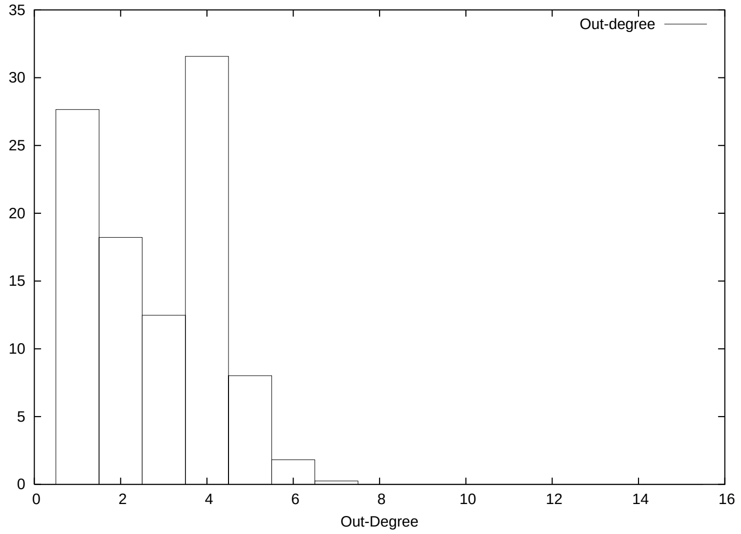
Graph: spin/cambridge11.red

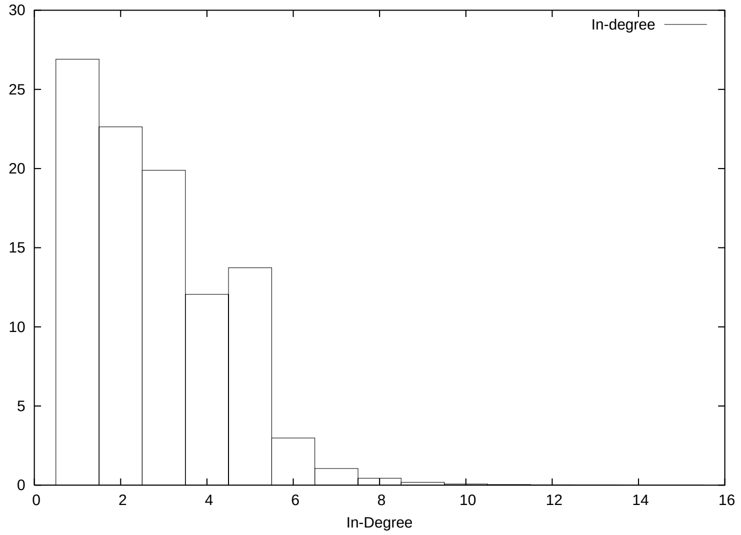
General Info

Example title	Cambridge Ring Protocol
Parameter	11
Reduction	POR
Modification	
States	482,309
Edges	1,353058
Average degree	2.8

Out-Degrees distribution:



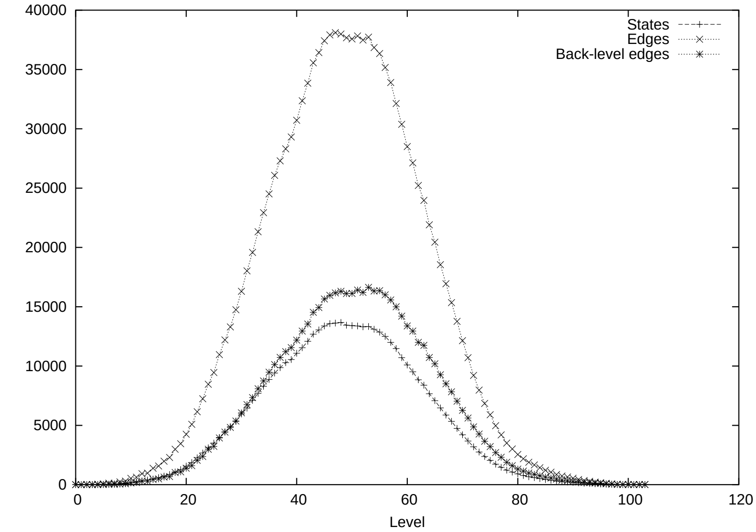
In-Degrees distribution:



