

## Contents

<b>1</b>	<b>Model</b>	<b>2</b>
1.1	Complex, Filtration and Homotopy . . . . .	2
1.2	Transpositions . . . . .	2
<b>2</b>	<b>General Statistics</b>	<b>4</b>
<b>3</b>	<b>present the details</b>	<b>9</b>
<b>4</b>	<b>Depth Posets</b>	<b>15</b>

# 1 Model

## 1.1 Complex, Filtration and Homotopy

In this model we define the simplicial complex by the Delauney triangulation of  $n = 24$  points such that  $n - 2^d$  of them are uniformly distributed in the cube  $[0, 1]^d$  and rest  $2^d$  are the corners of this cube for  $d = 2$ .

We defining the filtration on this complex, by assuming uniformly distributed in  $[0, 1]$  height  $h(f)$  for each vertex  $v$ . Then the filtration value of the simplex will be the maximum haight of its vertices.

$$f(\sigma) = \max_{v \in \sigma} h(v)$$

We define 2 filtrations like this and study the linear homotopy between them. In the Figure 1 we can see these 2 filtrations:

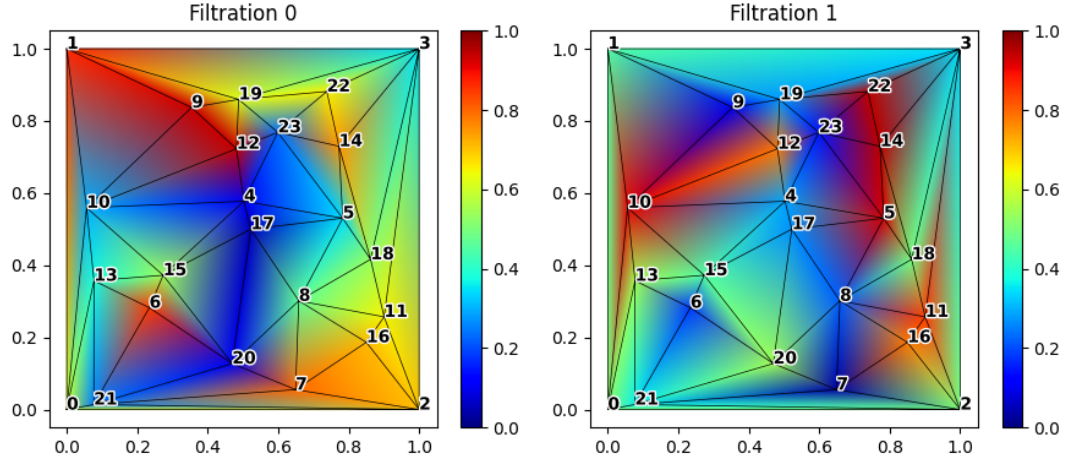


Figure 1: 2 filtrations on the defined complex.

Having these 2 filtrations we can define the homotopy between them by defining the linear homotopy between heights:

$$h_t(v) = h_0(v) \cdot (1 - t) + h_1(v) \cdot t$$

$$f_t(\sigma) = \max_{v \in \sigma} h_t(v)$$

## 1.2 Transpositions

In the Figure 2 we can see the vertices height  $h_t(v)$  during this homotopy.

When there is a cross of lines  $h_t(i)$  and  $h_t(j)$  ( $t : h_t(i) = h_t(j)$ ) there is transposition of heights of vertices  $i$  and  $j$ . This means that happens reordering in the filtration  $f_t$ . The order given by  $f_{t-\varepsilon}$  changes to the order given by  $f_{t+\varepsilon}$ .

Let's  $h_t(i) < h_t(j)$ . We can define 3 groups of simplices moved in the order:

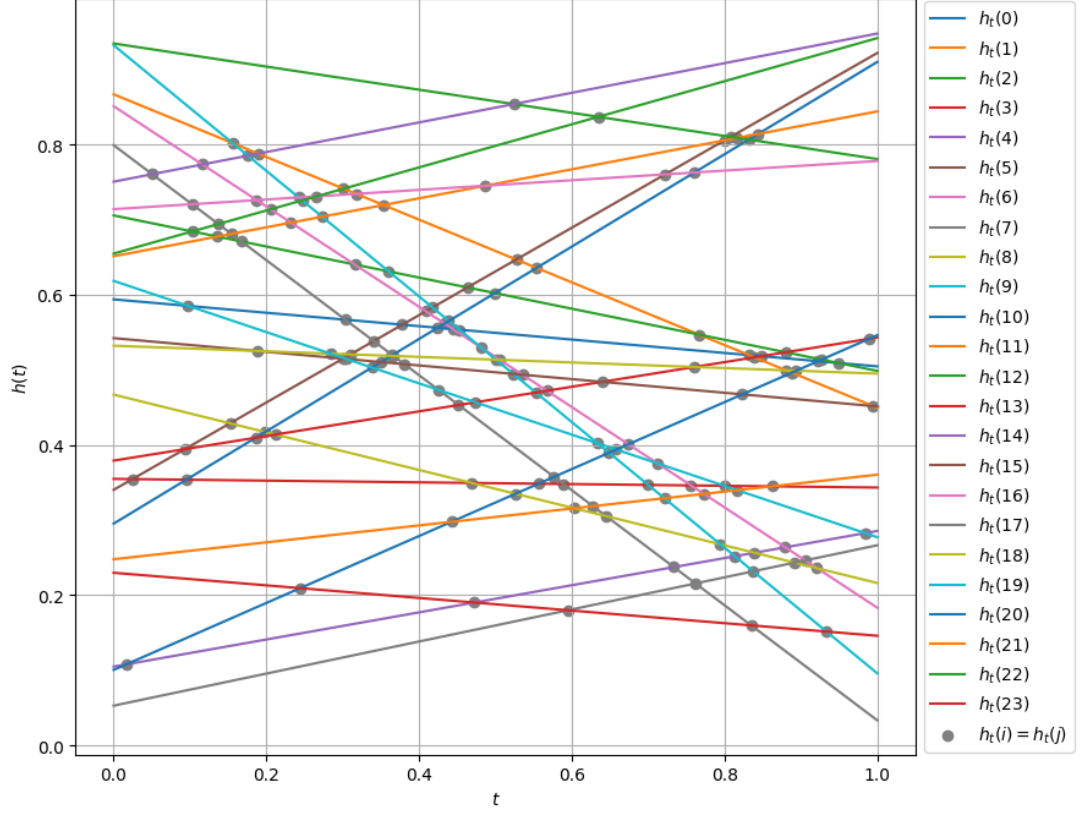


Figure 2: Heights of Vertices during the Homotopy.

1.  $A = \{\sigma : i \in \sigma, j \notin \sigma, \nexists v \in \sigma : h(v) > h(j)\}$
2.  $B = \{\sigma : i \notin \sigma, j \in \sigma, \nexists v \in \sigma : h(v) > h(j)\}$
3.  $C = \{\sigma : i \in \sigma, j \in \sigma, \nexists v \in \sigma : h(v) > h(j)\}$

In the order given by  $f_{t-\varepsilon}$  the group  $A$  stays on the first  $\#A$  places, and in the order given by  $f_{t+\varepsilon}$  the group  $B$  stays on the first  $\#B$  places.

