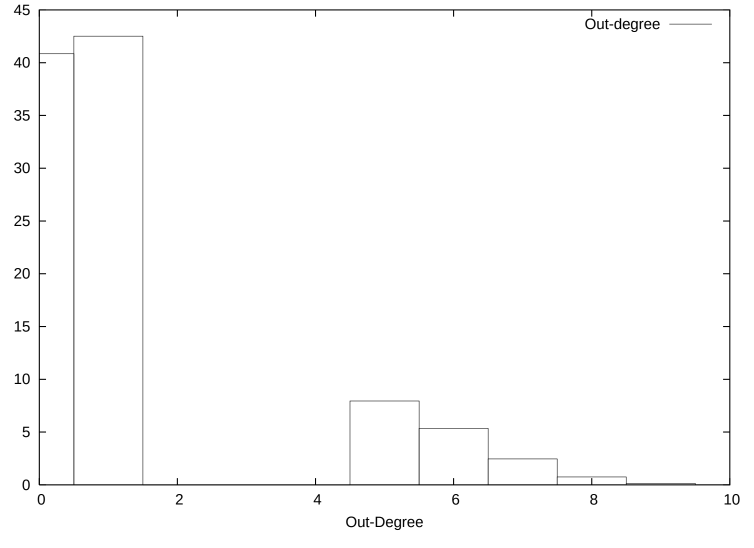
# Graph: spin/test2-ring-5

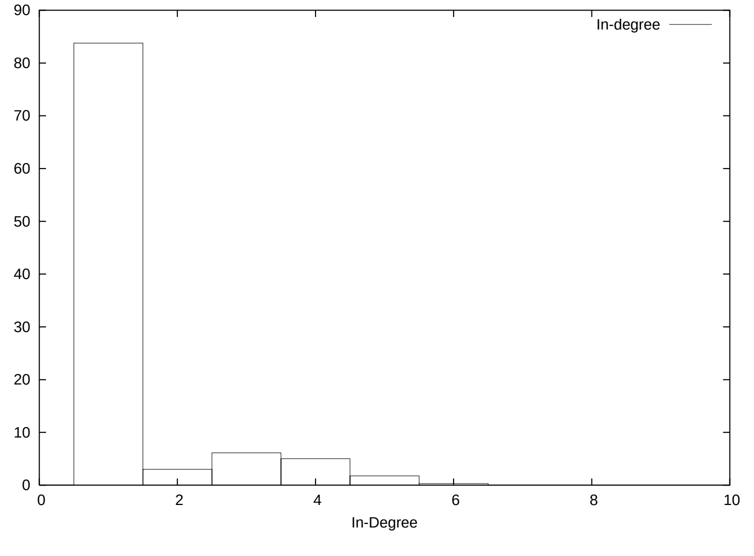
## General Info

| | |
|---|---|
| Example title | Token Ring |
| Parameter | 5 |
| Reduction | |
| Modification | |
| | |
| States | 7,744 |
| Edges | 10,754 |
| Average degree | 1.3 |

Out-Degrees distribution:



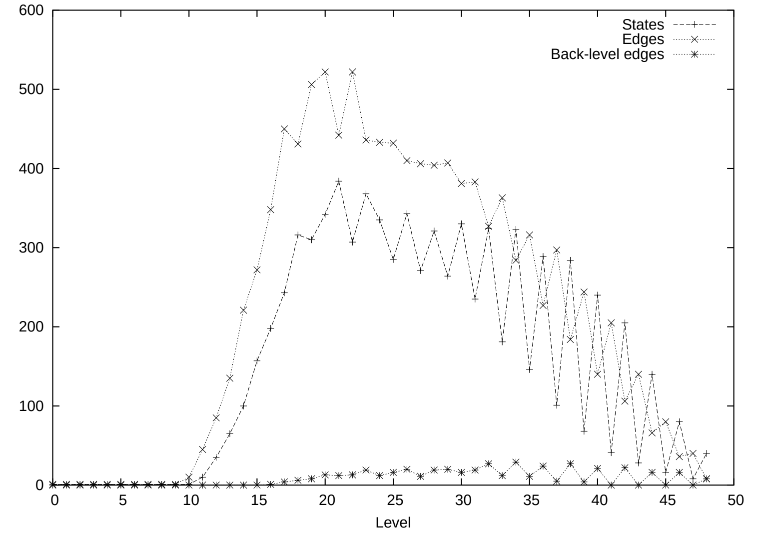

In-Degrees distribution:



