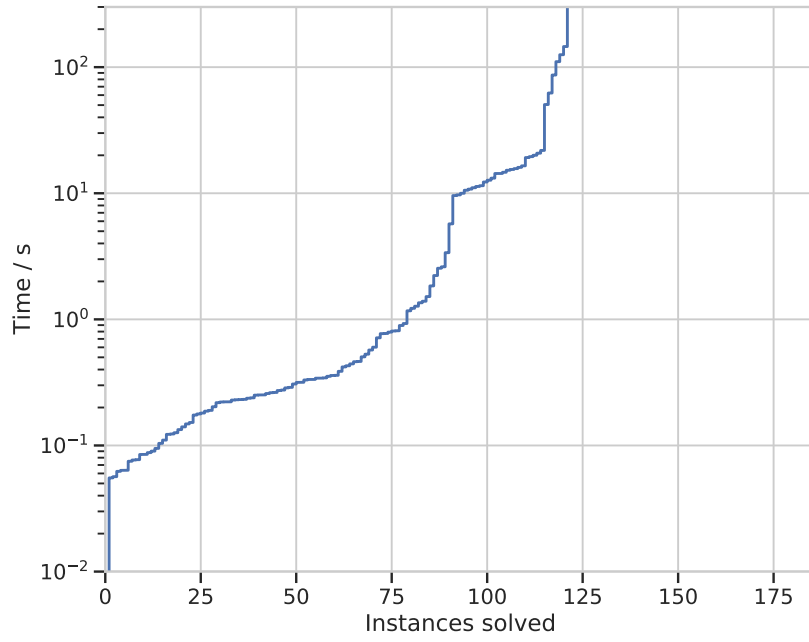# 1 PWL

1.1 ACASXU-all

1.1.1 MIPVerify

Figure 1: Cactus plot for MIPVerify on ACASXU-all, with timeout at 300 seconds.

We present a summary of results in Table 1.

Table 1: Summary of results for MIPVerify on ACASXU-all. Timeouts were set at 300 secs.

Result	Count
SAFE	86
TIMEOUT	66
UNSAFE	34

Prop	Net	Result	Runtime / s
1	1-1	—	—
1	1-2	—	—
1	1-3	—	—
1	1-4	—	—
1	1-5	—	—
1	1-6	—	—
1	1-7	—	—
1	1-8	SAFE	62.35
1	1-9	SAFE	86.62
1	2-1	—	—
1	2-2	—	—
1	2-3	—	—
1	2-4	—	—
1	2-5	—	—
1	2-6	—	—
1	2-7	—	—
1	2-8	—	—
1	2-9	—	—
1	3-1	—	—
1	3-2	—	—
1	3-3	—	—
1	3-4	—	—
1	3-5	—	—
1	3-6	—	—
1	3-7	—	—
1	3-8	—	—
1	3-9	—	—
1	4-1	—	—
1	4-2	—	—
1	4-3	—	—
1	4-4	—	—
1	4-5	—	—
1	4-6	—	—
1	4-7	—	—
1	4-8	—	—
1	4-9	—	—
1	5-1	—	—
1	5-2	—	—
1	5-3	—	—
1	5-4	—	—
1	5-5	—	—
1	5-6	—	—
1	5-7	—	—
1	5-8	—	—

Prop	Net	Result	Runtime / s
1	5-9	—	—
2	1-1	—	—
2	1-2	—	—
2	1-3	—	—
2	1-4	—	—
2	1-5	—	—
2	1-6	UNSAFE	125.49
2	1-7	—	—
2	1-8	—	—
2	1-9	—	—
2	2-1	UNSAFE	21.86
2	2-2	UNSAFE	145.67
2	2-3	UNSAFE	10.00
2	2-4	UNSAFE	20.02
2	2-5	UNSAFE	11.32
2	2-6	UNSAFE	12.28
2	2-7	UNSAFE	19.51
2	2-8	UNSAFE	15.44
2	2-9	—	—
2	3-1	UNSAFE	9.59
2	3-2	—	—
2	3-3	—	—
2	3-4	UNSAFE	9.71
2	3-5	UNSAFE	12.69
2	3-6	—	—
2	3-7	—	—
2	3-8	UNSAFE	110.51
2	3-9	UNSAFE	14.67
2	4-1	—	—
2	4-2	—	—
2	4-3	UNSAFE	11.07
2	4-4	—	—
2	4-5	UNSAFE	14.34
2	4-6	UNSAFE	14.35
2	4-7	UNSAFE	11.48
2	4-8	UNSAFE	15.68
2	4-9	UNSAFE	50.52
2	5-1	UNSAFE	13.18
2	5-2	UNSAFE	10.78
2	5-3	—	—
2	5-4	UNSAFE	10.57
2	5-5	UNSAFE	16.04
2	5-6	UNSAFE	15.22
2	5-7	UNSAFE	16.50

