1. Introduction

1.1 Principles

1.2 Self-⊛ properties

1.3 Emergence (definition!)

1.4 Research Questions (How we measure emergence)

2. PSO

2.1 The Algo

2.2 Convergence Criteria

3. Searching the Swarm & Meas Emergence

HITS (full form not mentioned in Paper)

PageRank (in Exercise) [find subgraphs and find best page in it]

(start with every page is a good hub & a good Expert) (Hubs & Experts) ↳ Authorities

(good for continous optimatzation)

4. Ants

(good for discrete optimization)

(from PhD paper)

5. Genetic / Evolutionary :

(meta heuristic – good for discrete)

⇒ Evolutionary Cycle (must for exam)

5.1. TSP

5.1.1. Selection Operations
5.1.2 Crossover operators
5.1.3 Mutation

} examples Imp (numerical & Defination)

5.2 Mathematical Analysis of a (1+1) EA for Sorting

It is proof that EA works for known problem
then will also be good for unknown problem with no Algo.

(How to avoid being stuck in local Minima)

↳ that's why → Poisson Distribution.