APPENDIX

A EXTENDED EXPERIMENTS

A.1 Single-Case - ECDFs

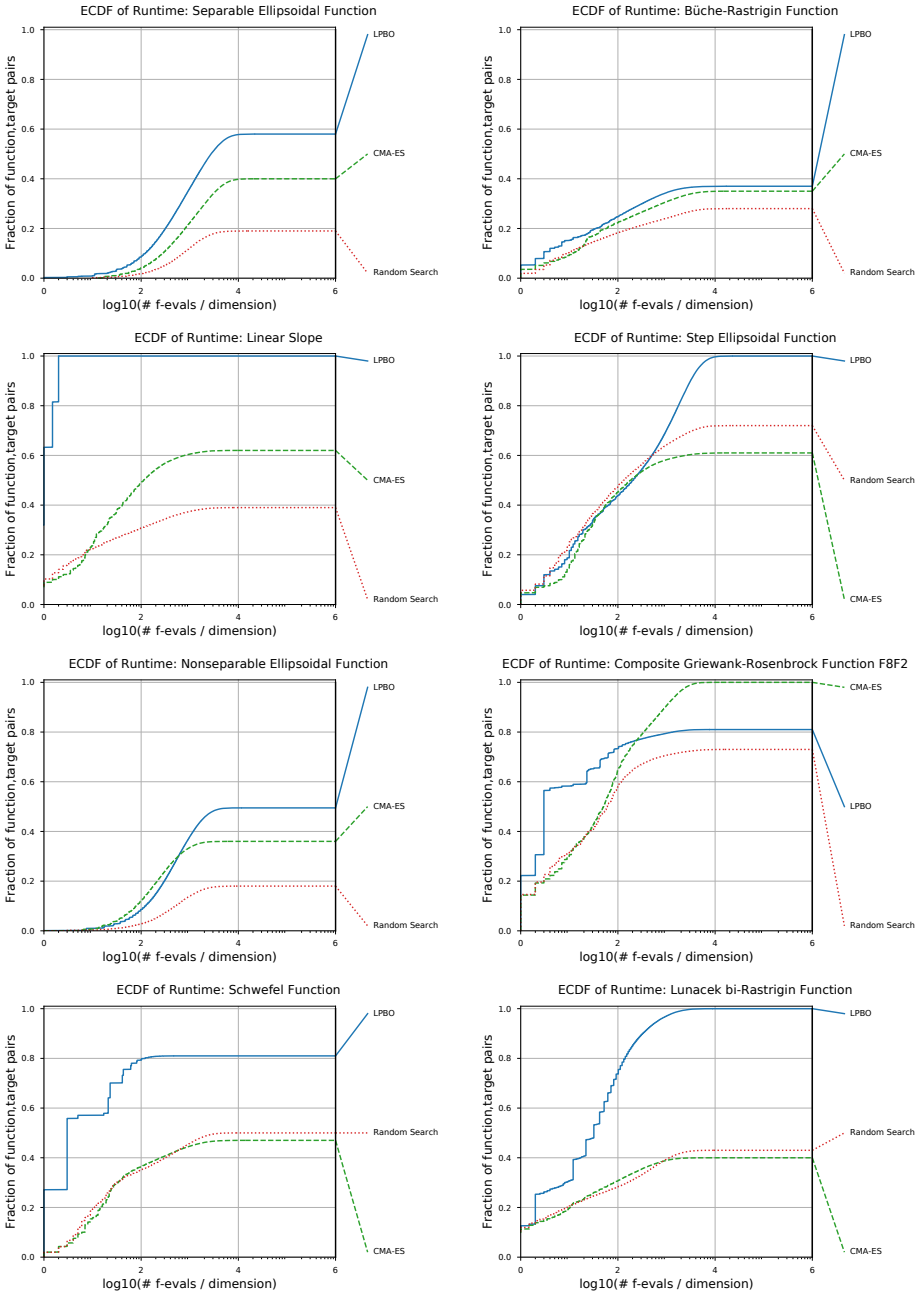

Figure 1: ECDFs when meta-training multiple instances with (left to right, top to bottom) the *Separable Ellipsoidal*, *Büche-Rastringin*, *Linear slope*, *Step Ellipsoïdal*, the *Non-Separable Ellipsoidal*, *Composite Griewank-Rosenbrock*, *Schwefel* and *Lunacek bi-Rastringin* functions in 2D.