There are many paths of transpositions in the order, which brings us from the order  $f_{t-\varepsilon}$  to the order  $f_{t+\varepsilon}$  with the constrain that  $\sigma_0$  stays before  $\sigma_1$  if  $\sigma_0 \subset \sigma_1$ . We defined 2 of them:

Up directed The first we move simplices of group  $B$  to the first places, and then we move simplices to group  $C$  to their places in  $f_{t+\varepsilon}$ .

Down directed The first we move simplices of group  $C$  to the last places, and then we move simplices of group  $A$  to their places in  $f_{t+\varepsilon}$ .

## 2 General Statistics

In 2 paths generated 4755 unique transpositions: 4755 in only upper path, 0 in only down path and 0 in both paths.

The distribution of the switch transposition types and dimensions is given in the table:

dim	0		1		2		undefined
changing	no	yes	no	yes	no	yes	no
birth-birth	0	2	0	13	0	0	0
birth-death	0	0	0	20	0	0	0
death-death	0	0	0	4	0	10	0
no switch	106	23	1151	39	583	22	2782

Here the dimension of a transposition can be undefined if we are transposing simplices of different dimensions.

And we can see more detailed table about how many simplex transpositions of each type lies in each reordering defined by the transposition of heights on vertices:

Time	Vertices	Value	Figure	Type	birth-birth		birth-death		death-death		no switch
				Dim Path	0	1	1	1	2	2	
0.016	$\langle 4, 20 \rangle$	0.108	??	Up	0	0	0	0	0	0	4
0.025	$\langle 3, 5 \rangle$	0.354	??	Up	0	0	0	0	0	0	6
0.050	$\langle 7, 14 \rangle$	0.760	??	Up	0	0	0	0	0	0	121
0.093	$\langle 5, 13 \rangle$	0.394	??	Up	0	0	0	0	0	0	18
0.095	$\langle 3, 10 \rangle$	0.354	??	Up	0	0	0	0	0	0	2
0.098	$\langle 0, 19 \rangle$	0.585	??	Up	0	0	0	0	0	0	18
0.103	$\langle 2, 22 \rangle$	0.684	??	Up	0	0	0	0	0	0	42
	$\langle 7, 16 \rangle$	0.721	??	Up	0	0	0	0	2	0	72
0.116	$\langle 6, 14 \rangle$	0.773	??	Up	0	0	0	0	0	0	99
0.136	$\langle 2, 11 \rangle$	0.677	??	Up	0	0	1	0	0	0	42
0.137	$\langle 7, 22 \rangle$	0.694	??	Up	0	0	0	0	0	0	48
0.152	$\langle 5, 8 \rangle$	0.429	??	Up	0	0	1	0	0	0	34
0.154	$\langle 7, 11 \rangle$	0.681	??	Up	0	0	0	0	0	0	64
0.156	$\langle 1, 9 \rangle$	0.802	3	Up	0	1	1	0	0	0	28
0.167	$\langle 2, 7 \rangle$	0.671	??	Up	0	1	1	0	0	0	36
0.176	$\langle 9, 14 \rangle$	0.785	??	Up	0	0	0	0	0	0	33
0.186	$\langle 10, 13 \rangle$	0.410	4	Up	0	0	1	0	0	0	4
0.187	$\langle 6, 16 \rangle$	0.726	??	Up	0	0	0	0	0	0	81
0.188	$\langle 15, 18 \rangle$	0.525	??	Up	0	0	0	0	0	0	50
0.189	$\langle 1, 14 \rangle$	0.788	??	Up	0	0	0	0	0	0	110

Time	Vertices	Value	Figure	Type	birth-birth		birth-death		death-death		no switch
				Dim Path	0	1	1	1	1	2	
0.198	$\langle 8, 10 \rangle$	0.417	??	Up	0	0	0	0	0	0	12
0.206	$\langle 6, 22 \rangle$	0.714	??	Up	0	0	0	0	0	0	54
0.212	$\langle 8, 13 \rangle$	0.414	??	Up	0	0	0	0	0	0	8
0.232	$\langle 6, 11 \rangle$	0.696	??	Up	0	0	0	0	0	0	72
0.242	$\langle 9, 16 \rangle$	0.729	??	Up	0	0	0	0	0	0	27
0.244	$\langle 20, 23 \rangle$	0.209	??	Up	0	0	0	0	0	0	4
0.247	$\langle 9, 22 \rangle$	0.726	??	Up	0	0	0	0	0	0	18
0.266	$\langle 16, 22 \rangle$	0.731	??	Up	0	0	0	0	0	0	54
0.273	$\langle 9, 11 \rangle$	0.704	??	Up	0	0	0	0	0	0	24
0.284	$\langle 18, 19 \rangle$	0.522	5	Up	0	0	1	0	0	0	14
0.300	$\langle 5, 15 \rangle$	0.515	??	Up	0	0	0	0	0	0	80
0.301	$\langle 1, 22 \rangle$	0.741	??	Up	0	0	0	0	0	0	60
	$\langle 5, 19 \rangle$	0.516	??	Up	0	0	0	0	0	0	24
0.303	$\langle 0, 7 \rangle$	0.567	??	Up	0	0	0	0	0	0	36
0.305	$\langle 15, 19 \rangle$	0.514	??	Up	0	0	0	0	0	0	30
0.310	$\langle 5, 18 \rangle$	0.521	??	Up	0	1	0	0	0	0	28
0.316	$\langle 2, 6 \rangle$	0.640	??	Up	0	0	0	0	0	0	63
0.318	$\langle 1, 16 \rangle$	0.734	??	Up	0	0	0	0	0	0	90
0.338	$\langle 10, 19 \rangle$	0.503	??	Up	0	0	0	0	0	0	9
0.341	$\langle 5, 7 \rangle$	0.538	??	Up	0	0	0	0	0	0	60
0.350	$\langle 10, 15 \rangle$	0.510	??	Up	0	1	0	0	0	0	34
0.353	$\langle 1, 11 \rangle$	0.719	??	Up	0	0	0	0	0	0	80
0.360	$\langle 2, 9 \rangle$	0.631	??	Up	0	0	0	0	0	0	21
0.363	$\langle 10, 18 \rangle$	0.519	??	Up	0	0	0	0	0	0	18
0.365	$\langle 7, 10 \rangle$	0.520	??	Up	0	0	0	0	0	0	36
0.366	$\langle 7, 18 \rangle$	0.518	??	Up	0	0	0	0	0	0	18
0.378	$\langle 0, 5 \rangle$	0.560	??	Up	0	0	0	0	0	0	60
0.381	$\langle 7, 15 \rangle$	0.508	??	Up	0	0	0	0	0	0	42
0.409	$\langle 5, 6 \rangle$	0.578	??	Up	0	0	0	0	0	0	90
0.417	$\langle 5, 9 \rangle$	0.583	??	Up	0	0	0	0	0	0	30
0.424	$\langle 0, 10 \rangle$	0.556	6	Up	0	0	2	0	1	0	34
0.426	$\langle 7, 19 \rangle$	0.473	??	Up	0	0	0	0	0	0	18
0.433	$\langle 6, 10 \rangle$	0.562	??	Up	0	0	0	0	0	0	72
0.439	$\langle 9, 10 \rangle$	0.565	??	Up	0	0	1	0	0	0	21
0.442	$\langle 20, 21 \rangle$	0.298	??	Up	0	0	0	0	0	0	2
0.445	$\langle 0, 6 \rangle$	0.554	??	Up	0	0	0	0	0	0	36