Prop	Net	Result	Runtime / s
2	5-8	UNSAFE	20.79
2	5-9	UNSAFE	19.19
3	1-1	SAFE	3.38
3	1-2	SAFE	1.22
3	1-3	SAFE	5.72
3	1-4	SAFE	0.32
3	1-5	SAFE	0.22
3	1-6	SAFE	0.12
3	1-7	UNSAFE	0.09
3	1-8	UNSAFE	0.08
3	1-9	UNSAFE	0.06
3	2-1	SAFE	0.89
3	2-2	SAFE	0.81
3	2-3	SAFE	2.23
3	2-4	SAFE	0.08
3	2-5	SAFE	0.24
3	2-6	SAFE	0.13
3	2-7	SAFE	0.18
3	2-8	SAFE	0.09
3	2-9	SAFE	0.06
3	3-1	SAFE	0.22
3	3-2	SAFE	2.54
3	3-3	SAFE	0.50
3	3-4	SAFE	1.17
3	3-5	SAFE	0.23
3	3-6	SAFE	0.77
3	3-7	SAFE	0.06
3	3-8	SAFE	0.22
3	3-9	SAFE	0.12
3	4-1	SAFE	0.57
3	4-2	SAFE	1.27
3	4-3	SAFE	1.35
3	4-4	SAFE	0.31
3	4-5	SAFE	0.10
3	4-6	SAFE	0.79
3	4-7	SAFE	0.15
3	4-8	SAFE	0.19
3	4-9	SAFE	0.29
3	5-1	SAFE	1.39
3	5-2	SAFE	0.26
3	5-3	SAFE	0.44
3	5-4	SAFE	0.22
3	5-5	SAFE	0.34
3	5-6	SAFE	0.27

Prop	Net	Result	Runtime / s
3	5-7	SAFE	0.06
3	5-8	SAFE	0.20
3	5-9	SAFE	0.09
4	1-1	SAFE	0.81
4	1-2	SAFE	0.71
4	1-3	SAFE	1.52
4	1-4	SAFE	0.26
4	1-5	SAFE	0.33
4	1-6	SAFE	0.25
4	1-7	UNSAFE	0.07
4	1-8	UNSAFE	0.09
4	1-9	UNSAFE	0.06
4	2-1	SAFE	0.77
4	2-2	SAFE	0.93
4	2-3	SAFE	0.19
4	2-4	SAFE	0.25
4	2-5	SAFE	0.32
4	2-6	SAFE	0.35
4	2-7	SAFE	0.18
4	2-8	SAFE	1.84
4	2-9	SAFE	0.08
4	3-1	SAFE	0.36
4	3-2	SAFE	0.24
4	3-3	SAFE	0.14
4	3-4	SAFE	0.23
4	3-5	SAFE	0.53
4	3-6	SAFE	0.42
4	3-7	SAFE	0.15
4	3-8	SAFE	0.46
4	3-9	SAFE	0.36
4	4-1	SAFE	0.11
4	4-2	SAFE	0.46
4	4-3	SAFE	0.43
4	4-4	SAFE	2.61
4	4-5	SAFE	0.29
4	4-6	SAFE	0.34
4	4-7	SAFE	0.17
4	4-8	SAFE	0.33
4	4-9	SAFE	0.39
4	5-1	SAFE	0.34
4	5-2	SAFE	0.25
4	5-3	SAFE	0.60
4	5-4	SAFE	0.26
4	5-5	SAFE	0.28

Prop	Net	Result	Runtime / s
4	5-6	SAFE	0.23
4	5-7	SAFE	0.13
4	5-8	SAFE	0.33
4	5-9	SAFE	0.23
5	1-1	—	—
6	1-1	—	—
7	1-9	—	—
8	2-9	—	—
9	3-3	—	—
10	4-5	—	—