Energy and time in 1000-dimensional search

Kalin Penev

Southampton Solent University, UK

Abstract. In the modern world of billions connected things and exponentially growing data, search in multidimensional spaces and optimisation of multidimensional tasks becomes a daily need for variety of technologies and scientific fields. However resolving tasks with number of parameters in the range of 1000 and more require time, energy and other resources.This presentation focuses on evaluation and comparison of 1000 dimensional optimisation tasks on two enhanced performance computer systems. Use of energy and time for tasks completion are measured and compared. Experimental results are presented and can be used for further research and evaluation of other methods.