Time	Vertices	Value	Figure	Type	birth-birth		birth-death		death-death		no switch
				Dim Path	0	1	1	1	1	2	
0.452	$\langle 7, 13 \rangle$	0.453	??	Up	0	0	0	0	0	0	12
0.453	$\langle 0, 9 \rangle$	0.553	??	Up	0	0	0	0	0	0	8
0.463	$\langle 2, 5 \rangle$	0.610	??	Up	0	0	0	0	0	0	70
0.469	$\langle 3, 8 \rangle$	0.349	??	Up	0	0	0	0	0	0	4
0.472	$\langle 4, 23 \rangle$	0.190	??	Up	0	0	0	0	0	0	2
0.474	$\langle 13, 19 \rangle$	0.457	??	Up	0	0	0	0	0	0	6
0.482	$\langle 6, 9 \rangle$	0.529	??	Up	0	0	0	0	0	0	18
0.487	$\langle 11, 16 \rangle$	0.745	??	Up	0	0	0	0	1	1	56
0.499	$\langle 2, 10 \rangle$	0.602	??	Up	0	0	0	0	0	0	63
0.501	$\langle 9, 18 \rangle$	0.513	??	Up	0	0	0	0	0	0	6
0.506	$\langle 6, 18 \rangle$	0.513	??	Up	0	0	0	0	0	0	27
0.523	$\langle 9, 15 \rangle$	0.495	??	Up	0	0	0	0	0	0	14
0.524	$\langle 12, 14 \rangle$	0.854	??	Up	0	0	0	0	0	0	121
0.526	$\langle 8, 20 \rangle$	0.335	7	Up	0	0	1	0	0	0	8
0.527	$\langle 1, 5 \rangle$	0.647	??	Up	0	0	0	0	0	0	100
0.535	$\langle 6, 15 \rangle$	0.493	??	Up	0	2	0	0	1	1	60
0.553	$\langle 9, 13 \rangle$	0.470	??	Up	0	0	0	0	0	0	4
0.554	$\langle 1, 10 \rangle$	0.636	??	Up	0	2	0	0	0	0	89
0.556	$\langle 3, 20 \rangle$	0.348	??	Up	0	0	0	0	0	0	5
0.567	$\langle 6, 13 \rangle$	0.472	8	Up	0	1	2	0	0	0	10
0.577	$\langle 7, 20 \rangle$	0.357	9	Up	0	0	2	0	0	0	22
0.589	$\langle 3, 7 \rangle$	0.348	??	Up	0	0	0	0	0	0	3
0.595	$\langle 17, 23 \rangle$	0.180	??	Up	0	0	0	0	0	0	1
0.603	$\langle 8, 21 \rangle$	0.316	??	Up	0	0	0	0	0	0	2
0.628	$\langle 7, 21 \rangle$	0.318	??	Up	0	0	0	0	0	0	2
0.634	$\langle 9, 19 \rangle$	0.402	??	Up	0	0	0	0	0	0	4
0.635	$\langle 12, 22 \rangle$	0.837	??	Up	0	0	0	0	0	0	66
0.640	$\langle 13, 15 \rangle$	0.484	??	Up	0	0	0	0	0	0	46
0.645	$\langle 7, 8 \rangle$	0.305	10	Up	0	0	0	1	0	0	2
0.649	$\langle 9, 20 \rangle$	0.390	??	Up	0	0	0	0	0	0	8
0.658	$\langle 19, 20 \rangle$	0.394	??	Up	0	0	0	0	0	0	32
0.674	$\langle 6, 20 \rangle$	0.401	11	Up	0	0	2	0	1	1	22
0.700	$\langle 3, 9 \rangle$	0.347	12	Up	1	0	0	0	0	0	0
0.712	$\langle 6, 19 \rangle$	0.375	??	Up	0	0	0	0	0	0	8
0.721	$\langle 9, 21 \rangle$	0.329	??	Up	0	0	0	0	0	0	2
0.722	$\langle 5, 16 \rangle$	0.760	??	Up	0	0	0	0	0	0	60

Time	Vertices	Value	Figure	Type	birth-birth		birth-death		death-death		no switch
				Dim Path	0	1	1	1	2	2	
0.734	$\langle 4, 7 \rangle$	0.237	??	Up	0	0	0	0	0	0	3
0.756	$\langle 3, 6 \rangle$	0.346	??	Up	0	0	0	0	0	0	2
0.760	$\langle 10, 16 \rangle$	0.763	??	Up	0	0	0	0	0	0	72
0.761	$\langle 13, 18 \rangle$	0.504	??	Up	0	0	0	0	0	0	18
0.762	$\langle 7, 17 \rangle$	0.216	??	Up	0	0	0	0	0	0	1
0.767	$\langle 1, 2 \rangle$	0.547	??	Up	0	0	0	0	0	0	49
0.773	$\langle 6, 21 \rangle$	0.335	13	Up	0	0	0	1	0	0	2
0.795	$\langle 8, 9 \rangle$	0.268	??	Up	0	0	0	0	0	0	3
0.800	$\langle 3, 19 \rangle$	0.346	14	Up	1	0	0	0	0	0	4
	$\langle 5, 11 \rangle$	0.806	??	Up	0	0	0	0	0	0	110
0.808	$\langle 5, 12 \rangle$	0.810	??	Up	0	0	0	0	0	0	110
0.814	$\langle 4, 9 \rangle$	0.252	??	Up	0	0	0	0	0	0	3
0.817	$\langle 11, 12 \rangle$	0.809	??	Up	0	0	0	0	0	0	121
	$\langle 19, 21 \rangle$	0.340	??	Up	0	0	0	0	0	0	9
0.823	$\langle 15, 20 \rangle$	0.467	??	Up	0	0	0	0	1	0	62
0.832	$\langle 0, 1 \rangle$	0.520	??	Up	0	0	2	0	0	0	30
	$\langle 10, 12 \rangle$	0.807	??	Up	0	0	0	0	2	0	124
0.835	$\langle 7, 23 \rangle$	0.160	??	Up	0	0	0	0	0	0	1
0.838	$\langle 9, 17 \rangle$	0.232	??	Up	0	0	0	0	0	0	1
0.839	$\langle 1, 13 \rangle$	0.517	??	Up	0	0	0	0	0	0	36
	$\langle 4, 8 \rangle$	0.256	15	Up	0	0	0	1	0	0	8
0.844	$\langle 10, 11 \rangle$	0.814	??	Up	0	0	0	0	0	0	165
0.848	$\langle 0, 13 \rangle$	0.518	16	Up	0	1	1	0	1	0	22
0.862	$\langle 3, 21 \rangle$	0.345	??	Up	0	0	0	0	0	0	6
0.880	$\langle 1, 18 \rangle$	0.499	??	Up	0	0	0	0	0	0	18
	$\langle 2, 13 \rangle$	0.523	??	Up	0	0	0	0	0	0	56
	$\langle 4, 6 \rangle$	0.264	??	Up	0	0	0	0	0	0	3
0.888	$\langle 1, 20 \rangle$	0.496	??	Up	0	0	0	0	0	0	78
0.892	$\langle 8, 17 \rangle$	0.243	??	Up	0	0	0	0	0	0	2
0.894	$\langle 18, 20 \rangle$	0.499	??	Up	0	0	0	0	0	0	39
0.906	$\langle 6, 17 \rangle$	0.246	??	Up	0	0	0	0	0	0	2
0.921	$\langle 6, 8 \rangle$	0.236	??	Up	0	0	0	0	0	0	2
0.922	$\langle 0, 20 \rangle$	0.512	??	Up	0	0	0	0	0	0	39
0.927	$\langle 2, 20 \rangle$	0.514	??	Up	0	0	0	0	0	0	91
0.934	$\langle 9, 23 \rangle$	0.151	??	Up	0	0	0	0	0	0	1
0.949	$\langle 0, 2 \rangle$	0.509	17	Up	0	3	1	0	0	0	17

