

Abstract: A Distributed Channel Routing using Mean Field Genetic Algorithm

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Abstract

This paper presents Mean Field Genetic Algorithm (MGA) for the channel routing problem in distributed environments. MGA is a hybrid algorithm of Mean Field Annealing (MFA) and Simulated annealing-like Genetic Algorithm (SGA). The proposed MGA combines the benefit of rapid convergence property of MFA and the effective genetic operations of SGA. The proposed MGA is simulated on a network of personal computers running Linux operating system connected via 100Mbps Ethernet. Our experimental results indicate that the composition of heuristic methods improves the performance over the conventional ones.