Special issue on
Benchmarking of continuous black-box optimization algorithms
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Scope: Quantifying and comparing performance of optimization algorithms is one important aspect of research in search and optimization. Because this task is tedious and difficult to realize, the platform COCO (COmparing Continuous Optimizers) provides most of this tedious task for real-parameter optimization, namely (1) the choice and implementation of well-motivated single-objective noise-free and noisy benchmark functions, (2) a sound experimental setup, (3) the tools to generate data output and post-process the data. The platform were used for two workshops on Black-Box Optimization Benchmarking (BBOB) at the Genetic and Evolutionary Computation Conference (GECCO) in 2009 and 2010

Following the two BBOB workshops, we invite participants and other researchers to submit their original work on benchmarking optimizers for real-parameter black-box optimization for an ECJ special issue. Submissions can be extensions of works submitted at the workshops or new submissions. They should be original research which is not published nor currently under review by other journals or conferences.

Topics of interest include (but are not limited to):

- benchmarking results for new or not-so-new optimization algorithms (stochastic, deterministic, ...) for noise-free problems and / or noisy problems

- comparison of optimization algorithms

- design of benchmarking procedures

Researchers are welcome to use the COCO software platform as well as all data collected during the two workshops. See `http://coco.gforge.inria.fr/`. Further supporting material and a LaTeX-format ECJ style template that includes graphs and tables generated by the COCO tools will be available at

`http://coco.gforge.inria.fr/doku.php?id=ecj-special-issue`

Submission: Authors should submit their manuscripts to the Evolutionary Computation editorial manager at `http://ecj.lri.fr`. When submitting a manuscript, at the same time an email should be sent to Anne Auger (firstname.lastname@inria.fr) with copy to ecj@lri.fr mentioning the special issue, paper title and authors to confirm the submission.