

Input PD code or string to snappy (use to reproduce the drawing):

[(1, 7, 2, 6), (4, 9, 5, 10), (2, 12, 3, 11), (7, 13, 8, 12), (18, 13, 1, 14), (3, 17, 4, 16), (5, 14, 6, 15), (8, 18, 9, 17), (10, 15, 11, 16)]

Optimal pinning sets:

A) ● {2, 6, 9, 10}

B) ● {1, 3, 4, 8}

Minimal (suboptimal) pinning sets:

a) ● {2, 6, 7, 8, 10, 11}

b) ● {2, 5, 6, 8, 9, 11}

c) ● {2, 5, 7, 8, 9, 10}

d) ● {1, 2, 4, 5, 8, 11}

e) ● {1, 3, 4, 6, 9, 10}

f) ● {2, 3, 4, 7, 8, 11}

g) ● {1, 2, 3, 5, 7, 8}

h) ● {2, 4, 6, 8, 11}

i) ● {2, 5, 7, 8, 11}

j) ● {1, 2, 5, 8, 9}

k) ● {2, 3, 7, 8, 10}

Number of minimal pinning sets: 13

Number of total pinning sets: 395

Pinning number: 4

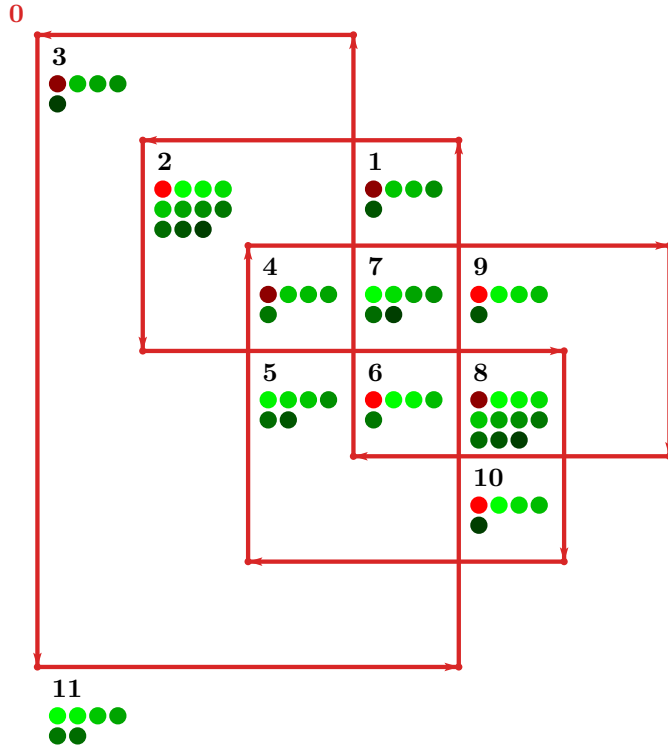


Figure 1: Snappy loop plot.

