Multi-Dimensional Genetic Algorithm using OpenMP

Zubia Shahid*

University of Sciences, Philadelphia, PA

Imran Khan[†]

genmatixs.com

(Dated: June 27, 2014)

Abstract

This paper represents a detailed description of amulti-dimensional genetic algorithm implemented

in C++11 and the OpenMP library. The use of OpenMP allows for the algorithm to be imple-

mented in an extremely efficient manner. The algorithm also offers a considerable degree of flexi-

bility in allowing the user to experiment with different cross-over operators. Results are presented

for several multi-dimensional functions and in comparison to more common genetic algorithms

available.

Keywords: Genetic Algorithms, Parallel Algorithms, OpenMP

INTRODUCTION

This is the introduction.

CROSSOVER OPERATORS

This is the crossover part.

* zshahid@genmatixs.com; zshahid@us.edu

† ikhan@genmatixs.com

1