Time	Vertices	Value	Figure	Type	birth-birth		birth-death		death-death		no switch
				Dim Path	0	1	1	1	2		
0.984	$\langle 4, 19 \rangle$	0.283	18	Up	0	0	0	1	0		8
0.989	$\langle 13, 20 \rangle$	0.541	??	Up	0	0	0	0	0		104
0.995	$\langle 1, 15 \rangle$	0.452	??	Up	0	0	0	0	0		30



### 3 present the details

Here we detalize the paths, how depth poset changed during the homotopy by different paths.

In the figures we can see graphs, which edges corresponds the transpositions of simplices, and nodes are orders, corresponding one of 134 Depth Posets we got.

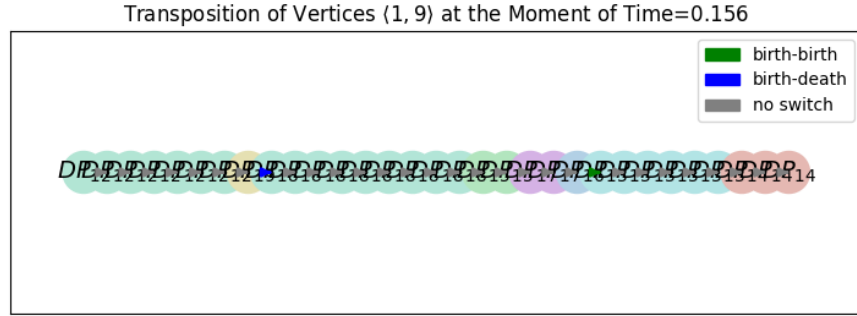


Figure 3: Reordering by transposition of vertices 1 and 9

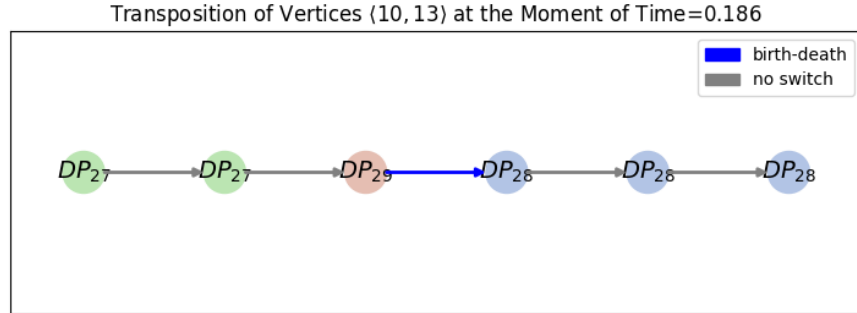


Figure 4: Reordering by transposition of vertices 10 and 13





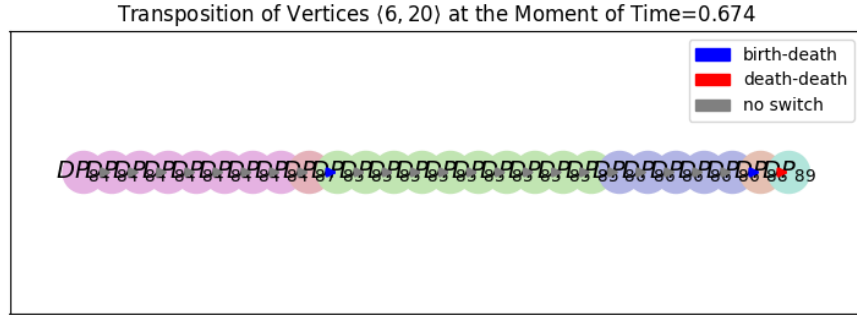


Figure 11: Reordering by transposition of vertices 6 and 20

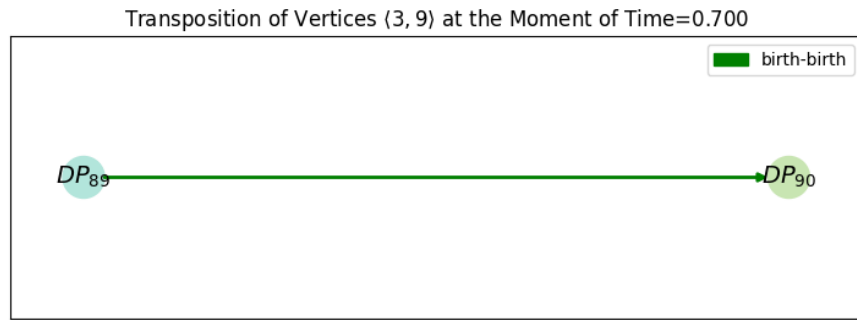


Figure 12: Reordering by transposition of vertices 3 and 9

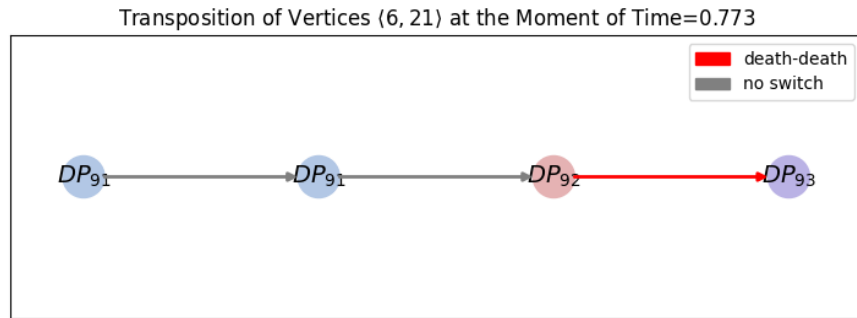


Figure 13: Reordering by transposition of vertices 6 and 21

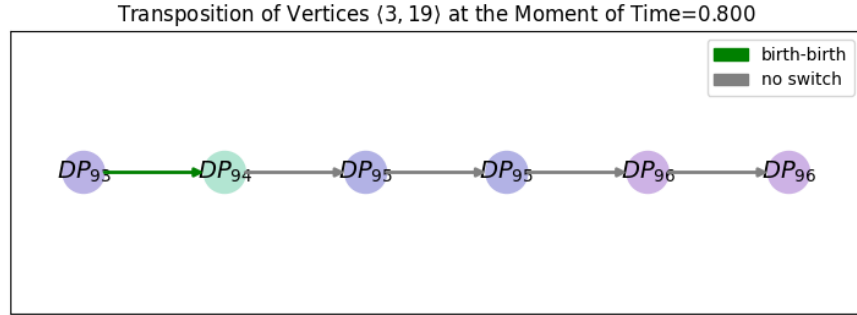


Figure 14: Reordering by transposition of vertices 3 and 19

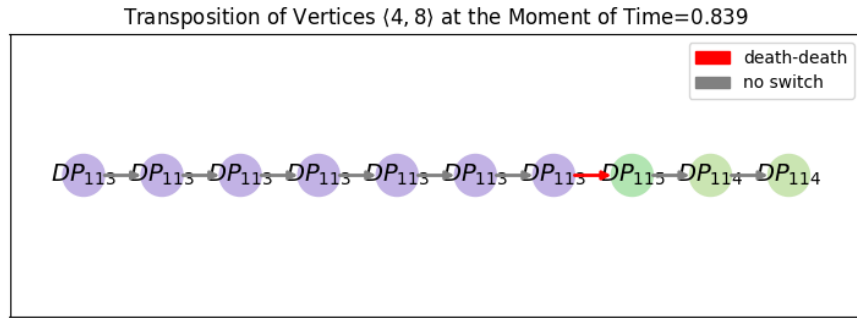


Figure 15: Reordering by transposition of vertices 4 and 8

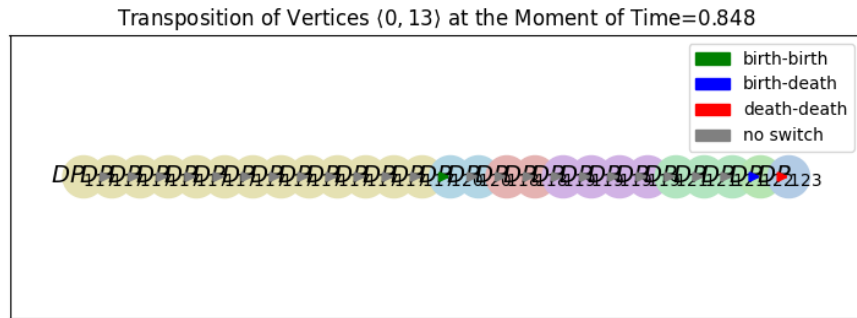
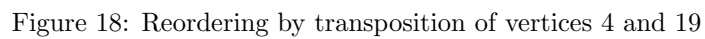
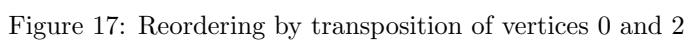


Figure 16: Reordering by transposition of vertices 0 and 13



## 4 Depth Posets

During the transposition we got 134 depth posets. In this section we listed few of them.

The depth poset corresponding the first filtration we can see in Figure 19, and the depth poset corresponding the last filtration we can see in Figure 20.

We use abbreviations for the scores:

Score	Abbreviation
number of components	C
number of nodes	Nod
number of edges in closure	EdC
number of edges in reduction	EdR
number of maximal nodes	MaxNod
number of minimal nodes	MinNod
height	H
width	W
cycles dimension	CD
minimum maximal chain	MMC
avarage maximal chain	AMC

In the table below we can see the statistics about depth poset scores.

	Figure	C	Nod	EdC	EdR	MaxNod	MinNod	H	W	CD	MMC	AMC
$DP_0$	19	32	65	45	33	32	55	3	55	0	1	1.69
$DP_1$		31	65	46	34	31	55	3	55	0	1	1.71
$DP_2$		31	65	49	34	31	55	4	55	0	1	1.75
$DP_3$		31	65	47	34	31	55	3	55	0	1	1.73
$DP_4$		31	65	48	34	31	55	4	55	0	1	1.73
$DP_5$		31	65	46	34	31	56	3	56	0	1	1.73
