

# The Search for Extraterrestrial Intelligence (SETI) in the Optical Spectrum III (LA08)

Part of SPIE's International Symposium on High-Power Lasers and Applications

20–26 January 2001 • San Jose Convention Center • San Jose, California USA

*Conference Chair:* **Stuart A. Kingsley**, Columbus Optical SETI Observatory

*Program Committee:* **Barrie W. Jones**, The Open Univ. (UK); **Ragbir Bhathal**, Univ of Western Sydney (Australia); **Monte Ross**, Ultradata Systems; **Allen Tough**, Univ. of Toronto (Canada); **Dan Werthimer**, Univ. of California/Berkeley; **Douglas A. Vakoch**, SETI Institute

This third conference will emphasize the construction and instrumentation of professional and amateur optical SETI observatories and optical SETI data obtained by such observatories. There will be a panel discussion at the end of the meeting when conference attendees may question the panel and make comment. It is hoped that there will be a visit to the SETI Institute and perhaps a local optical observatory.

Papers are sought on the following topics:

- electromagnetic SETI rationales
- history of Optical SETI
- "magic" optical (infrared to ultraviolet) frequencies
- optical SETI observatories throughout the world
- fundamental uplink gain limitations
- technical limitations of ETI civilizations
- thermal (kT) noise, gravitational and other natural limitations
- professional Optical SETI
- detecting monochromatic laser beacons
- detecting pulsed laser beacons
- detecting wideband ETI data channels
- heterodyne systems
- direct detection systems
- photon counting systems
- daylight optical SETI
- symbiotic optical SETI
- optical signal processing
- generic demodulators for unknown ETI laser beacon and wideband channel
- modulation formats

- data storage
- interstellar signal dispersion and scintillation effects at optical frequencies
- planetary lasers
- high-power lasers
- optical multiplexing strategies for transmitting civilizations
- amateur optical SETI (AMOSETI)
- coordinating AMOSETI searches over the internet
- low-cost optical signal processing
- technology for analyzing spectrographic stellar plates origins program
- extrasolar planets
- planets detected to date
- technology for detection
- free-space laser communications of the terrestrial kind ground-based
- LEO & GEO communication satellites
- deep-space probes
- natural Lasers
- optical telescopes
- diffraction-limited and light-bucket OSETI telescopes
- OSETI with large ground-based telescopes
- OSETI with the Hubble Space Telescope
- OSETI with the next generation space telescope
- serendipity and nanosecond astrophysics
- observatory connectivity to the internet
- science educational aspects of SETI
- decoding the content of the message
- interstellar video and video compression systems for effective interspecies communications
- detection and post-detection protocols

**Abstract Due Date: 26 June 2000**  
**Manuscript Due Date: 18 December 2000**  
**Final Summary Due Date: 20 November 2000**

# Submission of Abstracts for High-Power Lasers and Applications symposium

Abstract Due Date: 26 June 2000

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**Submissions imply the intent of at least one author to register, attend the symposium, and present the paper (either orally or in poster format).**

Your abstract must include all of the following:

1. **SUBMIT TO:** LA08, KINGSLEY
2. **SUBMIT EACH ABSTRACT TO ONE CONFERENCE ONLY** The Search for Extraterrestrial Intelligence (SETI) in the Optical Spectrum III (LA08)
3. **ABSTRACT TITLE**
4. **AUTHOR LISTING** (principal author first)  
For all authors: First (given) name (initials not acceptable), Last (family) name, Affiliation, Mailing address, Telephone, Fax, and Email address.
5. **PRESENTATION**  
Indicate your preference for "Oral Presentation" or "Poster Presentation." Final placement is subject to chairs' discretion.
6. **ABSTRACT TEXT**  
Approximately 250 words.
7. **KEYWORDS**  
List a maximum of five keywords.
8. **BRIEF BIOGRAPHY** (principal/presenting author)

## Conditions of Acceptance

- Authors are expected to secure registration fees and travel and accommodation funding, independent of SPIE, through their sponsoring organizations before submitting abstracts.
- Only original material should be submitted.
- Commercial papers, descriptions of papers with no research/development content, and papers where supporting data or a technical description cannot be given for proprietary reasons will not be accepted for presentation in this symposium.
- Abstracts should contain enough detail to clearly convey the approach and the results of the research.
- Government and company clearance to present and publish should be final at the time of submittal.
- Applicants will be notified of acceptance by mail no later than 30 October 2000. Early notification of acceptance will be placed on the SPIE Web site the week of 25 September 2000 at [www.spie.org/info/\[sympinitial\]/](http://www.spie.org/info/[sympinitial]/)

## Paper Review

To ensure a high-quality conference, all abstracts and *Proceedings of SPIE* papers will be reviewed by the Conference Chairs for technical merit and content.

## Instructions for Submitting Abstracts

All authors are **STRONGLY ENCOURAGED** to submit their abstracts by the due date using the Web form located at URL: [www.spie.org/info/\[sympinitial\]/](http://www.spie.org/info/[sympinitial]/)

If World Wide Web access is not available, please choose only one of the following options:

- E-MAIL each abstract separately to: [abstracts@spie.org](mailto:abstracts@spie.org) in ASCII text (not encoded) format. **IMPORTANT:** to ensure receipt and proper processing of your abstract, the Subject line must include only the following:

**SUBJECT: LA08, KINGSLEY**

- or MAIL three copies of your abstract to:  
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## Publishing Policy

Manuscript due dates must be strictly observed. Whether the conference volume will be published before or after the meeting, late manuscripts run the risk of not being published in the *Proceedings of SPIE*. The objective of this policy is to better serve the conference participants and the technical community at large. Your cooperation is appreciated by all.

## Final Summary

Accepted authors will receive instructions for submission of the 200-word Final Summary in their author kit. The Final Summaries will be published and available at the meeting.

## Oral or Poster Presentation

Instructions for Oral and Poster presentations will be included in your author kit. All Oral and Poster presentations are included in the *Proceedings of SPIE* and require a manuscript.

## Proceedings of SPIE

These conferences will result in full-manuscript editor-reviewed volumes published in the *Proceedings of SPIE* that can be ordered through the Advance Technical Program. Camera-ready manuscripts are required of all accepted applicants and must be submitted in English by [msdue]. Copyright to the manuscript is expected to be released for publication in the *Proceedings of SPIE*. **Note:** If an author does not attend the meeting and make a presentation, the chair may choose not to publish the author's manuscript in the conference volume. Papers published are indexed in leading scientific databases including INSPEC, Compendex Plus, Physics Abstracts, Chemical Abstracts, International Aerospace Abstracts, and Index to Scientific and Technical Proceedings.

## Participant Registration Fee

Authors and coauthors are accorded a reduced symposium registration fee. Participants who attend the symposium and pay the Author fee may also apply for a six-month, nonvoting membership in SPIE if never before a member (membership includes *OE Reports* and choice of SPIE's Journals). Details are available at the on-site registration desk or by contacting SPIE Member Services at [membership@spie.org](mailto:membership@spie.org); or call 360/676-3290.