## COMPARATIVE STUDY
## Local Search, Simulated Annealing and Taboo Search

Analysis of the behaviour of Local Search, Simulated Annealing and Taboo Search for the N-queens problem:

1. Use N= 10 and 30
2. Repeat each strategy for each N, 1000 times with different random initial states.
3. Set the random seed in order to have the same initial conditions for each repetition and each search procedure.
4. Stopping criteria: to reach the global optimum (in this problem it is known), and by default a maximum number of iterations, reach the minimum T in Annealing, etc.

Collect the following data for each strategy:
- Time to get the solution or finish the execution (use some of these matlab functions: tic, toc, clock, etime)
- Number of times that the global optimum is achieved and number of iterations to get it.

|  | N=10 | | | N=30 | | |
|---|---|---|---|---|---|---|
|  | Local | Annealing | Tabu | Local | Annealing | Tabu |
| Nº times |  |  |  |  |  |  |
| Time (Mean) |  |  |  |  |  |  |
| Iterations (Mean) |  |  |  |  |  |  |
| Other comments |  |  |  |  |  |  |