$DP_6$		30	65	50	35	30	56	3	56	0	1	1.77
$DP_7$		30	65	50	35	30	56	3	56	0	1	1.77
$DP_8$		30	65	52	35	30	55	4	55	0	1	1.76
$DP_9$		30	65	51	36	30	55	3	56	1	1	1.79
$DP_{10}$	22	30	65	50	35	30	56	3	56	0	1	1.77
$DP_{11}$		29	65	51	36	30	55	3	55	0	1	1.79
$DP_{12}$		29	65	51	36	29	55	3	55	0	1	1.80
$DP_{13}$		29	65	54	36	29	54	3	54	0	1	1.85
$DP_{14}$	27	29	65	55	36	29	53	3	53	0	1	1.85
$DP_{15}$		29	65	52	36	29	54	3	54	0	1	1.81
$DP_{16}$	27	29	65	54	36	29	54	3	54	0	1	1.85
$DP_{17}$		29	65	53	36	29	54	3	54	0	1	1.83
$DP_{18}$		29	65	51	36	29	55	3	55	0	1	1.80
$DP_{19}$		28	65	52	37	28	54	3	54	0	1	1.83

	Figure	C	Nod	EdC	EdR	MaxNod	MinNod	H	W	CD	MMC	AMC
$DP_{20}$		30	65	52	35	30	53	3	53	0	1	1.79
$DP_{21}$		30	65	52	35	30	53	3	53	0	1	1.79
$DP_{22}$		30	65	50	35	31	53	3	53	0	1	1.78
$DP_{23}$		31	65	49	34	31	54	3	54	0	1	1.76
$DP_{24}$		28	65	56	37	28	52	3	52	0	1	1.88
$DP_{25}$		29	65	55	36	29	53	3	53	0	1	1.85
$DP_{26}$		29	65	54	36	29	53	3	53	0	1	1.83
$DP_{27}$		31	65	50	34	31	53	3	53	0	1	1.75
$DP_{28}$		30	65	51	35	30	53	3	53	0	1	1.77
$DP_{29}$		30	65	51	35	30	52	3	52	0	1	1.79
$DP_{30}$		30	65	44	35	31	53	3	53	0	1	1.69
$DP_{31}$		30	65	45	36	31	53	3	53	1	1	1.69
$DP_{32}$		30	65	46	37	31	53	3	53	2	1	1.70
$DP_{33}$		29	65	45	36	30	53	3	53	0	1	1.70
$DP_{34}$	30	28	65	54	37	29	53	3	53	0	1	1.81
$DP_{35}$		29	65	53	36	30	53	3	53	0	1	1.80
$DP_{36}$		27	65	56	38	28	53	3	53	0	1	1.83
$DP_{37}$		29	65	53	36	30	53	3	53	0	1	1.80
$DP_{38}$		28	65	54	37	29	53	3	53	0	1	1.81
$DP_{39}$		28	65	54	37	28	53	3	53	0	1	1.81
$DP_{40}$		27	65	55	38	28	53	3	53	0	1	1.81
$DP_{41}$		28	65	55	37	28	52	3	52	0	1	1.83
$DP_{42}$		28	65	55	37	28	52	3	52	0	1	1.83
$DP_{43}$		29	65	54	36	29	52	3	52	0	1	1.81
$DP_{44}$		29	65	56	36	29	51	3	51	0	1	1.82
$DP_{45}$		29	65	56	36	29	51	3	51	0	1	1.82
$DP_{46}$		29	65	55	36	29	52	3	52	0	1	1.83
$DP_{47}$		27	65	56	38	27	51	3	51	0	1	1.86
$DP_{48}$		30	65	52	35	30	52	3	52	0	1	1.79
$DP_{49}$		30	65	52	35	30	52	3	52	0	1	1.79
$DP_{50}$		29	65	53	36	29	51	3	51	0	1	1.82
$DP_{51}$		29	65	53	36	29	51	3	51	0	1	1.82
$DP_{52}$		28	65	54	37	28	50	3	50	0	1	1.86
$DP_{53}$		28	65	54	37	28	50	3	50	0	1	1.86
$DP_{54}$		27	65	55	38	27	50	3	50	0	1	1.88
$DP_{55}$		27	65	56	38	27	49	3	49	0	1	1.90
$DP_{56}$		27	65	58	38	27	49	3	49	0	1	1.94
$DP_{57}$		28	65	54	37	28	49	3	49	0	1	1.88
$DP_{58}$		27	65	57	38	27	49	3	49	0	1	1.92
$DP_{59}$		27	65	58	38	27	49	3	49	0	1	1.94
$DP_{60}$		28	65	54	37	28	49	3	49	0	1	1.88
$DP_{61}$		28	65	54	37	28	49	3	49	0	1	1.88