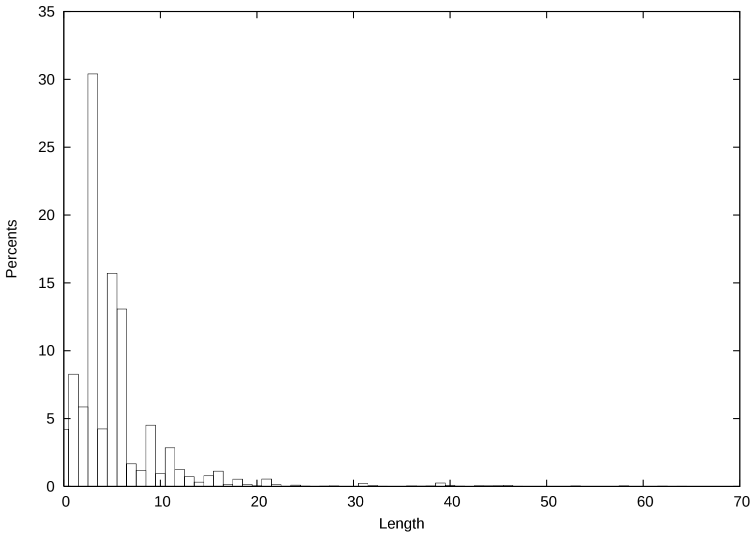
BFS Info

BFS height	103
BFS width	13,673 (2.8%)
Back level edges	583,466 (43.1%)

BFS level info:



Back level edges lengths:



SCC Info

SCC components	48,859
SCC quetient height	48
SCC quetient nontrivial height	10
Number of terminal components	1
The largest component is	initial

Statistics according to **sizes**:

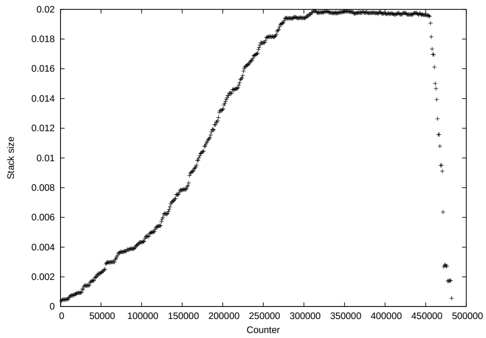
Size	Number of components	Number of states here
426,849	1	88.5%
153	1	0%
89	1	0%
87	3	0%
62	2	0%
60	15	0.1%
42	26	0.2%
41	12	0.1%
28	69	0.4%
27	27	0.1%
9	19	0%
7	139	0.2%
1	48,544	10%

SCC component graph (part):

DFS Info

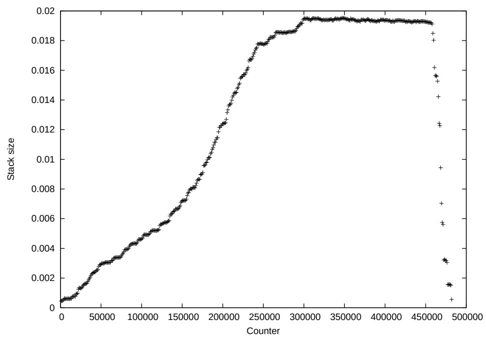
Run 0

front-edges : back-edges : cross-edges = 482,308 : 23,957 : 846,793 = 35.6%:1.7%:62.5%
Max. stack size: 9,620 (1.9%)
Shortest cycle detected: 4
Most often detected lengths of cycles: 4 (4708), 8 (200), 12 (115), 10 (86), 34 (76)
Stack graph:



