

Genetic Algorithm and Evolutionary Programming: A comparison study

Wei Gao

Wuhan Polytechnic University, Wuhan, Hubei 430023, P. R. China

Email: wgaowh@hotmail.com Tel.: +86-27-83950207

ABSTRACT

Genetic algorithm and evolutionary programming are two generally used evolutionary algorithms. Due to the difference of their origin, there are a lot of differences between their biologic bases, algorithm operation and some other operational details. So, the performances of the two algorithms are different. In this paper, these differences are analyzed comprehensively by theory and revealed by simulation experiments. The results show that the performance of evolutionary programming is better than that of genetic algorithm and the evolutionary programming is more suitable for practical applications.

Keywords: Genetic algorithm, Evolutionary programming, Comparison.