	Figure	C	Nod	EdC	EdR	MaxNod	MinNod	H	W	CD	MMC	AMC
$DP_{62}$		27	65	57	38	27	49	3	49	0	1	1.92
$DP_{63}$		27	65	57	38	27	49	3	49	0	1	1.92
$DP_{64}$		28	65	54	37	28	49	3	49	0	1	1.88
$DP_{65}$		27	65	54	38	27	50	3	50	0	1	1.88
$DP_{66}$		27	65	55	38	27	49	3	49	0	1	1.90
$DP_{67}$		28	65	53	37	28	51	3	51	0	1	1.84
$DP_{68}$		27	65	54	38	27	50	3	50	0	1	1.88
$DP_{69}$		26	65	55	39	26	49	3	49	0	1	1.92
$DP_{70}$		27	65	54	38	27	50	3	50	0	1	1.88
$DP_{71}$		28	65	53	37	28	51	3	51	0	1	1.84
$DP_{72}$		27	65	54	38	27	50	3	50	0	1	1.88
$DP_{73}$		27	65	54	38	27	50	3	50	0	1	1.88
$DP_{74}$		28	65	53	37	28	51	3	51	0	1	1.84
$DP_{75}$		28	65	53	37	28	51	3	51	0	1	1.84
$DP_{76}$		27	65	54	38	27	50	3	50	0	1	1.88
$DP_{77}$		28	65	53	37	28	51	3	51	0	1	1.84
$DP_{78}$		29	65	52	36	29	51	3	51	0	1	1.82
$DP_{79}$		30	65	51	35	30	52	3	52	0	1	1.79
$DP_{80}$		29	65	52	36	30	51	3	52	0	1	1.81
$DP_{81}$		29	65	53	36	29	51	3	51	0	1	1.82
$DP_{82}$		30	65	52	35	30	51	3	51	0	1	1.80
$DP_{83}$		29	65	53	36	29	50	3	50	0	1	1.84
$DP_{84}$		29	65	53	36	29	50	3	50	0	1	1.84
$DP_{85}$		29	65	53	36	29	50	3	50	0	1	1.84
$DP_{86}$		28	65	54	37	28	49	3	49	0	1	1.88
$DP_{87}$	28	28	65	54	37	28	49	3	49	0	1	1.88
$DP_{88}$		26	65	56	39	26	49	3	49	0	1	1.92
$DP_{89}$		26	65	56	39	26	49	3	49	0	1	1.92
$DP_{90}$		26	65	56	39	26	49	3	49	0	1	1.92
$DP_{91}$		25	65	58	40	25	49	3	49	0	1	1.94
$DP_{92}$	21	24	65	59	41	24	48	3	48	0	1	1.98
$DP_{93}$		24	65	59	41	24	48	3	48	0	1	1.98
$DP_{94}$		24	65	59	41	24	48	3	48	0	1	1.98
$DP_{95}$		24	65	58	41	24	49	3	49	0	1	1.96
$DP_{96}$	24	25	65	57	40	25	49	3	49	0	1	1.94
$DP_{97}$		24	65	61	41	24	49	3	49	0	1	2.00
$DP_{98}$		24	65	58	41	25	49	3	49	0	1	1.94
$DP_{99}$		24	65	59	42	25	49	3	49	1	1	1.94
$DP_{100}$		24	65	61	41	24	49	3	49	0	1	2.00
$DP_{101}$		24	65	62	41	24	49	3	49	0	1	2.02
$DP_{102}$		24	65	67	41	24	49	3	49	0	1	2.10
$DP_{103}$		24	65	66	41	24	49	3	49	0	1	2.08

	Figure	C	Nod	EdC	EdR	MaxNod	MinNod	H	W	CD	MMC	AMC
$DP_{104}$		24	65	63	41	24	49	3	49	0	1	2.04
$DP_{105}$		24	65	62	41	24	49	3	49	0	1	2.02
$DP_{106}$		24	65	62	41	24	49	3	49	0	1	2.02
$DP_{107}$		24	65	65	41	24	49	3	49	0	1	2.06
$DP_{108}$		24	65	63	41	24	49	3	49	0	1	2.04
$DP_{109}$		25	65	60	40	25	49	3	49	0	1	2.00
$DP_{110}$		24	65	62	41	24	49	3	49	0	1	2.02
$DP_{111}$		23	65	63	42	23	48	3	48	0	1	2.06
$DP_{112}$		23	65	65	44	24	49	3	49	2	1	2.04
$DP_{113}$		23	65	65	44	24	49	3	49	2	1	2.04
$DP_{114}$		23	65	65	44	24	49	3	49	2	1	2.04
$DP_{115}$		23	65	66	44	24	49	3	49	2	1	2.06
$DP_{116}$		23	65	67	45	24	49	3	49	3	1	2.06
$DP_{117}$		23	65	70	42	24	49	3	49	0	1	2.16
$DP_{118}$		22	65	71	43	23	49	3	49	0	1	2.18
$DP_{119}$		21	65	72	44	22	49	3	49	0	1	2.20
$DP_{120}$		23	65	70	42	24	49	3	49	0	1	2.16
$DP_{121}$	23	21	65	73	44	22	48	3	48	0	1	2.22
$DP_{122}$		21	65	74	44	22	48	3	48	0	1	2.24
$DP_{123}$		21	65	74	44	22	48	3	48	0	1	2.24
$DP_{124}$		21	65	73	44	22	49	3	49	0	1	2.22
$DP_{125}$		20	65	77	45	21	49	3	49	0	1	2.27
$DP_{126}$		20	65	68	45	21	50	3	50	0	1	2.14
$DP_{127}$		20	65	69	45	21	49	3	49	0	1	2.14
$DP_{128}$	25	20	65	70	45	21	49	3	49	0	1	2.16
$DP_{129}$	29	20	65	77	45	21	49	3	49	0	1	2.27
$DP_{130}$		19	65	78	46	20	48	3	48	0	1	2.31
$DP_{131}$	26	20	65	84	47	20	50	3	50	2	1	2.40
$DP_{132}$		20	65	82	47	20	50	3	50	2	1	2.36
$DP_{133}$	20	19	65	83	48	20	50	3	50	2	1	2.35

