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UV/Optical/IR Space Telescopes: Innovative Technologies and Concepts III

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Introduction

As described in the Call for Papers, the purpose of this conference was to seek "papers that discuss highly innovative, indeed radical, space telescope technologies and concepts for new telescopes that do not fall within conventional categories". Papers received fell within a few broad categories, and are presented in that manner in this volume. To provide a grounding in what is probably the most significant new space telescope system, the conference opened with a session describing the current status of important elements of the James Webb Space Telescope (JWST). Two sessions were then devoted to means for using interferometry in space telescopes, both in the context of specific mission and system concepts and in general, underlying technology terms. The following four sessions considered general technologies and concepts from which future systems can be expected to emerge; these included possible supporting infrastructure developments, introductory descriptions of several new system concepts, telescope and mirror technologies, and wavefront sensing and control. The conference concluded with a Joint Session with Conference 6693: Techniques and Instrumentation for Detection of Exoplanets III. This Joint Session addressed three principal topic areas:

- Description of the mission concept, science requirements, and enabling technologies for the New Worlds Observer (NWO) terrestrial planet finder, also known as the Terrestrial Planet Finder – Occulter (TPF-O).

- Recent developments in space-borne formation flying, needed for the TPF-O and other missions such as the Terrestrial Planet Finder – Interferometer (TPF-I).

- An introductory overview of the current status of the TPF-I mission concept.

James B. Breckinridge
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