

GECCO'16 Workshop on Algorithms and Data Structures for Evolutionary Computation Chairs' Welcome

It is our great pleasure to welcome you to the 1st Workshop on Algorithms and Data Structures for Evolutionary Computation, associated with GECCO 2016!

In a sense, evolutionary computation is a rather mature field now. One of the signs is that, unlike early years, for optimization in many domains we use algorithms that have many non-trivial and complicated parts. Examples of such algorithms are CMA-ES and NSGA-II. It is no more obvious how to implement such algorithms efficiently, and which algorithms and data structures to use to obtain better performance. If you wish to learn something new, or to bring new ideas to this topic, welcome to our workshop!

This workshop is dedicated to algorithms and data structures, which can be used in implementations of evolutionary algorithms to enhance their efficiency without changing their behavior. We seek to merge the latest advances from classic computer science into evolutionary computation, as well as all the way backwards – to force development of certain new computer science directions motivated by needs of evolutionary computation.

Scopes of interest include, but of course are not limited, to:

- efficient algorithms for processing multi- and many-objective solution sets;
- data structures which support incremental updates and enable efficient steady-state evolutionary algorithms;
- algorithms and data structures for parallel and asynchronous evolutionary computation;
- efficient evolutionary operators and efficient sampling of various distributions;
- algorithms and data structures for enhancing domain-specific evolutionary algorithms.

The call for papers attracted full paper submissions from United States, Europe and China. The program committee reviewed four submitted papers and accepted two of them. We hope you will enjoy them very much!

Putting together this workshop was a team effort. We first thank the authors for their thought provoking papers and algorithms. We are grateful to our truly intercontinental program committee, who worked very hard in reviewing papers and providing feedback for authors: **Youhei Akimoto** (Shinshu University, Japan), **Daniil Chivilikhin** (ITMO University, Russia), **Kalyanmoy Deb** (Michigan State University, USA), **Joshua Knowles** (University of Birmingham, UK), and **Ke Li** (Michigan State University, USA). Finally, we would like to thank ACM SIGEVO and GECCO 2016 organizers, especially **Frank Neumann** (the General Chair), **Gisele Pappa** and **Markus Wagner** (the Workshops Chairs).



Maxim Buzdalov

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Workshop Chair