A.2 Single-Case - Metalosses

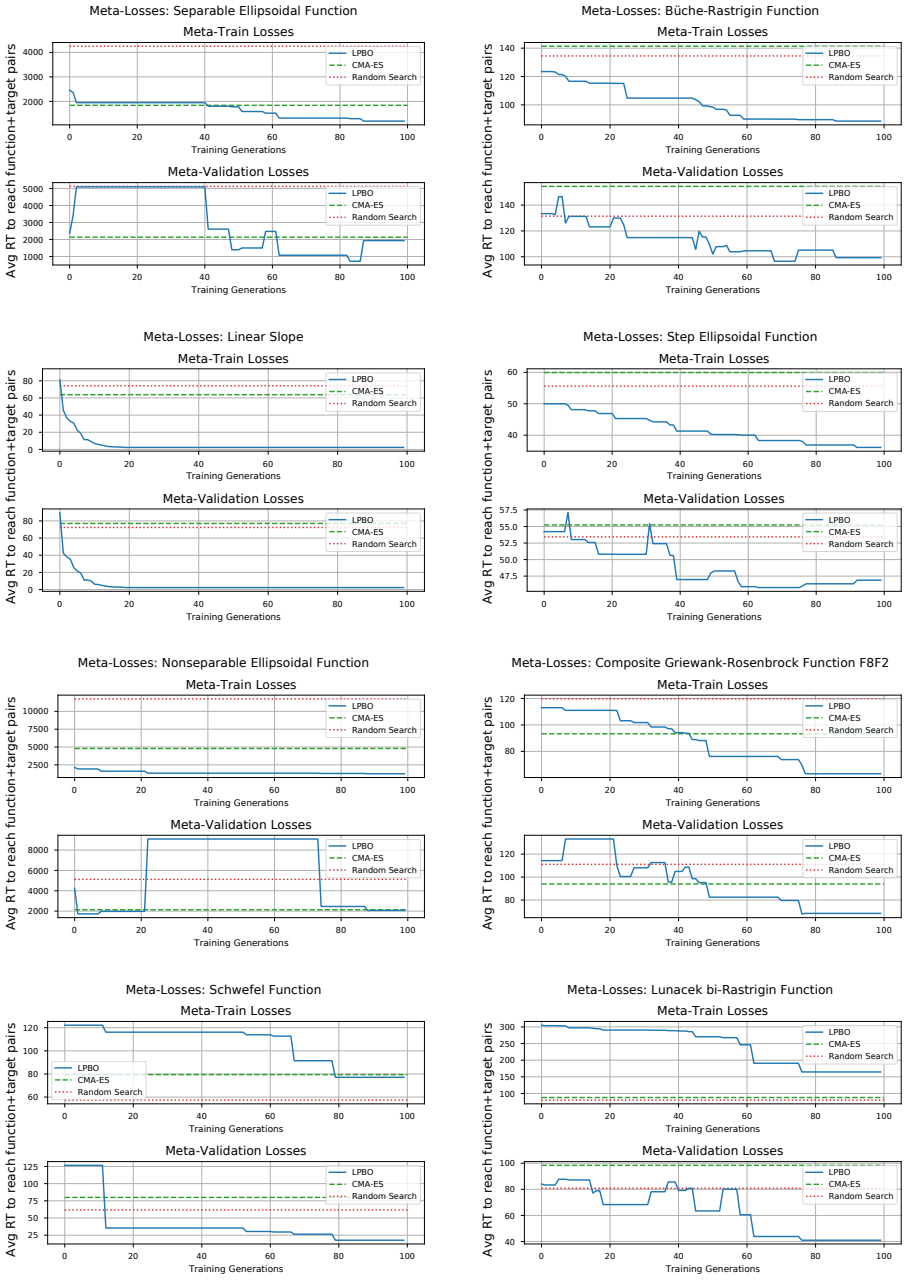

Figure 2: Metalosses when meta-training multiple instances with (left to right, top to bottom) the *Separable Ellipsoidal*, *Büche-Rastringin*, *Linear slope*, *Step Ellipsoïdal*, the *Non-Separable Ellipsoidal*, *Composite Griewank-Rosenbrock*, *Schwefel* and *Lunacek bi-Rastringin* functions in 2D.

