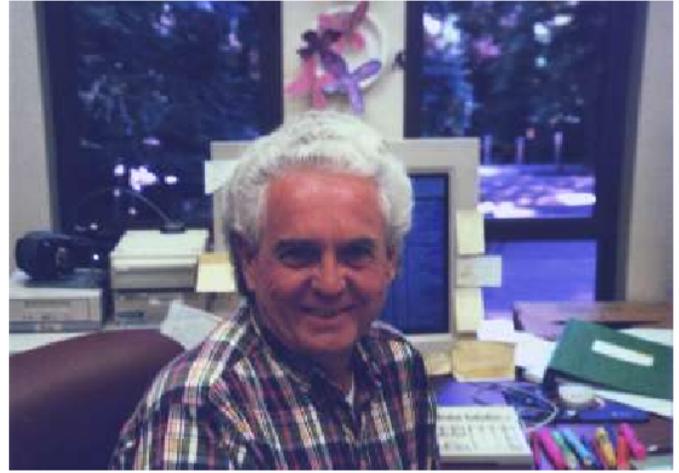


Dr. Harland W. Epps

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Research Interests and Activities:

Harland Epps' research, over much of his career, has been devoted to the optical design of new high-performance instrumentation for research in astronomy. Examples include: spectrograph and wide-field corrector optics for the 3-m Shane telescope at Lick; spectrograph and near-ir camera optics for the 5-m Hale telescope at Palomar; the LRIS and HIRES spectrograph cameras and null-test lenses for the 10-m Keck telescopes; spectrograph optics and wide-field correctors for the converted 6.5-m MMT and the 6.5-m Magellan telescopes; as well as the optical design concepts and camera designs for ESI, the medium-resolution echellette and for DEIMOS, the low-resolution multi-object spectrograph and imager, which are primary instruments on Keck 2. His bibliography includes more than 245 technical reports and published papers.

Some of Epps' more recent designs include: Flamingos-2, a cryogenic near-ir spectrograph for the 8-m Gemini-South; BINOSPEC, a large-beam, faint-object, binocular aerial spectrograph for the MMT; IMACS, the imaging spectrograph for Magellan I; cameras for the MRS and HRS (medium- and high-resolution) spectrographs for the 9.2-m HET; and the Goodman all-refracting ultraviolet spectrograph for the 4.2-m SOAR telescope. His current designs include the MOSFIRE cryogenic near-ir spectrograph being built by UCLA, CIT and UCSC for Keck 1 and uv/vis and red/ir cameras for KCWI on Keck 2. Epps' research has also contributed to new optical fabrication and testing techniques for highly aspheric surfaces.

During the past several years, Epps participated as a Science Team Member in reduction of infrared data from the NICMOS instrument on Hubble Space Telescope. He enjoys teaching and working individually with students, postdoctoral scholars and his colleagues as well. Epps has served as an Associate Editor of PASP for Instrumentation and currently, he serves as a Consultant in Optical Design to more than 15 major research groups at various universities, observatories and laboratories throughout the country and abroad. He has been active as an advisor to NOAO, to the Los Alamos National Laboratory and as a Member of the Scientific Advisory Board of the United States Air Force. Epps' biography is listed in Marquis *Who's Who in America*.

Representative Publications:

1. "Preliminary optical design for the Flamingos-2 near-infrared multi-slit spectrograph and imager for Gemini-South," H. W. Epps, and R. Elston, *S.P.I.E. Proceedings: Instrument Design and Performance for Optical/Infrared Ground-Based Telescopes*, **4841**, 1280-1294, 2003.
2. "Athermalizing Refractive Optics with Fluid Lenses," H. W. Epps, and D. G. Fabricant, *PASP* **114**, No. **801**, November, 2002.
3. "Optics for a Volume Holographic Grating Spectrograph for the Southern Astrophysical Research (SOAR) Telescope," J. C. Clemens, H. W. Epps, and S. Seagroves, *S.P.I.E. Proceedings: Optical and IR Telescope Instrumentation and Detectors*, **4008**, 1423-1435, 2000.
4. "Echellette Spectrograph and Imager (ESI) for Keck Observatory," H. W. Epps and J. S. Miller, *S.P.I.E. Proceedings: Optical Astronomical Instrumentation*, **3355**, 48-58, 1998.
5. "Development of Large High-Performance Lenses for Astronomical Spectrographs," H. W. Epps, *S.P.I.E. Proceedings: Optical Astronomical Instrumentation*, **3355**, 111-128, 1998.