Autocar:

Experiement 1: Fixed Network

Graph = [1,(1,2),(2,5),(2,3),(1,6),(1,4),(4,1,7)]; by (u,predisc) = (6,9); 1000 times

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | My\_w | My\_wo (same) | MDL |
| 2 | [68.0,106.0,159.5,259.0,284.5,329.0,414.5,455.0] | [68.0,106.0,159.5,259.0,284.5,329.0,414.5,455.0] | [68.0,455.0] |
| 3 | [46.0,71.5,99.0,127.0,151.0,191.5,230.0] | [46.0,71.5,99.0,127.0,151.0,191.5,230.0] | [46.0,230.0] |
| 4 | [9.0,14.75,17.25,20.9,23.95,26.2,46.6] | [9.0,14.75,17.25,20.9,23.95,26.2,46.6] | [9.0,21.05,46.6] |
| 5 | [1613.0,2203.5,2442.5,3007.5,3657.5,4303.5,5140.0] | [1613.0,2203.5,2442.5,3007.5,3657.5,4303.5,5140.0] | [1613.0,5140.0] |
| 6 | [8.0,13.75,15.25,24.8] | [8.0,13.75,15.25,24.8] | [8.0,13.75,24.8] |
| Likeli \* 392 | -9963.224359353082 | -9963.224359353082 | -11323.292654695751 |

Experiment 2:Housing

Experiment 1:

Graph = [5,(5,2),(5,8),(5,2,3),(3,5,2,9),(5,2,7),(9,3,2,10),(9,3,10,11),(7,13),1,(10,12),(13,14),4,(14,1,6)]; by (u,predisc) = (2,5); 1000 times

Wine

Experiment 1:

Graph = [8,(8,1),(1,11),(1,4),(1,2),(8,7),(1,14),(8,4,1,9),(1,3),(1,8,13),(14,1,6),(1,4,5),(1,12),(8,6,10)]; by (u,predisc) = (13,3); 1000 times

( my\_w, my\_wo, MDL ) = (-3593.606730780144,-3550.7741050533505,-4201.250330682232)

|  |  |  |  |
| --- | --- | --- | --- |
| V | My\_w | My\_wo | MDL |
| 2 | [11.03,12.745,13.54,14.83] | [11.03,12.745,13.54,14.83] | [11.03,12.78,14.83] |
| 3 | [0.74,1.42,2.235,5.8] | [0.74,1.42,2.235,5.8] | [0.74,1.42,2.235,5.8] |
| 4 | [1.36,2.03,2.63,3.07,3.23] | [1.36,2.03,2.605,3.07,3.23] | [1.36,3.23] |
| 5 | [10.6,17.9,24.25,30.0] | [10.6,17.9,23.25,30.0] | [10.6,17.9,30.0] |
| 6 | [70.0,88.5,135.0,162.0] | [70.0,88.5,135.0,162.0] | [70.0,162.0] |
| 7 | [0.98,2.105,2.58,3.88] | [0.98,2.105,2.58,3.01,3.88] | [0.98,3.88] |
| 8 | [0.34,0.975,1.885,2.31,5.08] | [0.34,0.975,1.885,2.31,3.355,5.08] | [0.34,5.08] |
| 9 | [0.13,0.395,0.66] | [0.13,0.395,0.66] | [0.13,0.395,0.66] |
| 10 | [0.41,1.655,3.58] | [0.41,1.185,1.655,3.58] | [0.41,3.58] |
| 11 | [1.28,3.46,4.85,7.4,13.0] | [1.28,3.46,4.85,7.4,13.0] | [1.28,3.46,7.55,13.0] |
| 12 | [0.48,0.785,1.005,1.295,1.71] | [0.48,0.785,1.005,1.295,1.71] | [0.48,0.785,1.71] |
| 13 | [1.27,2.19,2.49,4.0] | [1.27,2.475,4.0] | [1.27,2.115,2.505,4.0] |
| 14 | [278.0,476.0,716.0,900.5,1680.0] | [278.0,476.0,716.0,900.5,1680.0] | [278.0,1680.0] |

Experiment 2:

U = max; K2 50 times;

K2 score = 1323.5317217238487

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

Disc\_edge = [[11.03,12.745000000000001,14.83],[0.74,2.2350000000000003,5.8],[1.36,1.53,1.85,3.23],[10.6,17.9,30.0],[70.0,88.5,133.0,162.0],[0.98,2.58,3.88],[0.34,0.975,2.31,2.715,4.505,5.08],[0.13,0.66],[0.41,0.485,1.3250000000000002,1.645,3.4299999999999997,3.58],[1.28,3.46,4.85,7.4,13.0],[0.48,0.855,1.71],[1.27,2.005,2.19,4.0],[278.0,368.5,953.5,1680.0]]