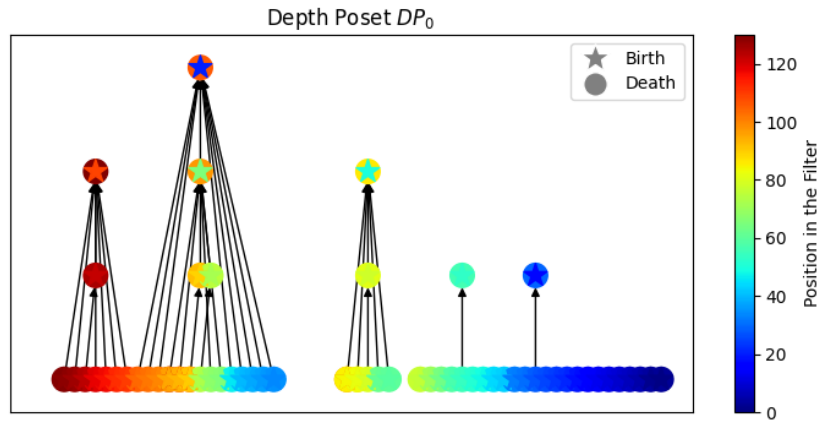


Figure 19: Depth Poset  $DP_0$

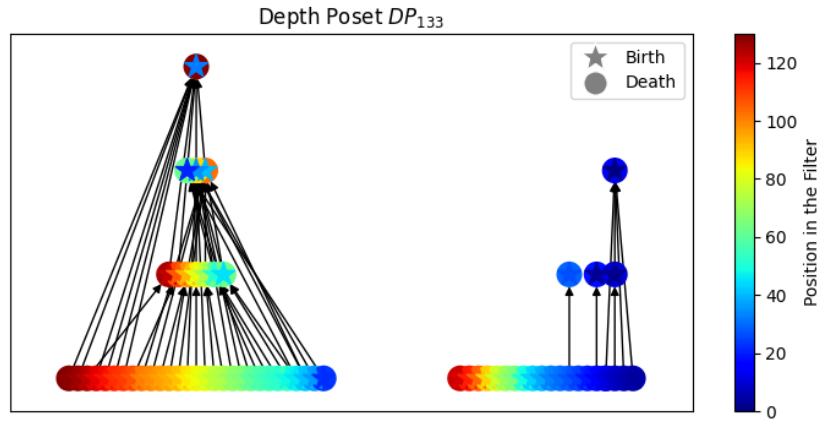


Figure 20: Depth Poset  $DP_{133}$

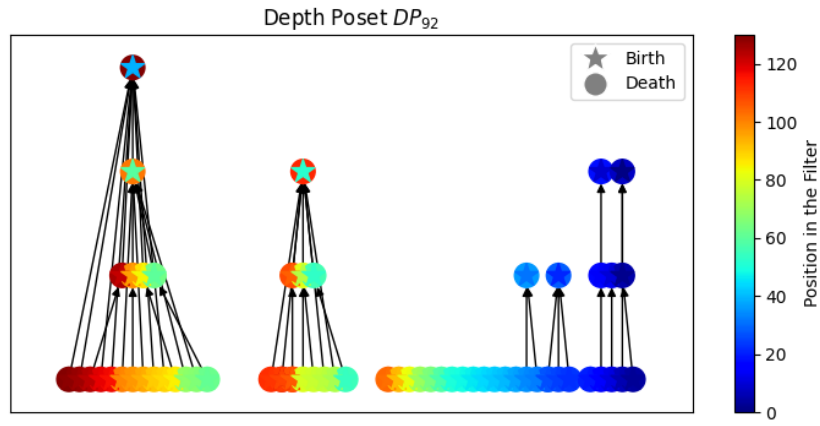


Figure 21: Depth Poset  $DP_{92}$

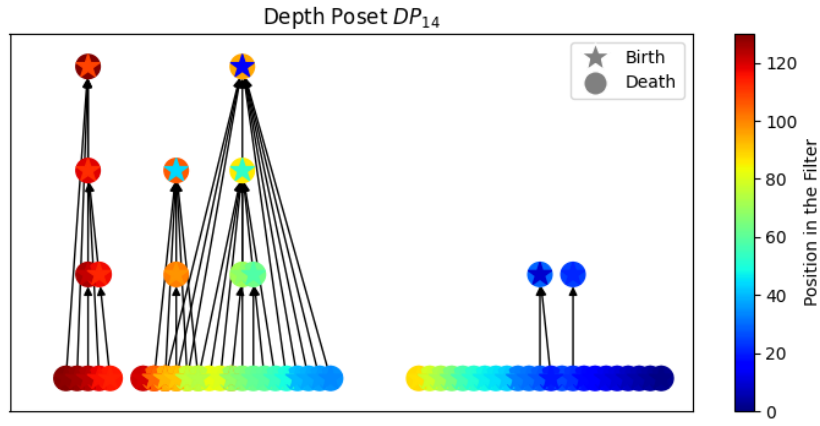


Figure 22: Depth Poset  $DP_{14}$

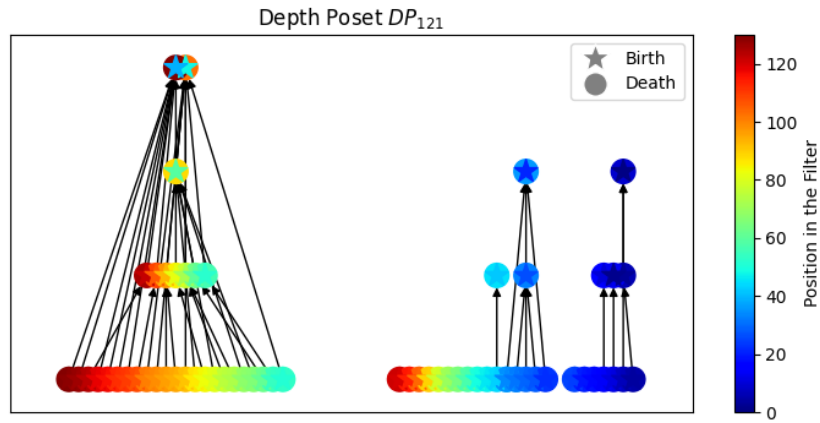


Figure 23: Depth Poset  $DP_{121}$

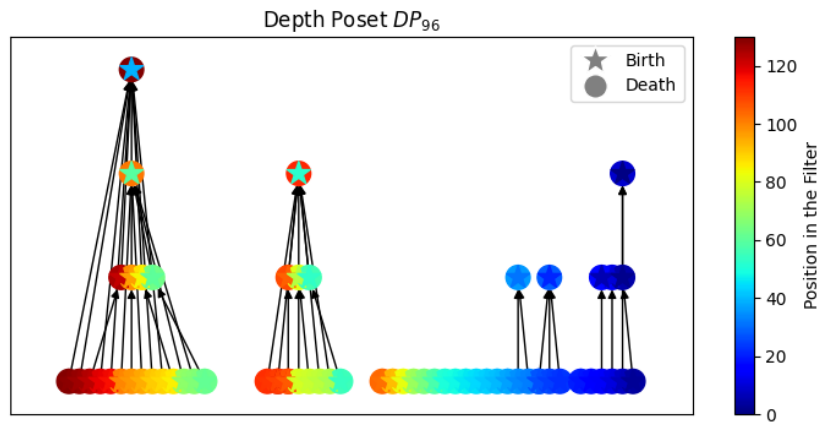


Figure 24: Depth Poset  $DP_{96}$