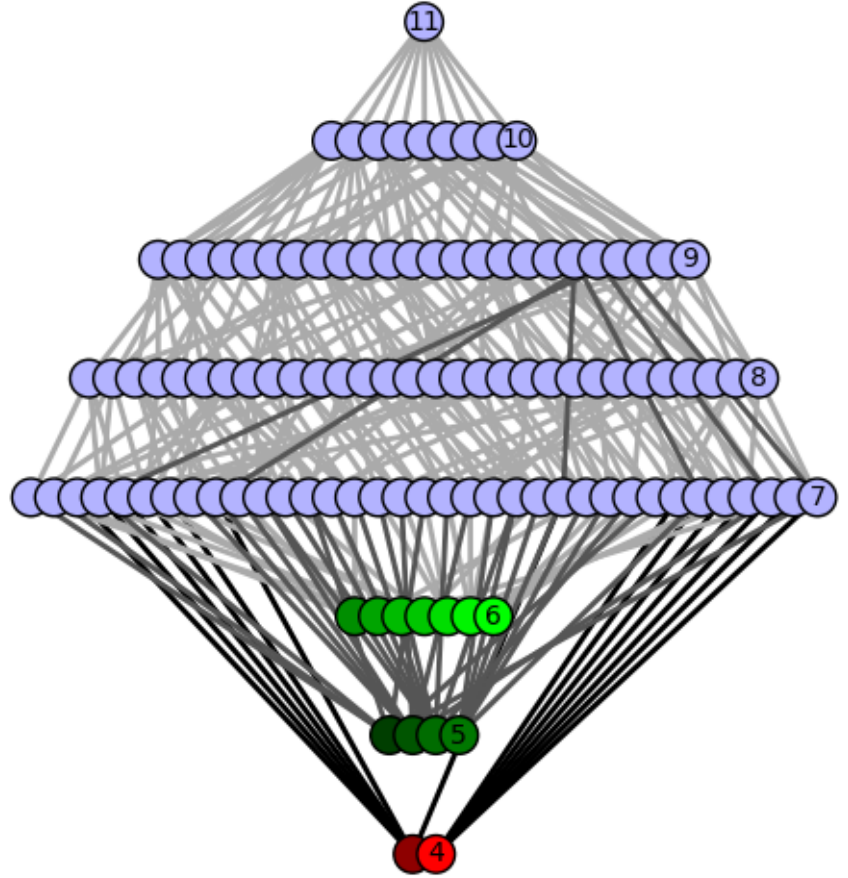


Figure 2: Minimal join semilattice of pinning sets.

Input PD code or string to snappy (use to reproduce the drawing):  
8\_3  
Optimal pinning sets:

0

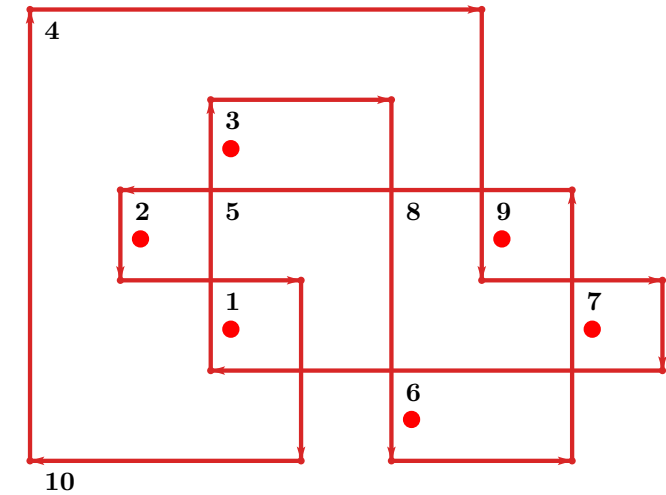


Figure 3: Snappy loop plot.

A) ● {1, 2, 3, 6, 7, 9}  
Number of minimal pinning sets: 1  
Number of total pinning sets: 16  
Pinning number: 6



Figure 4: Minimal join semilattice of pinning sets.

Input PD code or string to snappy (use to reproduce the drawing):

3\_1

Optimal pinning sets:

0

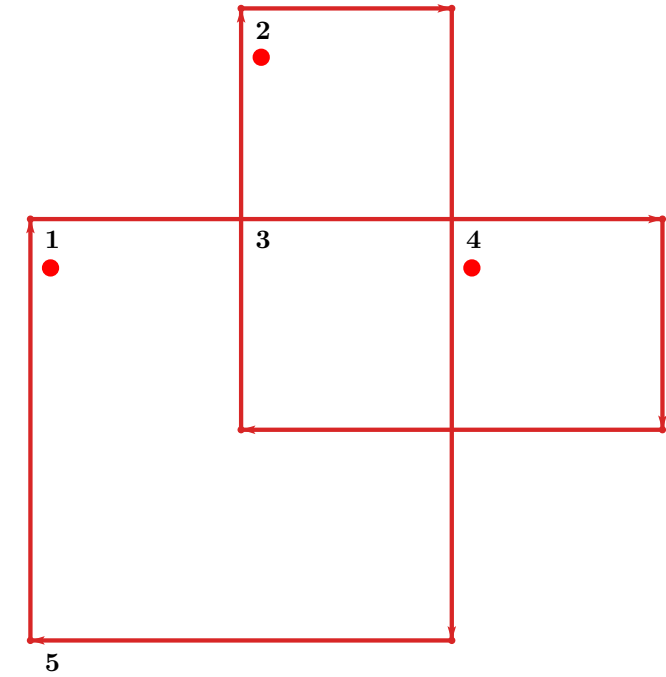


Figure 5: Snappy loop plot.

A)  $\bullet$  {1, 2, 4}

Number of minimal pinning sets: 1

Number of total pinning sets: 4

Pinning number: 3



Figure 6: Minimal join semilattice of pinning sets.