Run 1

front-edges : back-edges : cross-edges = 482,308 : 23,473 : 847,277 = 35.6%:1.7%:62.6%
Max. stack size: 9,453 (1.9%)
Shortest cycle detected: 4
Most often detected lengths of cycles: 4 (4748), 8 (201), 10 (136), 12 (79), 16 (79)
Stack graph:



Local Structure

Short cycles(up to 6)

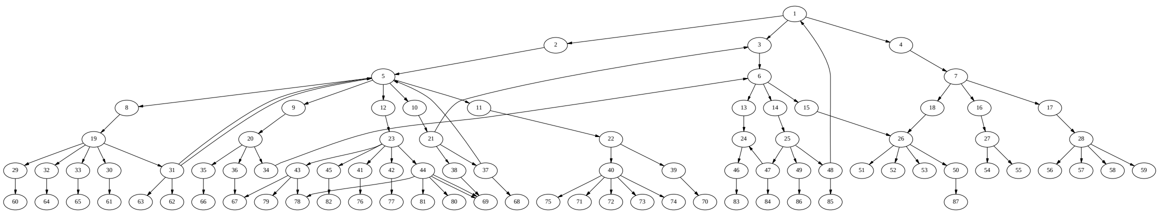
2	0	(0%)
3	0	(0%)
4	9,323	(1.9%)
5	116	(0%)
6	658	(0.1%)

Diamonds
315,179 (65.3%)

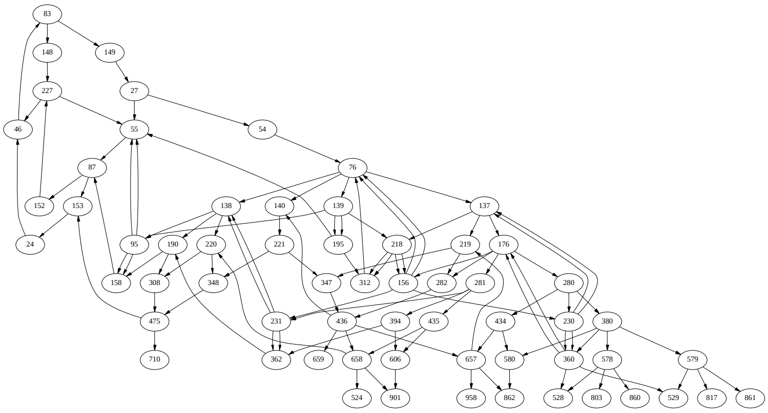
Neighborhoods

k	avg size	avg clustering
1	3.3	1.1
2	8.3	1.3
3	17.5	1.4
4	33.1	1.5

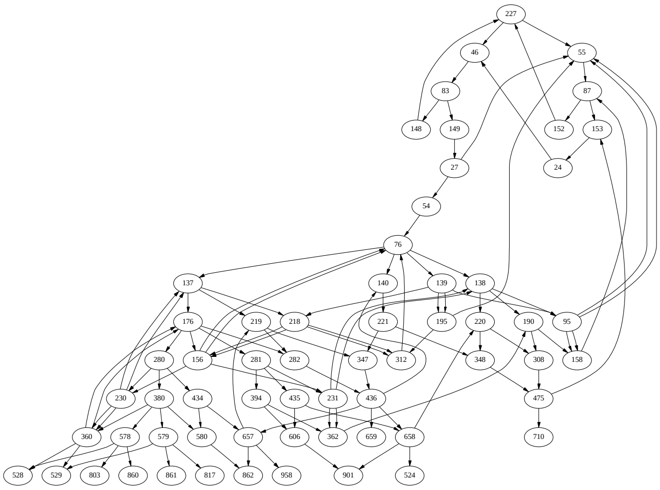
Visualization of some parts of the state state space:
Initial walk length: 0



