

LSIモジュール配置問題における自動配置手法*

久津輪 敏郎・名越 正人**・原嶋 勝美

工学部 電子工学科
(2001年5月10日受理)

An Automatic Placement Method for LSI Modules

by

Toshiro KUTSUWA, Masato NAKOSHI and Katsumi HARASHIMA

Department of Electronic Engineering, Faculty of Engineering

(Manuscript received May 10, 2001)

Abstract

Generally, module placement of the VLSI layout design is one of the combinational optimization problems. The genetic algorithm (GA) which simulates the creature's evolution is an effective technique for the combinational optimization problems. By repeating a selection, crossover and mutation in GA, an optimal or near optimal solution is obtained.

In this paper, we discuss an application of GA to the LSI module placement. By using some ideas to the formation of initial placement and crossover technique in the GA, we have obtained better results than the simulated annealing (SA) and others.

* 第14回エレクトロニクス実装学会学術講演大会 (2000年3月16日、青山学院大学)
および ITC-CSCC 2000 (2000年7月11日、釜山) で口頭発表

** 大阪工業大学大学院電気電子工学専攻 (現在、松下電器産業株式会社)