

Call for Papers

International Workshop on Optical SuperComputing (OSC08)

August 24, 2008, Vienna, Austria

<http://www.cs.bgu.ac.il/~osc2008>

<http://www.cs.ubbcluj.ro/~moltean/osc2008>

In conjunction with the:

Seventh International Conference on Unconventional Computing (UC'08)

Dates:

Submission deadline **May 1, 2008**
Acceptance notification **June 1, 2008**
Camera-ready copy due **June 15, 2008**

Program Committee:

Hossin Abdeldayem	<i>NASA-Goddard</i>
H. John Caulfield	<i>Fisk University</i>
Shlomi Dolev (Chair)	<i>Ben-Gurion University</i>
Hen Fitoussi	<i>Ben-Gurion University</i>
Joseph W. Goodman	<i>Stanford University</i>
Lene Hau	<i>Harvard University</i>
Mihai Oltean (Co-Chair)	<i>Babeş-Bolyai University</i>
Tobias Haist (Co-Chair)	<i>Stuttgart Universität</i>
Alastair McAulay	<i>Lehigh University</i>
Stephane Messika	<i>LRI</i>
John Reif	<i>Duke</i>
Joseph Rosen	<i>Ben-Gurion University</i>
Natan T. Shaked	<i>Ben-Gurion University</i>
Damien Woods	<i>University College Cork</i>

Steering and Organization Committee:

Shlomi Dolev	<i>Ben-Gurion University</i>
Mihai Oltean	<i>Babeş-Bolyai University</i>
Wolfgang Osten	<i>Stuttgart Universität</i>

How to submit:

Authors are invited to submit their extended abstracts electronically. A detailed description of the electronic submission procedure will appear on the workshop web-page, as of March 1, 2008. Authors unable to submit electronically should contact the program chair, Shlomi Dolev by email, dolev@cs.bgu.ac.il or by phone, +972-8-6472715 to receive instructions.

SCOPE: OCS, the International Workshop on Optical SuperComputing, is a new annual forum for research presentations on all facets of optical computing for solving hard computation tasks. Optical computing devices have the potential for being the very next computing infrastructure. Given the frequency limitations and cross-talk phenomena, as well as soft-errors of electronic devices on one hand, and the natural parallelism of optical computing devices, as well as the advance in fiber optics and optical switches on the other hand make optical computing commercial-able. Research contributions to the theory, design, specification, analysis, implementation, or application of optical supercomputers are solicited. Topics of interest include, but are not limited to:

- Design of optical computing devices,
- Electrooptics devices for interacting with optical computing devices,
- Practical implementations,
- Analysis of existing devices and case studies,
- Optical and laser switching technologies,
- Applications and algorithms for optical devices,
- Alpha practical, X-Rays and nano-technologies for optical computing,

Workshop presentations will have two formats: **Regular presentations** of 25 minutes accompanied by papers of up to 15 pages in the proceedings. This form is intended for contributions reporting on original research, submitted exclusively to this workshop. **Brief announcements** of 5 to 10 minutes accompanied by two page abstracts in the proceedings. This format is a forum for brief communications, which may be published in other workshops. Longer versions expanding the brief announcements will be collected at a web site.

The workshop proceedings will be published by LNCS Springer Verlag, and a special issue of the *Natural Computing* journal. Also, we plan to have an associated peer reviewed feature issue in an OSA journal, and we have made preliminary inquiries concerning this, updated will be post in the workshop website.

SUBMISSIONS FORMAT: The cover page should include (1) title, (2) authors and affiliation, (3) postal and e-mail address of the contact author, (4) indication of the format(s) to which the paper is submitted, and (5) a brief abstract describing the work. It is recommended that each submission begin with a succinct statement of the problem, summary of the main results, and a brief explanation of their significance, all suitable for a non-specialist. Technical development of the work, directed to the specialist, should follow. A submission for the **regular presentation** format should be no longer than 4,500 words (10 pages on letter-size paper using at least 11-point font, figures and tables included) excluding references. If the authors believe that more details are essential to substantiate the main claims of the paper, they may include a clearly marked appendix that will be read at the discretion of the program committee. Extended abstracts deviating significantly from these guidelines risk rejection without consideration of their merits. A submission for the **brief announcement** format should be no longer than three pages. Authors of accepted brief announcements will be asked to submit a full version of their work to be placed on a WWW site.

If requested by the authors in the cover letter, an extended abstract that is not selected for a long presentation will also be considered for the brief announcement format. Such a request will not affect consideration of the paper for a long presentation.