

Journal of Astronomical Telescopes, Instruments, and Systems

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JATIS seeks suggestions for special section topics

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Welcome to the third issue of the *Journal of Astronomical Telescopes, Instruments, and Systems* (JATIS). In this issue, we feature peer-reviewed papers covering all aspects of astronomical telescopes, instruments, and their systems, including the first observation of a transiting exoplanet with the Stratospheric Observatory for Infrared Astronomy (SOFIA) and first light results from the High Efficiency and Resolution Multi Element Spectrograph (HERMES). Once again the scope of papers in this issue spans the range of instrumental astronomy from x-ray optics to detector systems for wavefront sensing.

I would like to remind prospective authors that in addition to individual manuscripts, JATIS will also publish special sections devoted to a particular topic. Special sections present an ideal opportunity to publish concept studies and the status of instruments or mission developments, and to focus on the status of particular developments in astronomical instrumentation. We are anticipating the publication of our first special section devoted to Coronagraphs for the Wide-Field Infrared Survey Telescope—Astrophysics Focused Telescope Assets (WFIRST), which will be guest edited by Olivier Guyon and Motohide Tamura. My board of associate editors and I 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 and the next generation of extremely large telescopes. 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

To promote the journal, JATIS will continue to be free online through the end of 2015 in the SPIE Digital Library. JATIS will 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.

Finally, the next SPIE Astronomical Telescopes and Instrumentation conference, to be held in Edinburgh, Scotland, next year, is approaching. We urge authors planning to submit a paper to one of the programs at the meeting to consider developing their papers for submission to JATIS.

Mark Clampin
Editor-in-Chief