

| Problem              | N_var | N_con | N_obj | Type     | Special features   |
|----------------------|-------|-------|-------|----------|--|
| avion2               | 49    | 15    | 1     | NLP      | nonlinear objective only   |
| bonminEx1            | 4     | 3     | 1     | MINLP    | 1 convex constraint  |
| bonminEx1_Nonlinear  | 4     | 3     | 1     | MINLP    | Reformulation of bonminEx1 with nonlinear expressions for linear constraints |
| callBackTest         | 8     | 6     | 1     | NLP      |  |
| callBackTestRowMajor | 8     | 6     | 1     | NLP      | Reformulation of callBackTest: linear part is given in row major form        |
| CppADTestLag         | 4     | 2     | 1     | NLP      |  |
| eastborne            | 2     | 3     | 1     | IP       |  |
| finplan1             | 8     | 4     | 1     | StochNLP |  |
| gamstrnsport         | 6     | 5     | 1     | LP       |  |
| genAssign            | 8     | 6     | 1     | 0-1 IP   |  |
| HS071_feas           | 4     | 2     | 0     | NLP      | Feasibility problem only   |
| HS071_NLP            | 4     | 2     | 1     | NLP      |  |
| HS071_NLPMod         | 4     | 3     | 1     | NLP      |  |
| IP_infeasible        | 2     | 2     | 1     | IP       | IP is infeasible, but LP relaxation is not                                   |
| IP_noconstraint      | 2     | 0     | 1     | IP       | Box-type constraints only (bounds on variables)                              |
| IP_unbounded         | 2     | 1     | 1     | IP       | unbounded objective  |
| lindoapiaddins       | 2     | 6     | 1     | MINLP    |  |
| LP_infeasible        | 2     | 1     | 1     | LP       | no feasible solution   |
| LP_nobasis           | 2     | 1     | 1     | LP       | optimal solution, but no optimal basis                                       |
| LP_noconstraint      | 2     | 0     | 1     | LP       | Box-type constraints only (bounds on variables)                              |
| LP_unbounded         | 2     | 1     | 1     | LP       | unbounded solution   |
| markowitz            | 3     | 5     | 1     | NLP      |  |
| markowitzMatlab      | 3     | 2     | 1     | NLP      |  |
| muer                 | 11    | 91    | 1     | MINLP    |  |
| nanTest              | 2     | 0     | 1     | NLP      | trivially undefined objective  |
| NaNTest2             | 2     | 1     | 1     | NLP      | another problem where either the objective or the constraints are undefined  |
| nonconvex            | 2     | 1     | 1     | NLP      | nonconvex problem  |
| nonconvex2           | 1     | 1     | 1     | INLP     | nonconvex problem  |
| p0033                | 33    | 16    | 1     | 0-1 IP   |  |
| p0033MULT            | 33    | 16    | 1     | 0-1 IP   | reformulation of p0033 using "mult" and "incr" attributes                    |
| p0201                | 201   | 133   | 1     | 0-1 IP   |  |
| parincInteger        | 2     | 4     | 1     | IP       |  |
| parincLinear         | 2     | 4     | 1     | LP       | continuous relaxation of parincInteger                                       |

|                     |      |     |   |      |  |
|---------------------|------|-----|---|------|--|
| parincLinearByRow   | 2    | 4   | 1 | LP   | reformulation of parincLinear with row-wise A-matrix |
| parincLinearEmpty   | 0    | 0   | 1 | LP   | Constant objective value (1)                         |
| parincLinearZeroVar | 0    | 4   | 1 | LP   | No variables   |
| parincQuadratic     | 2    | 4   | 1 | QP   | quadratic objective                                  |
| reallyEmpty         | 0    | 0   | 0 | ?    | No data  |
| rosenbrockmod       | 2    | 2   | 1 | NLP  |  |
| rosenbrockorig      | 2    | 0   | 1 | NLP  | Rosenbrock's original "curved valley" - pseudoconvex |
| rosenbrockorigInt   | 2    | 0   | 1 | INLP | Rosenbrock's function restricted to integer x        |
| smallIPBook         | 2    | 3   | 1 | IP   |  |
| spl1                | 18   | 20  | 1 | MIP  |  |
| spl2                | 12   | 12  | 1 | MIP  |  |
| test24locR1         | 577  | 98  | 1 | MIP  |  |
| test48locR1         | 2305 | 194 | 1 | MIP  |  |
| testOperators       | 2    | 2   | 1 | NLP  |  |
| volumeTest          | 2    | 1   | 2 | LP   |  |
| wayneQuadratic      | 8    | 7   | 1 | QP   | quadratic objective                                  |