A.3 Group-Case - ECDFs

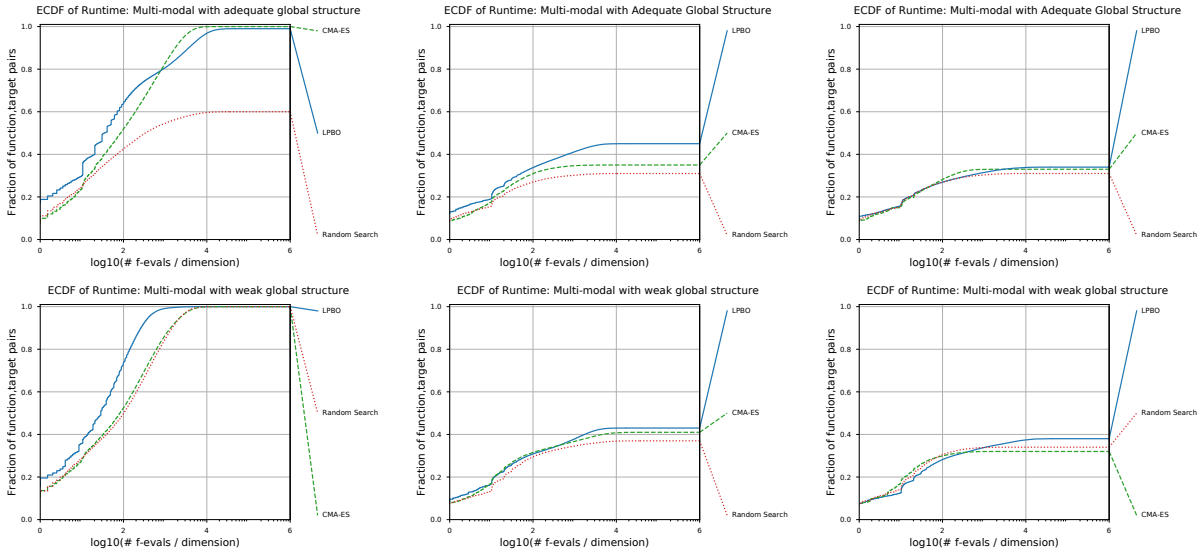

Figure 3: ECDFs when meta-training multiple functions with the groups 1 (top) and 2 (bottom) of the LPBO, CMA-ES and Random Search in 2D, 5D and 10D (left to right).