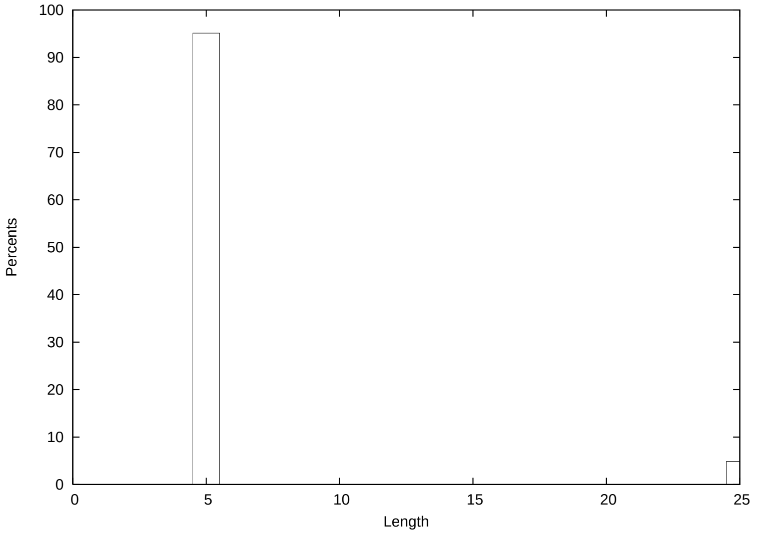
# BFS Info

| | |
|---|---|
| BFS height | 48 |
| BFS width | 384 (4.9%) |
| Back level edges | 431 (4%) |

BFS level info:




Back level edges lengths:



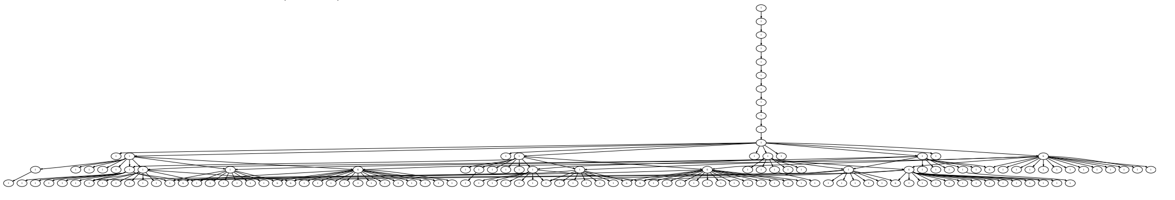
## SCC Info

| | |
|---|---|
| SCC components | 4,455 |
| SCC quetient height | 40 |
| SCC quetient nontrivial height | 24 |
| Number of terminal components | 3,163 |
| The largest component is | intermediate |

Statistics according to **sizes**:

| Size | Number of components | Number of states here |
|---:|---:|---:|
| 2,435 | 1 | 31.4% |
| 6 | 171 | 13.2% |
| 1 | 4,283 | 55.3% |

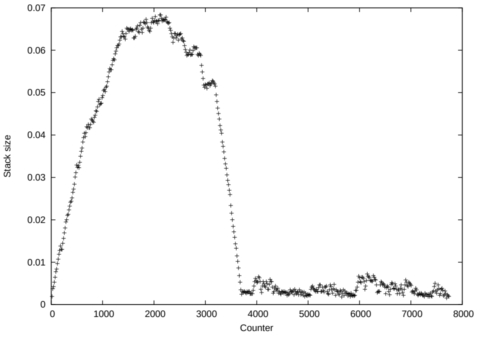
SCC component graph (part):



# DFS Info

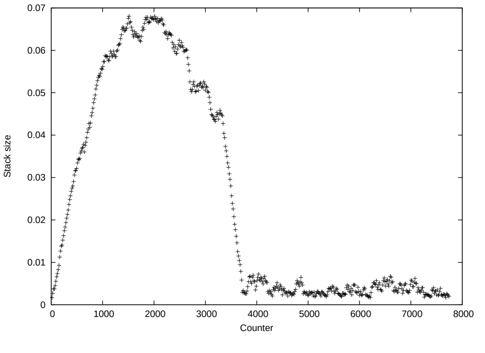
## Run 0

front-edges : back-edges : cross-edges = 7,743 : 739 : 2,272 = 72%:6.8%:21.1%
Max. stack size: 531 (6.8%)
Shortest cycle detected: 6
Most often detected lengths of cycles: 6 (304), 76 (34), 234 (30), 196 (28), 70 (18)
Stack graph:




## Run 1

front-edges : back-edges : cross-edges = 7,743 : 747 : 2,264 = 72%:6.9%:21%
Max. stack size: 527 (6.8%)
Shortest cycle detected: 6
Most often detected lengths of cycles: 6 (300), 284 (25), 234 (24), 38 (24), 120 (23)
Stack graph:



## Local Structure

**Short cycles**(up to 6)

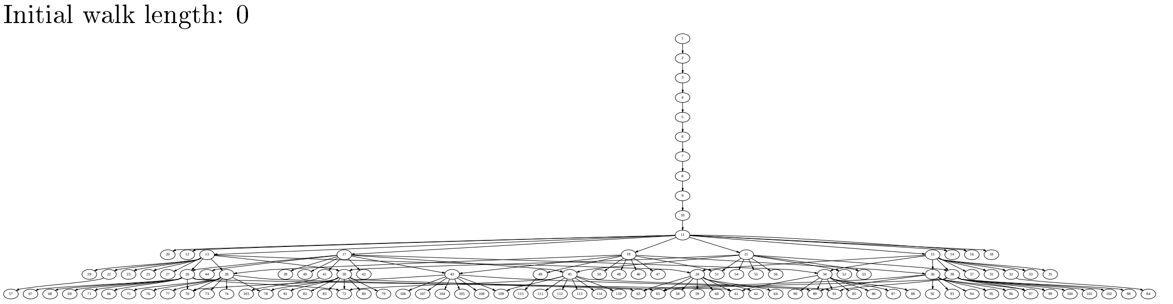
| | | |
|---|---|---|
| 2 | 0 | (0%) |
| 3 | 0 | (0%) |
| 4 | 0 | (0%) |
| 5 | 0 | (0%) |
| 6 | 2,046 | (26.4%) |

