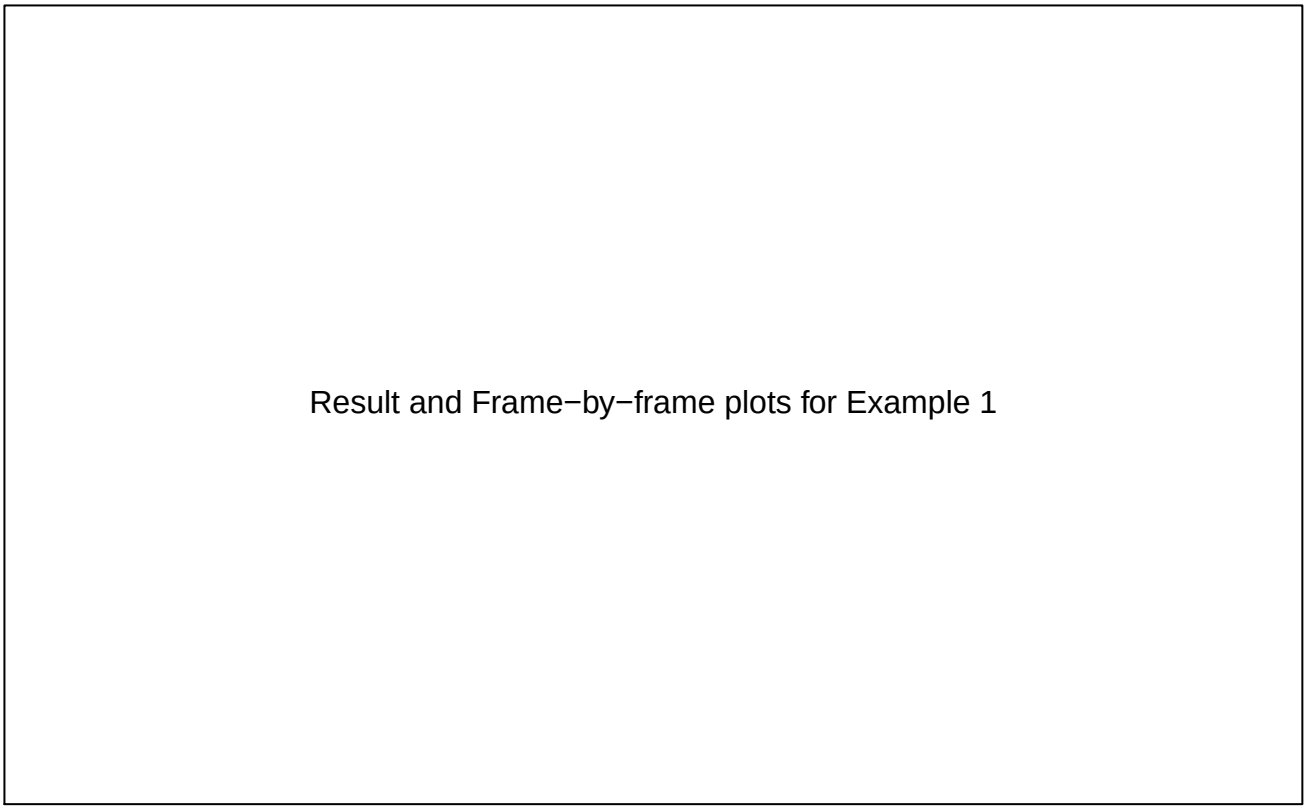
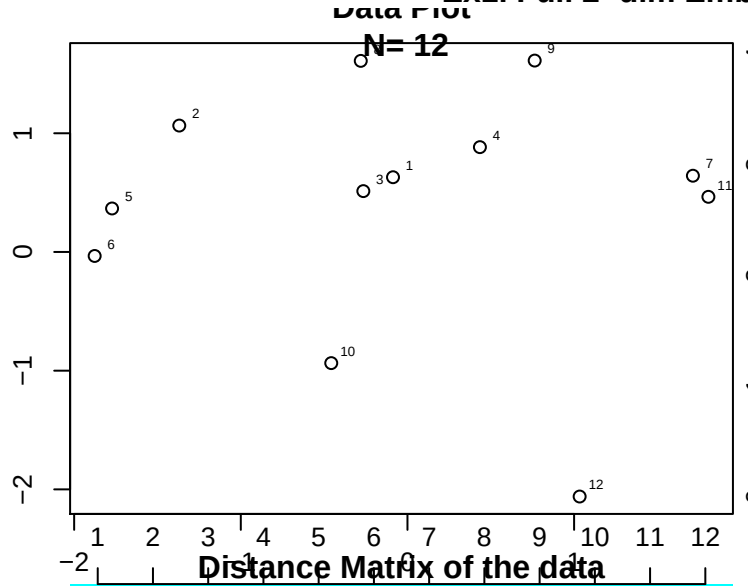
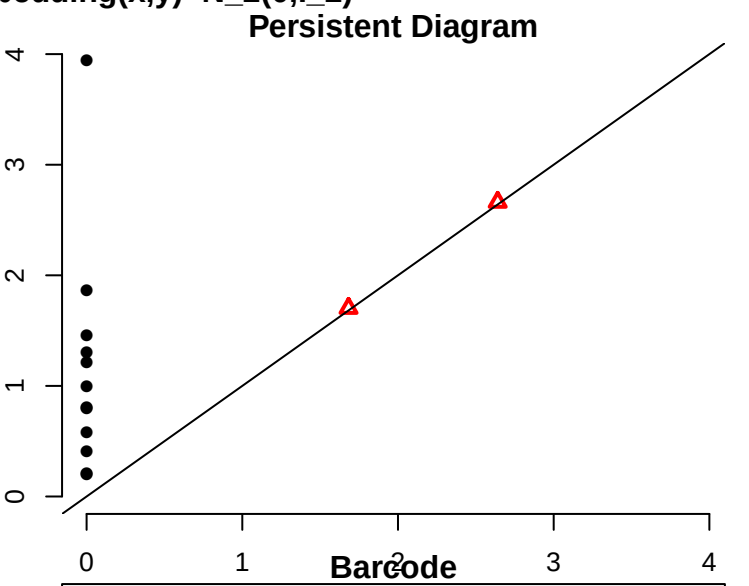

