

Contents

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import os import numpy as np import sys  
sys.path.insert(0, './code')  
from Timer import Timer from Aux import execute  
if len(sys.argv) < 2: print("Error: Needs an instance as argument")  
sys.exit()  
instance = sys.argv[1] ninstance = instance.replace('.dat', '').split('/')[1]  
execution_type = "e 50000" execution_type2 = "i 24" sols_dir = "./results/p2/" +  
ninstance num_executions = 30 server = len(sys.argv) > 2 code = "./code/main_ma.py"  
#----- SA -----#  
print("Executing simulating annealing. . .") timer = Timer() timer.start()  
TF = [0.001, -0.001] for t in TF: sol_dirsuffix = "SA/t="+str(t) suffix =  
sol_dirsuffix.replace("/", "_") sol_dir = os.path.join(sols_dir, sol_dirsuffix) parameters  
= " ".join(["python", code, instance, "sa", execution_type, "-ft", str(t)]) exe-  
cute(parameters, sol_dir, suffix, num_executions, server) if not server: print("Elapsed  
time in seconds:", timer.getTime())  
#----- ILS -----#  
MP = [-1, 1] print("Executing ILS. . .") timer = Timer() timer.start() for  
mp in MP: sol_dirsuffix = "ILS/mp="+str(mp) suffix = sol_dirsuffix.replace("/",  
"_") sol_dir = os.path.join(sols_dir, sol_dirsuffix) parameters = " ".join(["python",  
code, instance, "ils", execution_type2, "-lsme 50000 -mp", str(mp)]) execute(parameters,  
sol_dir, suffix, num_executions, server) if not server: print("Elapsed time in sec-  
onds:", timer.getTime())  
#----- ILS-SA -----#  
print("Executing ILS-SA. . .") timer = Timer() timer.start() sol_dirsuffix  
= "ILS-SA" suffix = sol_dirsuffix.replace("/", "_") sol_dir = os.path.join(sols_dir,  
sol_dirsuffix) parameters = " ".join(["python", code, instance, "ils", execution_type2,  
"-ls sa -ft -0.001 -lsme 50000"]) execute(parameters, sol_dir, suffix, num_executions,  
server) if not server: print("Elapsed time in seconds:", timer.getTime())  
#----- GRASP -----#  
greedy = ['ind', 'pairs']  
print("Executing GRASP. . .") timer = Timer() timer.start() for g in  
greedy: sol_dirsuffix = "GRASP/"+"g"2optb" suffix = sol_dirsuffix.replace("", "_")  
sol_dir = os.path.join(sols_dir, sol_dirsuffix) parameters = " ".join(["python",  
code, instance, "grasp", execution_type2, "-gr", g, "-ls 2optb -gra 0.3 -lsme  
50000"]) execute(parameters, sol_dir, suffix, num_executions, server) if not server:  
print("Elapsed time in seconds:", timer.getTime())
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    print("Executing Randomized Greedy...") timer = Timer() timer.start()
    for g in greedy: sol_dirsuffix = "GRASP/" + g + "none" suffix = sol_dirsuffix.replace(" ",
    "_") sol_dir = os.path.join(sols_dir, sol_dirsuffix) parameters = " ".join(["python",
    code, instance, "grasp i 0", "-gr", g, "-ls none -gra 0.3"]) execute(parameters,
    sol_dir, suffix, num_executions, server) if not server: print("Elapsed time in sec-
    onds:", timer.getTime())

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