A.4 Group-Case - Metalosses

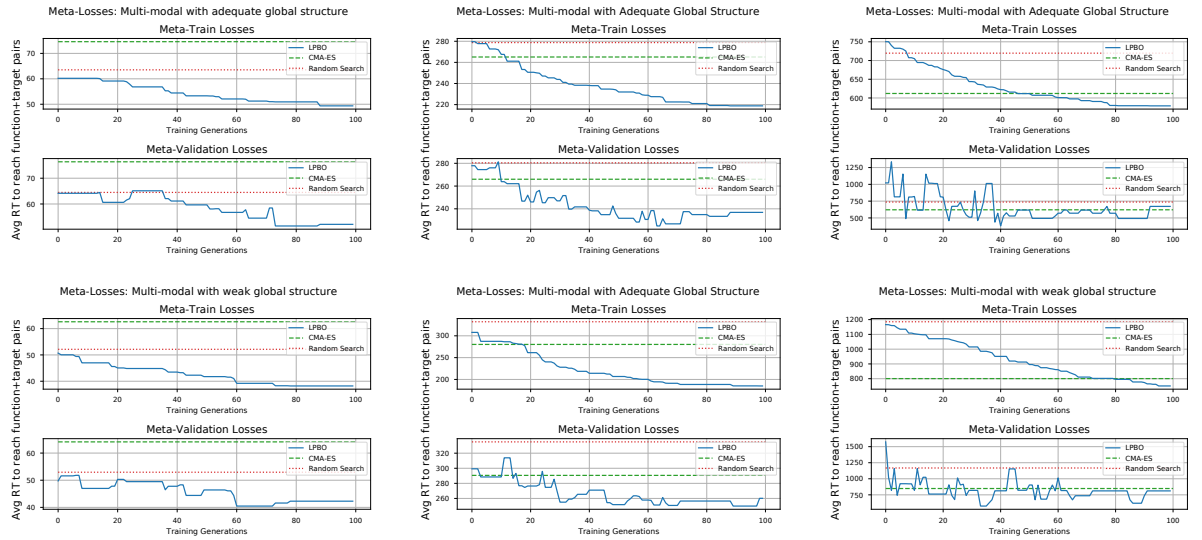

Figure 4: Metalosses when meta-training multiple functions the groups 1 (top) and 2 (bottom) of the LPBO, CMA-ES and Random Search in 2D, 5D and 10D (left to right).

A.5 Hyperparameter Optimization - ECDFs and Metalosses

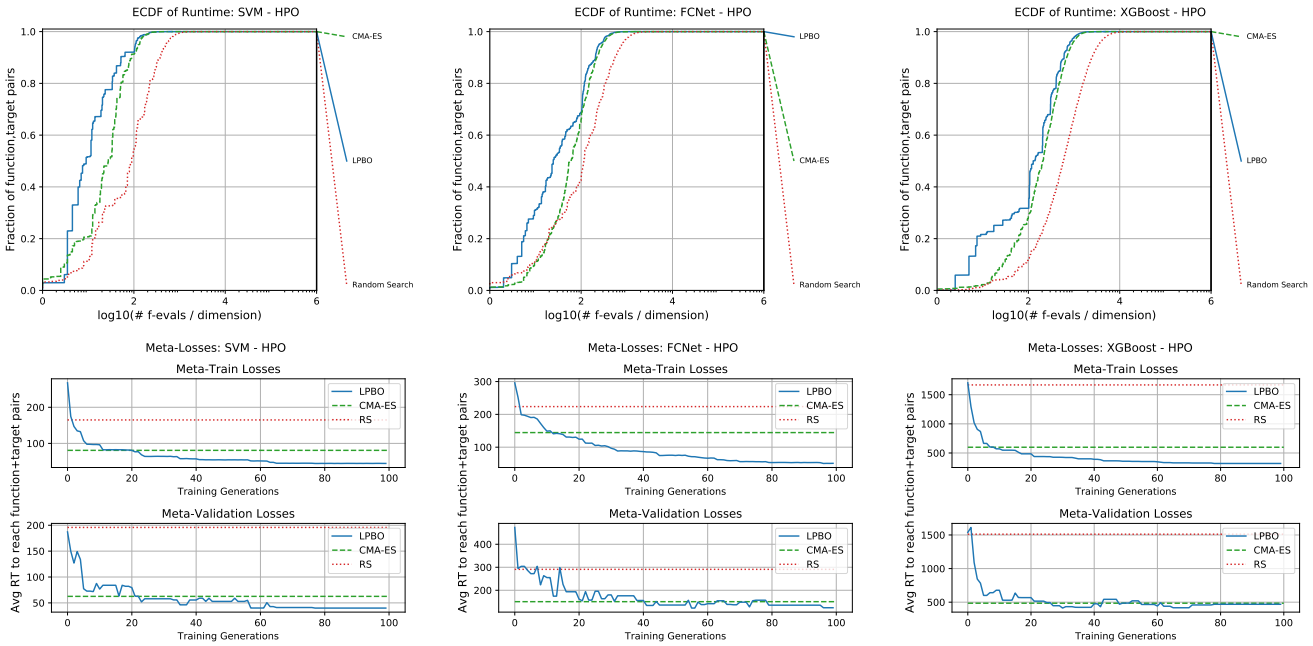

Figure 5: Results in meta-training over HPO tasks. ECDFs (top) and meta-losses (bottom) for hyperparameter search of SVM (6D), a fully connected neural network (FC-NET, 6D) and XGBoost algorithm (8D).