Input PD code or string to snappy (use to reproduce the drawing):

[(1, 7, 2, 6), (3, 8, 4, 9), (5, 11, 6, 10), (16, 12, 1, 11), (2, 13, 3, 14), (4, 16, 5, 15), (7, 12, 8, 13), (9, 15, 10, 14)]

Optimal pinning sets:

- A) ● {1, 3, 5, 7, 9}
- B) ● {1, 3, 5, 8, 10}
- C) ● {1, 3, 4, 7, 8}
- D) ● {1, 3, 4, 7, 9}
- E) ● {2, 4, 5, 8, 9}

F) ● {2, 4, 6, 7, 9}

G) ● {2, 3, 5, 8, 9}

H) ● {2, 3, 5, 7, 9}

I) ● {1, 2, 4, 7, 8}

J) ● {1, 2, 4, 5, 8}

Number of minimal pinning sets: 10

Number of total pinning sets: 160

Pinning number: 5

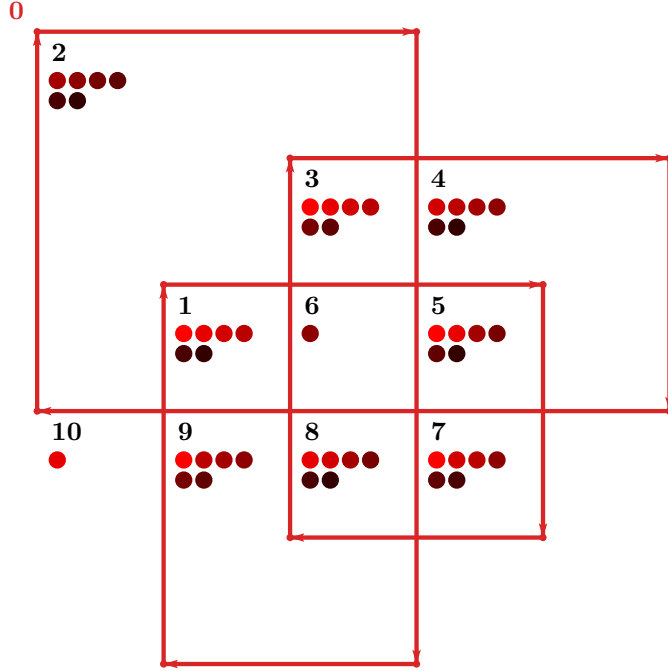


Figure 7: Snappy loop plot.

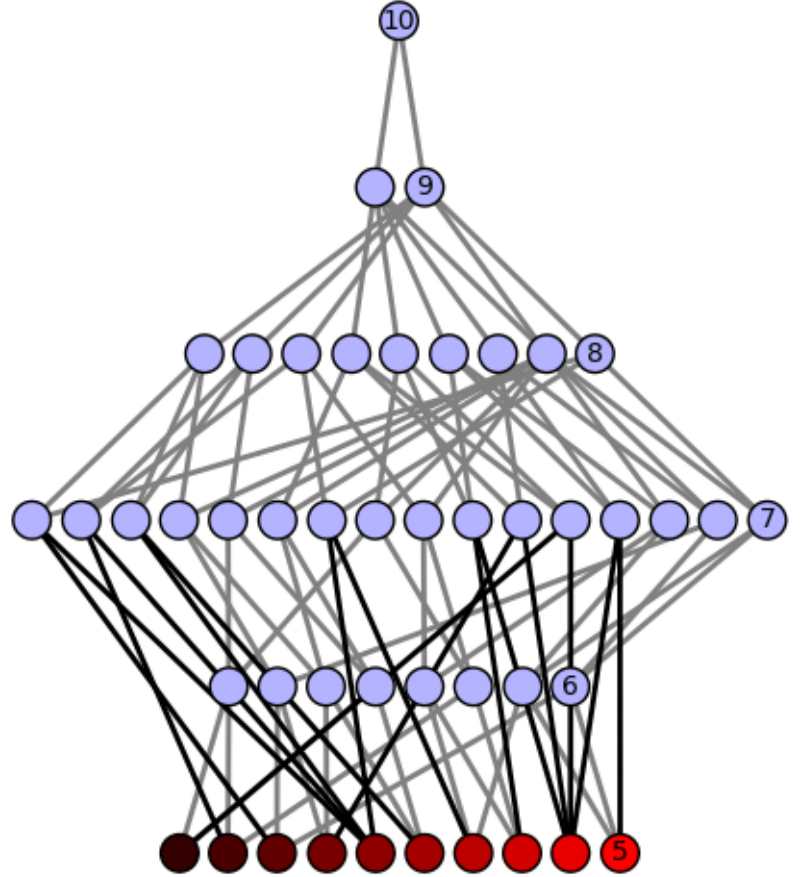


Figure 8: Minimal join semilattice of pinning sets.