**Diamonds**
260 (3.3%)

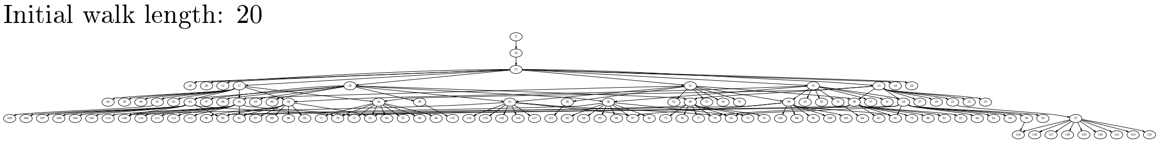
**Neighborhoods**

| $k$ | avg size | avg clustering |
|---|---|---|
| 1 | 2.3 | 1 |
| 2 | 5.9 | 1 |
| 3 | 11.1 | 1 |
| 4 | 20.9 | 1 |

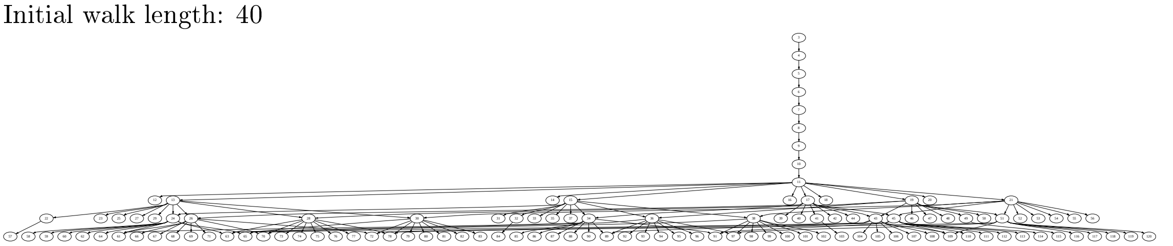
Visualization of some parts of the state state space:
Initial walk length: 0



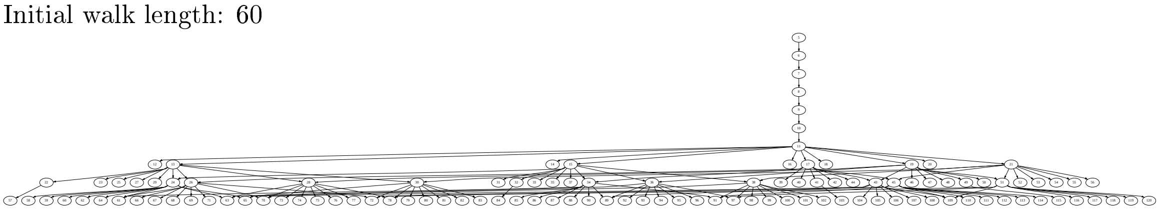
Initial walk length: 20



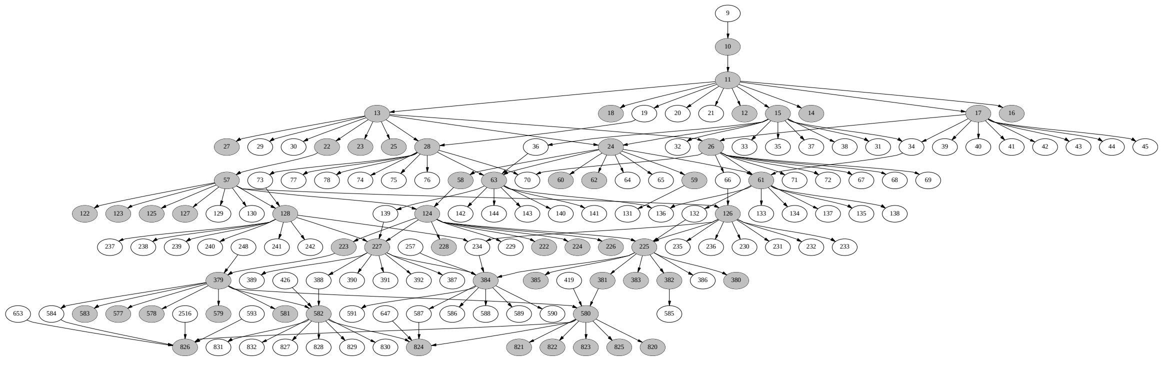
Initial walk length: 40



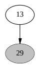
Initial walk length: 60



Initial walk length: 20



Initial walk length: 40



Initial walk length: 60