

evo* > evoapplications

evopar²⁰¹²

parallel architectures
and distributed
infrastructures

11-13 april 2012
malaga – spain
www.evostar.org

submission deadline
* 30 november 2011

There is growing interest in running evolutionary computation on Parallel and Distributed Computing Infrastructures. A number of technologies are already available. These include Grid and Cloud Computing, Internet Computing (e.g. seti@home, boinc), General Purpose Computation on Graphics Processing Units (GPGPU), multi-core and many-core architectures and supercomputers. Although they are routinely used for running computing intensive applications, considerable skill is required to get the best from them. The experimenter has to consider scheduling, porting of applications, communication topologies, new parallel models and architectures, cache and memory management optimization, preemptive multitasking and simultaneous multi threading and even energy consumption. Also, the experimenter may need to change their evolutionary algorithm to fully exploit these new tools.

At **evopar 2012** scientists and engineers will gather to share and exchange their experiences, discuss challenges, and report state-of-the-art and in-progress research on all aspects of the application of evolutionary algorithms for improving parallel architectures and distributed computing Infrastructures. **evopar** will assist the two-way flow of ideas between the parallel computing community and the EC community.

areas of interest and contributions

Areas of Interest and Contributions
High quality paper submissions which demonstrate novelty in terms of methodology, application or both, are strongly encouraged. Applications of interest include (but are not limited to):

- * Optimisation of Parallel architectures by means of EAs.
- * Hardware implementation of EAs, including but not limited to Field Programmable Gate Arrays. GP-GPU optimization.

- * Improving Scheduling techniques for P2P and Grid Systems. Improving Scheduling techniques for running distributed EAs.
- * Improving Fault tolerance techniques for distributed systems and Distributed EAs capabilities for coping with failures.
- * Analytical modelling and performance evaluation of Parallel and Distributed Infrastructures when running EAs.
- * Improvement in system performance through optimisation and tuning.
- * Case studies showing the role of Parallel and Distributed Infrastructures in conjunction with Distributed EAs when solving hard real-life problems.

publication details

Accepted papers will appear in the proceedings of **evo***, published in a volume of the Springer Lecture Notes in Computer Science, which will be available at the Conference.

submission details

Submissions must be original and not published elsewhere. The submissions will be peer reviewed by at least three members of the program committee. The authors of accepted papers will have to improve their paper on the basis of the reviewers' comments and will be asked to send a camera ready version of their manuscripts. At least one author of each accepted work has to register for the conference and attend the conference and present the work.

The reviewing process will be double-blind, please omit information about the authors in the submitted paper. Submit your manuscript in [Springer LNCS format](#).

- * submission link:
<http://myreview.csregistry.org/evoapps12/>
- * page limit: 10 pages

programme chairs

* F. Fernandez de Vega
University of Extremadura > Spain

* W. B. Langdon
University College London > UK

evoapplications chair

* Cecilia Di Chio
cdichio@gmail.com

evo* coordinator

* Jennifer Willies
Napier University > United Kingdom
j.willies@napier.ac.uk

local chair

* Carlos Cotta
Universidad de Málaga > Spain
ccottap@lcc.uma.es