

Selforganizology

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```
⇒ Begin ⇐
⇒ Objective function  $f(p)$ , city distances array; ⇐
⇒ Initial a population of  $n$  host nests (cities)  $x_i$ ; ⇐
⇒  $i = 1; 2; \dots; n$ ; ⇐
⇒ Cuckoos fly via Levy flight to find an initial route (solution). ⇐
⇒ Mend initial solutions and saved in the bulletin board. ⇐
⇒ Evaluate the route length (fitness) of solutions  $F_i$ ; ⇐
⇒ (HTML translation failed) ⇐
⇒ Cuckoos start from their nest to search new nests; ⇐
⇒ (HTML translation failed) ⇐
⇒ Replace old nest by new one; ⇐
⇒ Reverse the segment between old nest and new one; ⇐
⇒ Refresh bulletin board. ⇐
⇒ end if ⇐
⇒ Host birds abandon  $p_a \in (0;1)$  nests, and search  $p_a$  ⇐
⇒ new nests; ⇐
⇒ Refresh the bulletin board and keeping the best solutions ⇐
⇒ (and nests). ⇐
⇒ Rank the solutions, and find the current best route (solution). ⇐
⇒  $t = t + 1$ ; ⇐
⇒ end while ⇐
⇒ Post process results and visualization. ⇐
⇒ end ⇐
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