

EXPERIMENTS

Paper: Benítez-Fernández, A., Ruiz, F. (2019). A Meta-Goal Programming Approach to Cardinal Preferences Aggregation in Multicriteria Problems.

The Excel files of this folder contain the data of the experiments reported in the above-mentioned paper. The file Exp1.xlsx contains the experiments with 5 indicators and 4 experts, while the file Exp2.xlsx contains the experiments with 10 indicators and 6 experts. Each of them is formed by the following sheets:

- *General_Data* contains the dimension data of the experiments: number of criteria, number of experts and number of experiments.
- *Random_weights* contains the weights that have been randomly generated by Matlab, for each of the 100 instances.
- *Arithmetic_Mean* contains the data relative to the group weights derived by the arithmetic mean, as well as those obtained by the Meta Goal Programming approach, based on them. We can see the individual deviations, the aggregate deviations per criterion and per expert, and the values of the 4 achievement functions in both cases, for the 100 instances.
- *Geometric_Mean* contains the same information as the previous sheet, for the case of the geometric mean.
- *Extended_GP* contains the same information as the two previous sheets, for the case of the extended goal programming approach.
- *Counts* contains the percentages of times when the Meta Goal Programming scheme gets better, equal or worse results than the others, and the number of achievement functions that are improved for each one of the 100 instances.