Parameter Configuration in Computational Tests

	Α	В	С	D
Parameter	sBaB	sBaB	sBaB	sBaB
	(Algorithm 2)	(Algorithm	(Algorithm 2)	(Algorithm 2)
	incorporating	2) with slack	incorporating	incorporating
	Algorithm 1	variable	Algorithm 1	Algorithm 1
		approach		
Tolerance	0.1	0.1	0.1	0.1
[tol_init]				
Max iterations	10000	10000	10000	10000
[maxiter_init]				
Max time in sec.	7200	7200	7200	7200
[maxtime_init]				
Use OBBT	True	True	False	False
[use_obbt]				
Use FBBT	False	False	False	False
[use_fbbt]				
Debugging	False	False	False	False
[debug_init]				
Artificially enlarge initial boxes	True	True	True	False
[enlarge_box_constraints_init]				
Restrict to exhaustive seq. of	False	False	True	True
boxes around optimal point				
[tunnel_approach_init]				
Strict removal of boxes based	True	True	True	False
on lines 3-4 in Algorithm 1				
[strict_removal_init]				
Slack variable approach	False	True	False	False
[var_lifting_init]				

	1	2	3	4	5
Parameter	MIR	MIR_H	KRAW	NARR_S	NARR_I
Matrix inversion step	True	False	-	-	-
in Miranda's method					
[inversion_phase_init]					
Construct narrow box	-	-	False	True	True
around local solution					
[narrow_box_init]					
Size of narrow box	-	-	-	1e-5	1e-5
[narrow_box_tol_init]					
Used local solver	-	-	-	slsqp	ipopt
[local_solver]					

Some results may slightly deviate on a different machine.

Slightly different results can be achieved if you replace usage of interval arithmetic with centered forms in the code, or vice versa.

Sometimes, in the results, there are two different versions for a test problem. In such a case, a second test was made with a slightly altering model formulation or using a differing initial box.