**Input PD code or string to snappy (use to reproduce the drawing):**

[(24, 6, 1, 5), (3, 10, 4, 11), (1, 13, 2, 12), (6, 14, 7, 13), (2, 17, 3, 18), (8, 15, 9, 16), (11, 19, 12, 18), (4, 20, 5, 19), (7, 23, 8, 22), (9, 20, 10, 21), (14, 24, 15, 23), (16, 21, 17, 22)]

**Optimal pinning sets:**

- A) ● {2, 4, 8, 9, 13}
- B) ● {1, 3, 6, 7, 11}
- C) ● {1, 2, 6, 8, 9}
- D) ● {1, 2, 6, 7, 9}

**Minimal (suboptimal) pinning sets:**

- a) ● {2, 4, 6, 7, 9, 13}
- b) ● {2, 4, 7, 8, 11, 13}
- c) ● {2, 4, 6, 7, 11, 13}
- d) ● {2, 5, 6, 8, 9, 13}
- e) ● {2, 5, 6, 7, 9, 13}
- f) ● {2, 5, 6, 7, 11, 13}

- g) ● {1, 3, 4, 7, 8, 11}
- h) ● {1, 3, 4, 8, 9, 11}
- i) ● {1, 3, 6, 8, 9, 11}
- j) ● {1, 3, 4, 8, 9, 12}
- k) ● {1, 3, 6, 8, 9, 12}
- l) ● {1, 3, 6, 7, 9, 12}
- m) ● {1, 2, 4, 8, 9, 14}
- n) ● {1, 2, 4, 7, 8, 11}
- o) ● {1, 2, 4, 6, 7, 11}
- p) ● {1, 2, 4, 8, 9, 11}
- q) ● {1, 2, 6, 7, 10, 11}
- r) ● {1, 2, 4, 8, 9, 12}
- s) ● {1, 2, 5, 6, 7, 11}

Number of minimal pinning sets: 23

Number of total pinning sets: 2400

Pinning number: 5

0

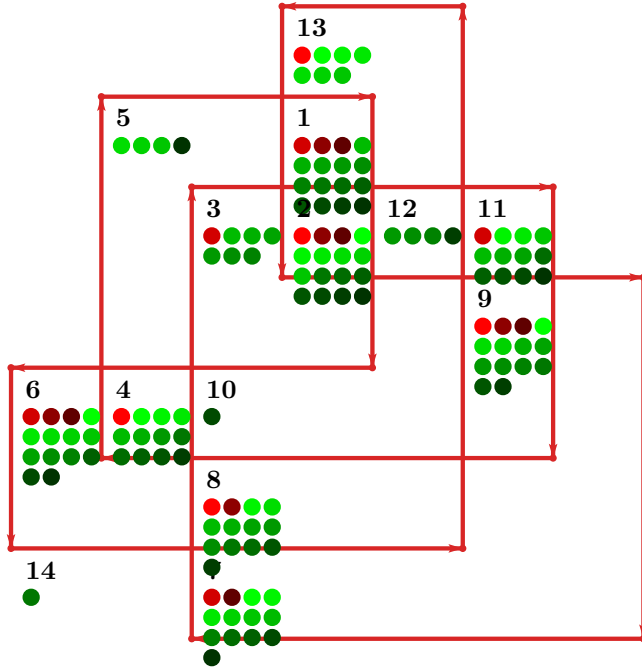


Figure 9: Snappy loop plot.

