

Ground-based and Airborne Telescopes III

**Larry M. Stepp
Roberto Gilmozzi
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Editors

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- 7733 1R **Boundary layer seeing measurements in the Canadian High Arctic** [7733-59]
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- 7733 1S **Gattini 2010: cutting edge science at the bottom of the world** [7733-60]
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(Australia); J. W. V. Storey, The Univ. of New South Wales (Australia); L. Wang, Purple Mountain Observatory (China) and Texas A&M Univ. (United States); H. Yang, Polar Research Institute of China (China); J. Yang, Purple Mountain Observatory (China); X. Zhou, National Astronomical Observatories (China); Z. Zhu, Purple Mountain Observatory (China)

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- 7733 2B **CFRP truss for the CCAT 25m diameter submillimeter-wave telescope** [7733-79]
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- 7733 2Q **LSST Telescope primary/tertiary mirror cell assembly** [7733-95]
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- 7733 2R **Six degrees of freedom, sub-micrometer positioning system for secondary mirrors** [7733-96]
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- 7733 27 **The heat stop for the 4-m European Solar Telescope EST** [7733-105]
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- 7733 33 **The enclosure for the European Solar Telescope (EST)** [7733-109]
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- 7733 35 **Multi-Application Solar Telescope: assembly, integration, and testing** [7733-111]
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- 7733 36 **Current concept for the 4m European Solar Telescope (EST) optical design** [7733-112]
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- 7733 39 **Measuring the water vapor above the SOFIA Observatory** [7733-115]
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- 7733 3G **A new optical design for dismountable and portable catadioptric telescope** [7733-122]
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- 7733 3O **DSS-28: a novel wide bandwidth radio telescope devoted to educational outreach** [7733-132]
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- 7733 3R **Characterization of surface tilt of foundations for high-precision radio-astronomic antennas** [7733-135]
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- 7733 3W **A partially foldable light weighted dome for fast pointing 3m-class telescopes** [7733-140]
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- 7733 3X **Monitoring of the environmental conditions inside the dome of the 4m Blanco Telescope at CTIO** [7733-141]
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- 7733 40 **Field stabilization (tip/tilt control) of E-ELT** [7733-144]
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Jeremy J. Wagner, National Optical Astronomy Observatory (United States)

Poster Session: Solar Telescopes

Richard F. Green, Large Binocular Telescope Observatory and the University of Arizona (United States)

Poster Session: Airborne Telescopes

Helen J. Hall, Stratospheric Observatory for Infrared Astronomy (United States)

Richard J. Kurz, Joint ALMA Observatory (Chile)

Poster Session: New Telescope Designs

Richard J. Kurz, Joint ALMA Observatory (Chile)

Torben E. Andersen, Lund Observatory (Sweden)

Poster Session: Radio Telescopes

Simon J. E. Radford, California Institute of Technology (United States)

Poster Session: Radio Telescope Arrays

Göran Sandell, SOFIA/Universities Space Research Association (United States)

Poster Session: Control of Telescope Disturbances—Wind, Vibration, and Thermal

Tomonori Usuda, National Astronomical Observatory of Japan/Subaru Telescope (United States)

Poster Session: Observatory Upgrade Programs

Jeremy J. Wagner, National Optical Astronomy Observatory (United States)

Poster Session: Site Testing and Characterization

Jean-Gabriel Cuby, Observatoire Astronomique de Marseille-Provence (France)

Xiangqun Cui, Nanjing Institute of Astronomical Optics & Technology (China)

Poster Session: Design of Antarctic Telescopes

Xiangqun Cui, Nanjing Institute of Astronomical Optics & Technology (China)

Poster Session: Technology for Future Giant Telescopes

Philippe Dierickx, European Organisation for Astronomical Research in the Southern Hemisphere (Germany)

Thomas A. Sebring, Cornell Caltech Atacama Telescope Project (United States)

Poster Session: Segmented Mirror Control

Jason Spyromilio, European Organisation for Astronomical Research in the Southern Hemisphere (Germany)

Torben E. Andersen, Lund Observatory (Sweden)

Poster Session: Lessons Learned During Integration and Commissioning

Simon J. E. Radford, California Institute of Technology (United States)

Poster Session: Design of Telescope Subsystems

Frank W. Kan, Simpson Gumpertz & Heger Inc. (United States)

Poster Session: Telescope Optics

Philippe Dierickx, European Organisation for Astronomical Research in the Southern Hemisphere (Germany)

Introduction

This is the third time the Ground based and Airborne Telescopes conference was held within the SPIE Astronomical Telescopes and Instrumentation Symposium. The participation of scientists, engineers, and managers from around the world reflects the high interest in the use of ground-based and airborne telescopes in astronomy. The conference touched on dedicated missions applied to space observations and the latest developments in ground-based and airborne telescopes.

This year, our conference included 23 oral sessions and one poster session. Out of hundreds of paper submissions in response to the call for papers, 100 authors had the opportunity to present their papers orally. One-hundred-four participants made use of the opportunity to present their papers as posters.

The contributions demonstrated an exciting era of astronomical missions over a wide range of projects being implemented worldwide. The innovations being demonstrated in designs of telescopes in large arrays, extreme conditions, and in different wavelengths were presented. It was inspiring to see that technology has developed to the point that extremely large optical telescopes are now feasible and being implemented. Finally, projects were able to present their lessons learned for integration and commissioning.

Larry M. Stepp
Roberto Gilmozzi
Helen J. Hall

