Visualisation in Genetic and Evolutionary Computation (VizGEC 2012)

Visualisation plays an important role in evolutionary computation, and as such we are pleased to be organising the third GECCO workshop on visualisation in evolutionary and genetic computation (VizGEC 2012).

Following a call for papers, we have three papers on a diverse range of visualisation topics. One, "*Visualisation of Many-objective Populations*", presents techniques for visualising the search population of an evolutionary algorithm, illustrating the relationships between individual solutions. In "*Generating Colored 2-Dimensional Representations of Sleep EEG with the KANTS Clustering Algorithm*", an ant-based clustering system is used to generate art from a 3-dimensional signal derived from EEG records of sleep patterns. The focus of "*Biaxial Box Plots and Ordered Trial Ranks for Visualizing Large Sets of Experimental Results*" is on the evaluation of result sets produced by evolutionary optimisation algorithms. In addition to the presentation of papers, we are also inviting demonstrations of tools that are used by people engaged in evolutionary computation research. We hope that by presenting a range of different tools and techniques we will encourage a discussion on visualisation methods that people find useful, as well as how the current state-of-the-art can be extended, with the development of new techniques and the application of existing methods to new problems, to fulfill researcher's visualisation needs.

We hope that the workshop will appeal to a wide range of GECCO attendees, from those with experience of developing novel visualisation methods, to those who simply use them as a tool to illustrate their work. We also intend that the workshop will provide an attractive opportunity for those with visualisation problems to find opportunities to engage with the visualisation community and identify potential collaborations.

The organisation of VizGEC 2012 has been made possible with invaluable assistance from several people. Firstly, we would like to thank the GECCO 2012 Workshops Chair, Bill Rand, for providing helpful comments and advice throughout the process of organising the workshop. We would also like to thank the Chair of VizGEC 2010 and 2011, Jason Moore, for his help in the early stages of designing the workshop. Thanks is also due to our reviewers, Jacqueline Christmas and Kent McClymont, for their hard work.

We look forward to welcoming you to VizGEC 2012.

General Chairs: David Walker *(University of Exeter, UK)*
Richard Everson *(University of Exeter, UK)*
Jonathan Fieldsend *(University of Exeter, UK)*

Program Committee: Jacqueline Christmas *(University of Exeter, UK)*
Kent McClymont *(University of Exeter, UK)*

David Walker   **Richard Everson**   **Jonathan Fieldsend**
University of Exeter   *University of Exeter*   *University of Exeter*