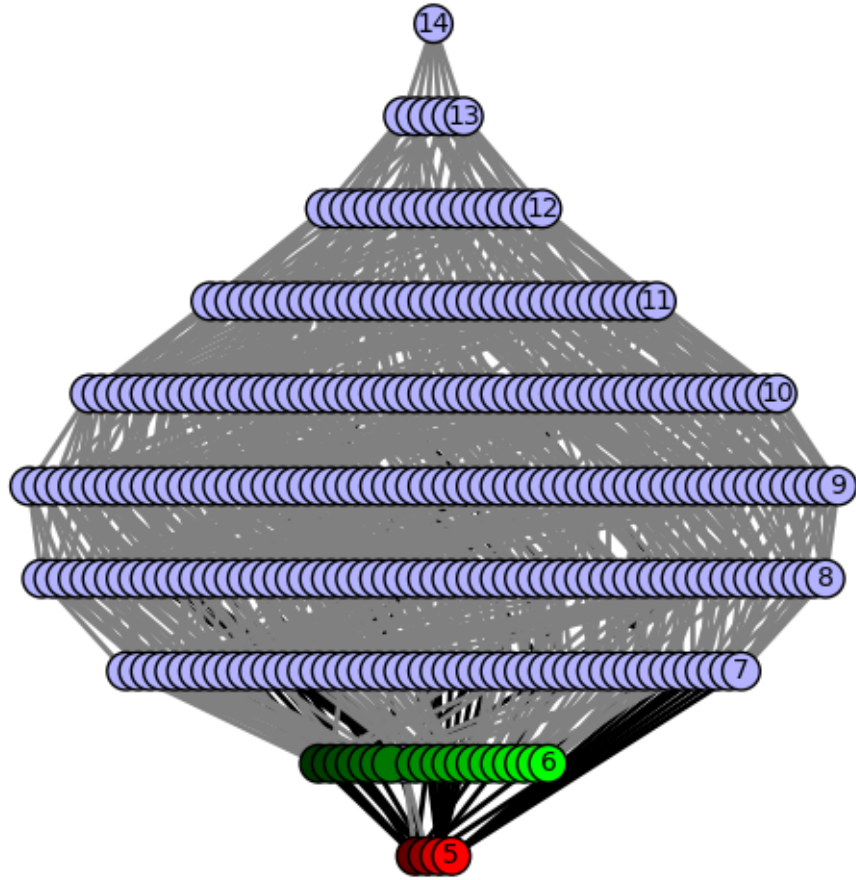


Figure 10: Minimal join semilattice of pinning sets.

Input PD code or string to snappy (use to reproduce the drawing):

4\_1  
Optimal pinning sets:

A) ● {1, 2, 4, 5}

0

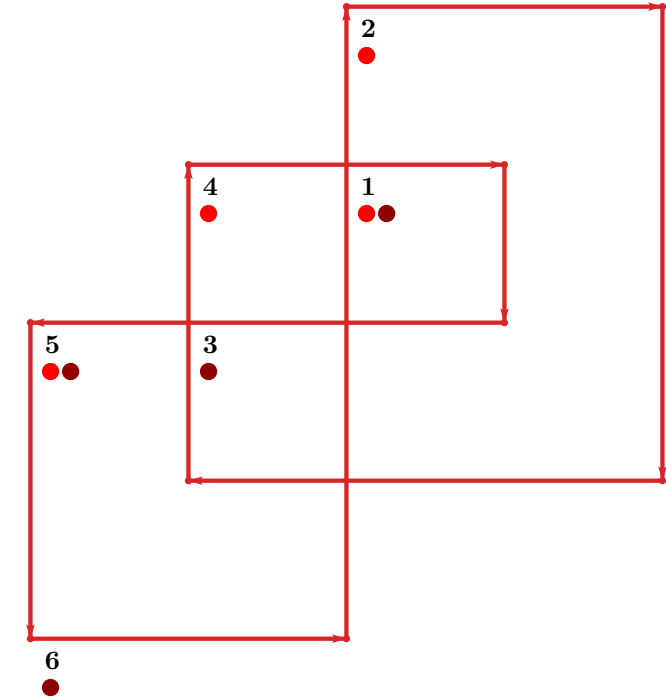


Figure 11: Snappy loop plot.

B) ● {1, 3, 5, 6}

Number of minimal pinning sets: 2  
Number of total pinning sets: 7  
Pinning number: 4

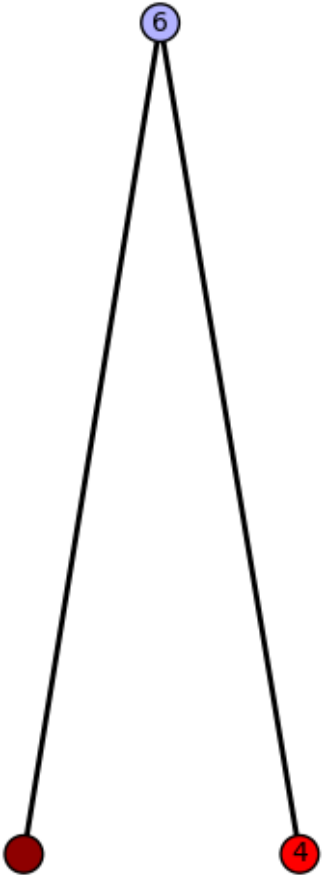



Figure 12: Minimal join semilattice of pinning sets.

Optimal pinning sets:

A)  {1, 2, 3, 4, 6}

Pinning number: 5



7

