Workshop on Neutral Evolution in Evolutionary Computation

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1 Introduction

Kimura's Neutral Theory of Evolution is founded on the premise that most mutations at the molecular level in evolution are caused by random genetic drift rather than by natural selection. This contrasts to Darwin's Theory of Evolution, which considers selection acting on advantageous mutations as the driving force of evolution. With a strong Darwinian influence, most Evolutionary Computation (EC) systems adopt a selectionists' point of view to model evolution. It is only until recently when neutrality is considered in EC systems. However, as the implementation varies, the performance results are different from one to the other. Currently, there is no consensus of the advantages/disadvantages of neutrality in EC. The purpose of this workshop is to discuss different views of neutrality and to improve our understanding of evolutionary search process under neutrality.

The Workshop has two parts: paper presentations followed by a panel discussion. This proceedings include three papers presented at the Workshop. I want to thank all program committee members for completing paper review within a very short time window:

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