## OPTGAME\_DE Version 1.0 03/2018

## General Notes

This source code is written in Matlab (MATLAB R2012a) for research purposes only.

In the following all names of variables or functions from the code are highlighted in italic. The functions are denoted with an ".m" ending.

Comments and suggestions on how to improve the code should be addressed to dmitri.blueschke@aau.at or ivan.savin@kit.edu.

## How to run

- Open the *main\_optgame\_de.m* which is the main file of the code.
- Choose an existing example/scenario (if you want to create a new one go to step "create a new example") by adjusting the *fname* and/or *scenario* parameter
- Adjust main parameters of your experiment:
  - Ssolver which system solver should be used
  - Jkind, beta parameters for an asymmetric objective function
  - $ineq\_constr,\ calculateJ\_ineq.m$  parameters for scenarios with inequality constraints
  - *Restarts* number of parallel restarts for a heuristic solution
  - *calibrated\_input.m* specification of the initial population

## Create a new example

mumod1 is set as a default example. It is easier to take the templates from this example and to adjust the following files/functions:

- *mumod1.m* consists the system of equations which describes the dynamics of the considered system. This function is called through the according choice of the *fname* parameter in the *main\_optgame\_de.m*.
- *mumod1.mat* consists the input of all problem specific variables like number of players, targets, weights and so on. This data is called through the according choice of the *fname* and/or *scenario* parameter in the *main\_optgame\_de.m*.
- *fsolution.m* here an entry of your own example should be added to the system.