

STA378 Final Report

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1 Variables Descriptions

Data Table Columns

Column	Type	Description
status	Symbol	first_order : solver successfully reached a first-order stationary point; max_time : solver couldn't solve the problem within the time limit; unbounded : the minimum of the objective function goes to $-\infty$.
name	String	Identifier for the optimization problem.
solver	String	Name of the solver/algorithm applied.
mem	Int	Hyperparameter of the solver.
nvar	Int	Number of decision variables in the problem.
time	Float64	Total runtime in seconds (s).
memory	Float64	Total memory in megabytes (MB).
num_iter	Int	Total number of iterations performed.
nvmops	Int	Number of vector-matrix products.
neval_obj	Int	Number of objective function evaluations.
init_eval_obj_time	Float64	Time (seconds) for the initial objective evaluation.
neval_grad	Int	Number of gradient evaluations.
init_eval_grad_time	Float64	Time (seconds) for the initial gradient evaluation.
is_init_run	Bool	Indicates whether this is the initial run.

Table 1: Description of columns in the solver benchmark data table.