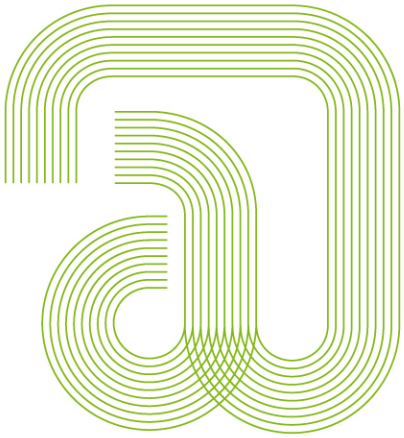
Universidade Vigo

Evolutionary Computation – Lab-Session 7



Escola Superior de Enxeñaría Informática
Edificio Politécnico
Campus universitario
32004 Ourense

http://esei.uvigo.es
mailto:formella@uvigo.es

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Remind we have fixed the due dates for the second homework as annouced already:

- **March 18th** for the particle swarm optimization for real-valued functions (Schaffer and Rosenbrock) and the TSP problem.

1. Seventh Week

Objectives: Finish the second deliverable.

1. Implement and run (using the Guofei-package) the minimization of the traveling salesperson problem. You can use the examples given in the package as baseline. Experiment with the settings of the free parameters and argue about your findings.
2. Take into account that the parameters—in order to converge—should fulfill the following conditions:

   $1 > \xi > \frac{1}{2}(\varphi_1 + \varphi_2) - 1 \geq 0$

   For other values, the algorithm may converge, and does it often but there is no guarantee. Hence we should set: $\varphi_1 + \varphi_2 < 4$.
3. Again calculate simple statistics (such as average, mean, and standard deviation) regarding the best values found by your Monte Carlo runs.

Use a python notebook to implement, execute, and document your work.