

### Check list for the OR2 thesis (2022-2023)

| Check                    | Topic                                                                 | Points * |
|--------------------------|-----------------------------------------------------------------------|----------|
| <input type="checkbox"/> | Setting up the C project with TSPLIB parser and solution check & plot | ----     |
| <input type="checkbox"/> | Greedy heuristic with GRASP                                           | ----     |
| <input type="checkbox"/> | Extra-mileage heuristic                                               | 1pt      |
| <input type="checkbox"/> | 2-OPT refining heuristic                                              | ----     |
| <input type="checkbox"/> | Metaheuristics: Tabu Search                                           | ----     |
| <input type="checkbox"/> | Metaheuristics: VNS                                                   | ----     |
| <input type="checkbox"/> | Simulated Annealing                                                   | 1pt      |
| <input type="checkbox"/> | Genetic Algorithm                                                     | 1pt      |
| <input type="checkbox"/> | Basic TSP model in CPLEX (without SECs)                               | ----     |
| <input type="checkbox"/> | Benders' "loop" method with SEC separation for integer sol.s          | ----     |
| <input type="checkbox"/> | Patching heuristic                                                    | 1pt      |
| <input type="checkbox"/> | Branch-and-Cut implementation in CPLEX through callbacks              | ----     |
| <input type="checkbox"/> | Posting heuristic sol.s and adding user cuts for fractional sol.s     | 1pt      |
| <input type="checkbox"/> | Matheuristics: hard fixing                                            | ----     |
| <input type="checkbox"/> | Matheuristics: local branching                                        | ----     |
| <input type="checkbox"/> | Extensive use of performance profile plots for algorithm comparison   | 1pt      |
| <input type="checkbox"/> | Writing style                                                         | 1pt      |

\* Max. score is 31 pt.s

---- means mandatory

