Journal of Astronomical Telescopes, Instruments, and Systems

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Mark Clampin

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Welcome to the fourth issue of the *Journal of Astronomical Telescopes, Instruments, and Systems* (JATIS) and the last in this first year of publication.

Once again this edition features a broad range of peer-reviewed papers covering every aspect of astronomical telescopes, instruments, and their systems, including papers discussing a coronagraphic instrument for a rocket flight, telescope mirror-coating technology, a camera for studying exoplanet transits, an x-ray calibration facility, and the development of MOS imaging arrays for the far-ultraviolet.

During 2015, several JATIS papers have become some of the most downloaded SPIE Journal papers of the year. The articles "Carbon nanotube optical mirrors" by P. Chen and D. Rabin, "Transiting Exoplanet Survey Satellite" by G. Ricker et al., and "All-sky survey mission observing scenario strategy" by S. Spangle et al. each ranked in the top 100 downloads for the year. JATIS is rapidly becoming a key resource for astronomers who work in instrumentation to publish their work.

I would like to remind prospective authors that next year SPIE will hold the Astronomical Telescopes and Instruments Conference in Edinburgh, Scotland. We would like to remind prospective presenters planning to submit a paper to one of the programs at the meeting to consider preparing their presentation for publication in JATIS in cases where they might be suitable for refereed publication. A major motivation in the creation of the journal was advocacy by the instrumentation community for a means of publishing high-quality presentations from this conference in a refereed journal.

In addition to individual manuscripts, JATIS publishes special sections devoted to a particular topic. Special sections present an ideal opportunity to publish concept studies, the status of instrument or mission developments, or focus on the status of particular developments in astronomical instrumentation. We are nearing the publication of our first special section devoted to coronagraphs for the Wide-Field Infrared Survey Tele-scope—Astrophysics Focused Telescope Assets (WFIRST-AFTA), which will be guest edited by Olivier Guyon and Motohide Tamura. Future special sections will include one devoted to concepts for large aperture space telescopes. Together with my board of associate editors we would like to encourage the submission of new ideas for special sections that address specific subjects or projects. In particular we are interested in special sections that address aspects of ground-based instrumentation, such as large-scale integral field spectrographs.

JATIS will publish peer-reviewed papers covering this diverse range of topics in astronomical instrumentation, systems, and techniques, including:

- X-ray, gamma-ray, and gravitational-wave space telescopes and instrumentation
- Ultraviolet, visible, and infrared space telescopes and instrumentation
- Far-infrared, submillimeter, millimeter, and radio telescopes and instrumentation
- Design of space observatories including space environments, orbit design, deployments, and communications
- Telescope, instrumentation, and analysis techniques for high-contrast imaging of exoplanets
- Ground-based telescopes and instrumentation
- Pointing and control systems, including design, algorithms, and attitude control
- Alignment, integration, and testing of telescopes and supporting instrumentation
- Design of ground-based observatory enclosures and site testing
- Adaptive optics and interferometry for optical/infrared astronomy
- Detector systems for astronomical instrumentation
- System engineering for large observatories
- Imaging camera and spectrograph design
- Integrated modeling of telescopes and instrumentation
- Optical design and manufacturing techniques
- Innovative technologies and materials
- Data analysis techniques, data mining, and statistics
- Observatory operations and science observation scheduling

JATIS plans to print quarterly, possibly increasing in frequency as the journal grows. In addition, papers will be published online shortly after acceptance, with new papers added regularly to each online issue as they are approved for publication. Authors also have the option of obtaining permanent open access for their papers.

Mark Clampin
Editor-in-Chief