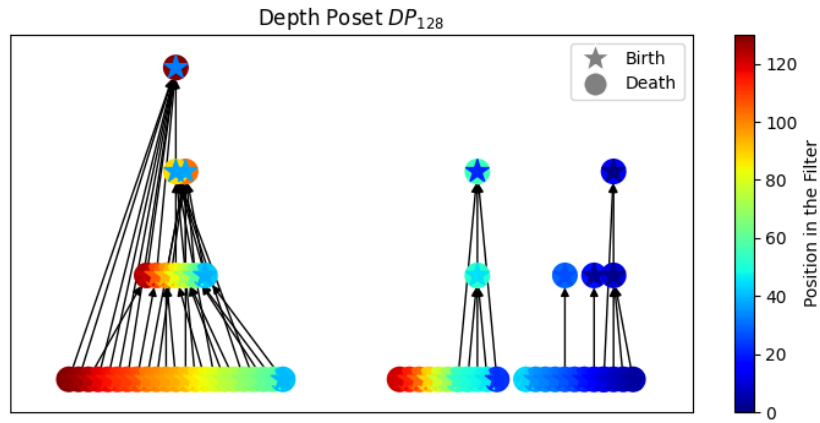


Figure 25: Depth Poset  $DP_{128}$

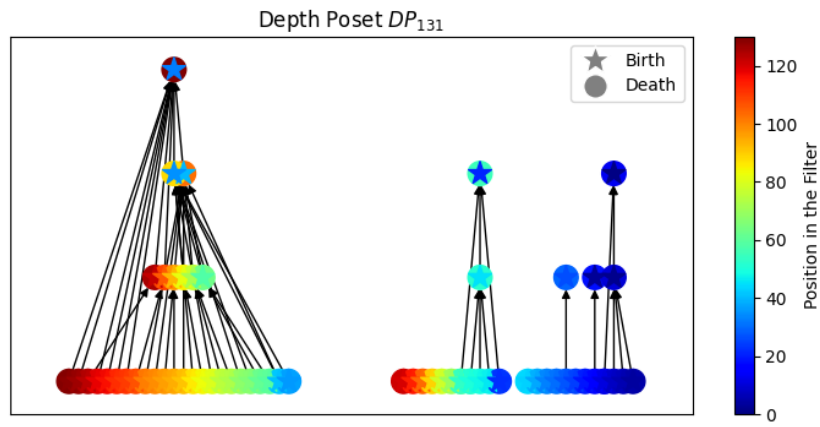


Figure 26: Depth Poset  $DP_{131}$

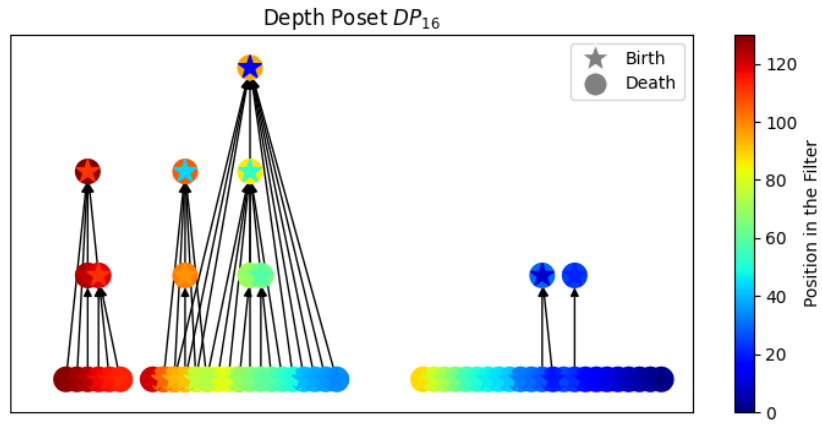


Figure 27: Depth Poset  $DP_{16}$

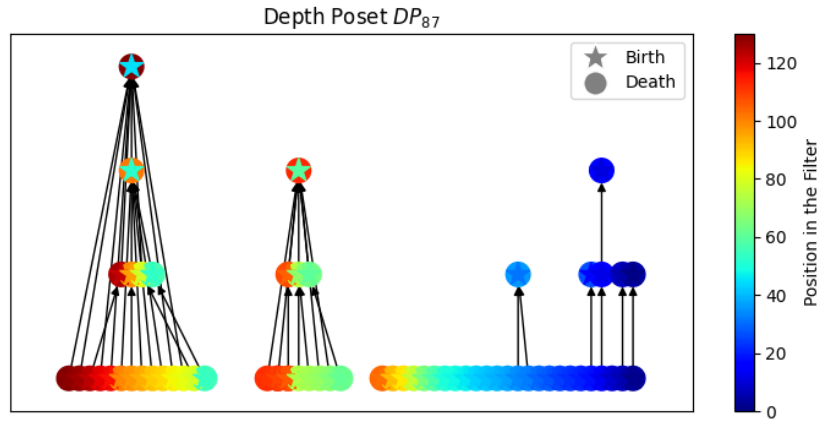


Figure 28: Depth Poset  $DP_{87}$

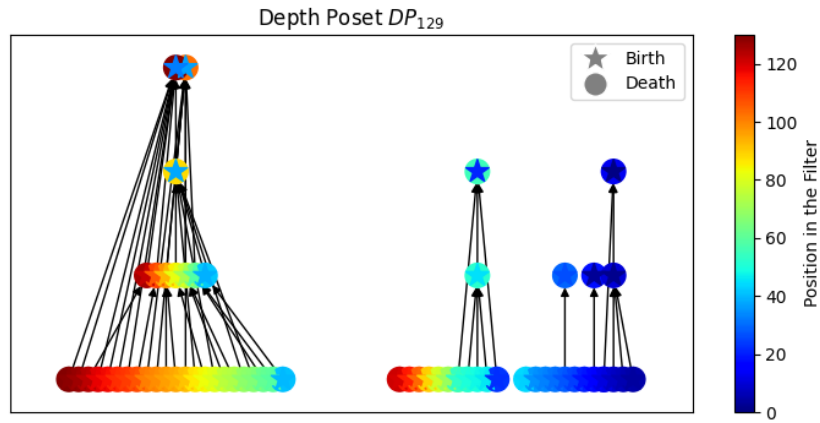


Figure 29: Depth Poset  $DP_{129}$

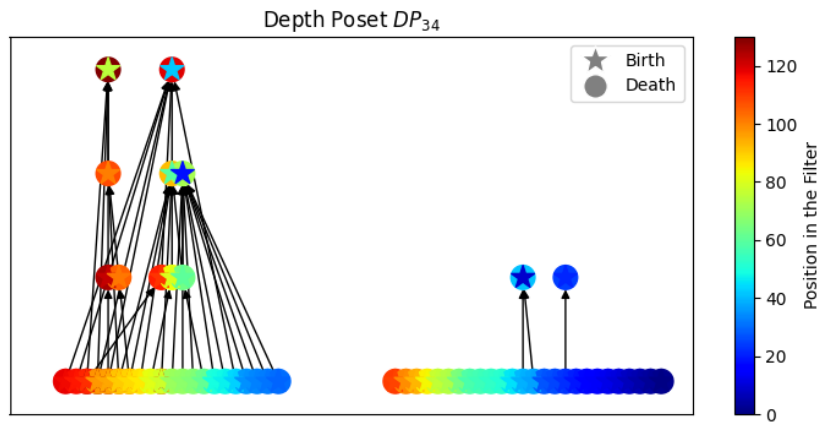


Figure 30: Depth Poset  $DP_{34}$