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Howard A. MacEwen
James B. Breckinridge
Editors

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Introduction

This conference concentrates on new innovative ideas for astronomical telescopes and technologies. It provides an opportunity for scientists and engineers to come together and communicate revolutionary ideas for the next generation telescopes and their supporting technologies. Astronomers are now preparing material for the National Academy of Sciences 2010 Decadal report supported by NSF, NASA, and DOE. This document sets priorities for the astronomical community in space and ground astronomy for the next 10 years. Many new concepts have been developed recently and some were presented here.

To maximize the science return at minimum cost is critically important to the success of the next astronomy and astrophysics space missions. The development of new technology driven by scientific measurement requirements will enable cost savings in the future.

Phil Stahl presented an important paper on cost models for ground and space telescopes. Reports were given on concepts for the high priority Joint Dark Energy Mission.

New information was provided on the New World's Observer, a very innovative approach to the detection and characterization of exoplanetary systems.

The next generation optical UV telescope may need to be 8-meters aperture in order to achieve high-priority objectives of the scientific community. Several papers were presented on this topic. Ken Carpenter presented the results of his study on the Stellar Imager, which will be a 100 to 1000 meter baseline aperture interferometer with a focal length of 1 to 10 km designed to provide information that will enable the reconstruction of an image across the surface of stars.

In summary this meeting was very successful and we all look forward to the Astronomical Telescopes and Instruments biennial meeting to be held in San Diego, summer 2010.

James B. Breckinridge
Howard A. MacEwen