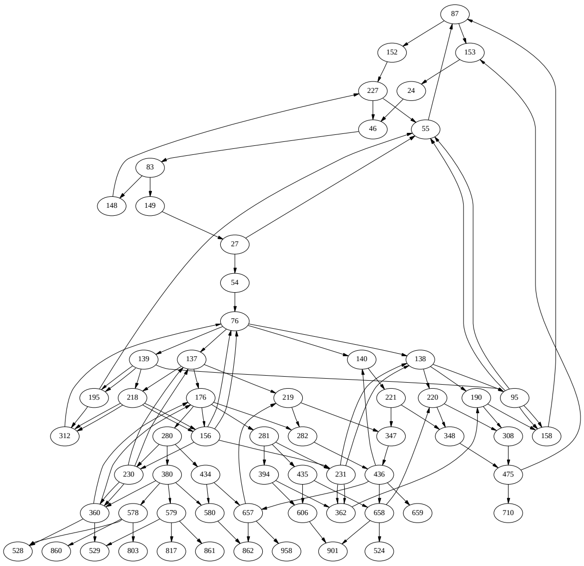
Initial walk length: 20



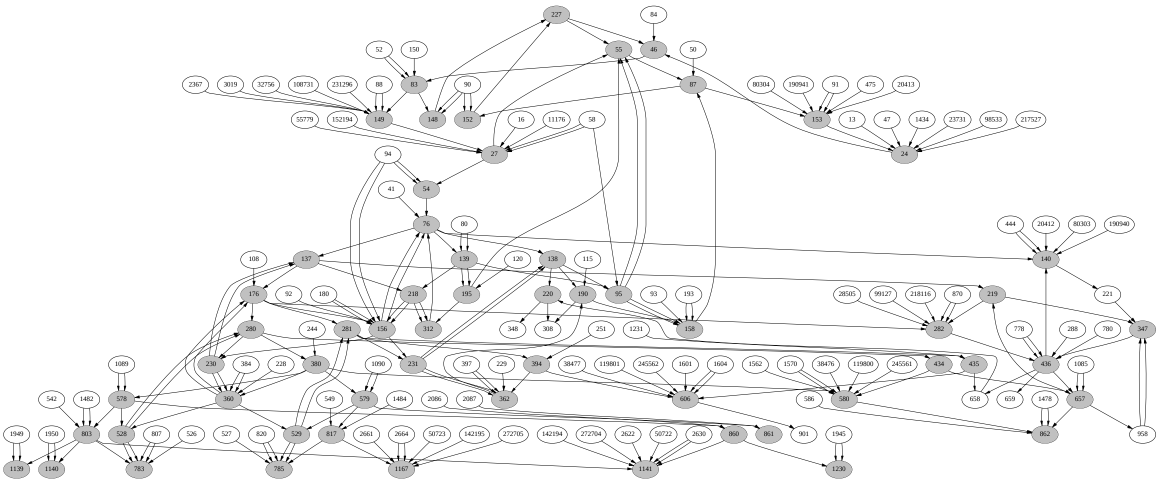
Initial walk length: 40



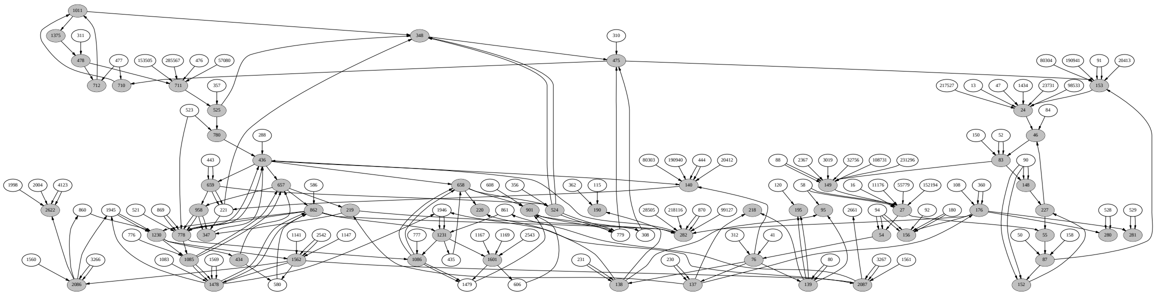
Initial walk length: 60



Initial walk length: 20



Initial walk length: 40



Initial walk length: 60