Result and Frame−by−frame plots for Example 1

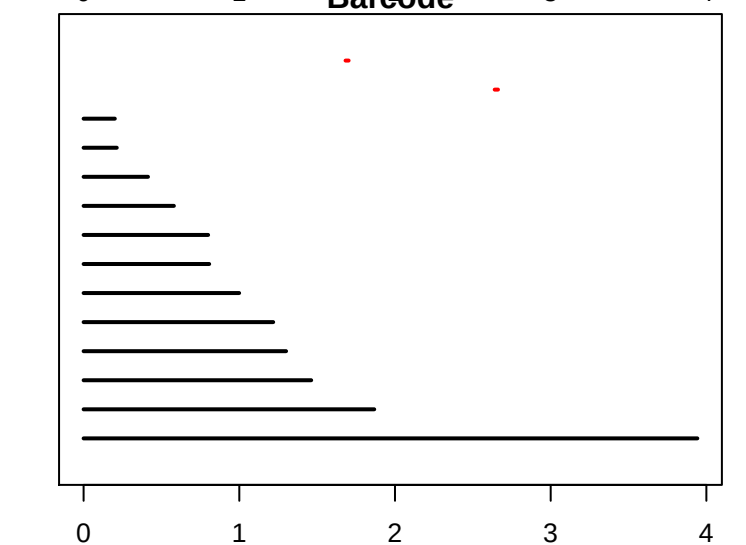
Ex1. Full 2−dim Embedding(x,y)~N_2(0,I_2)



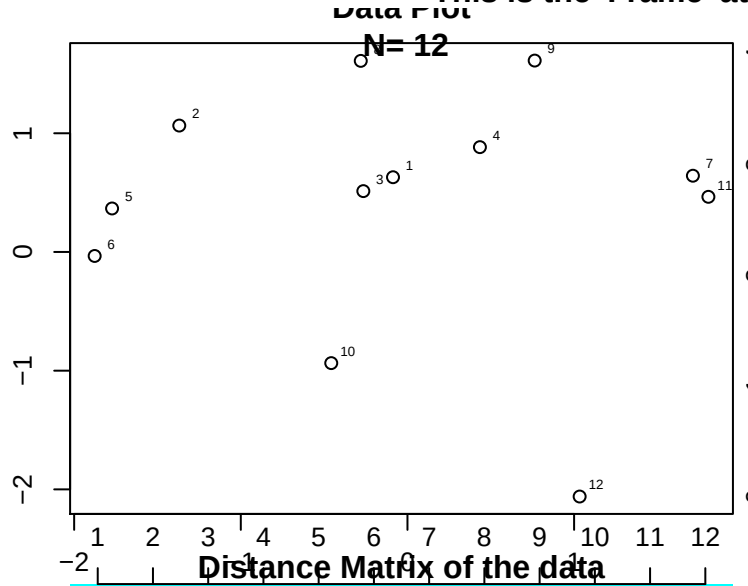


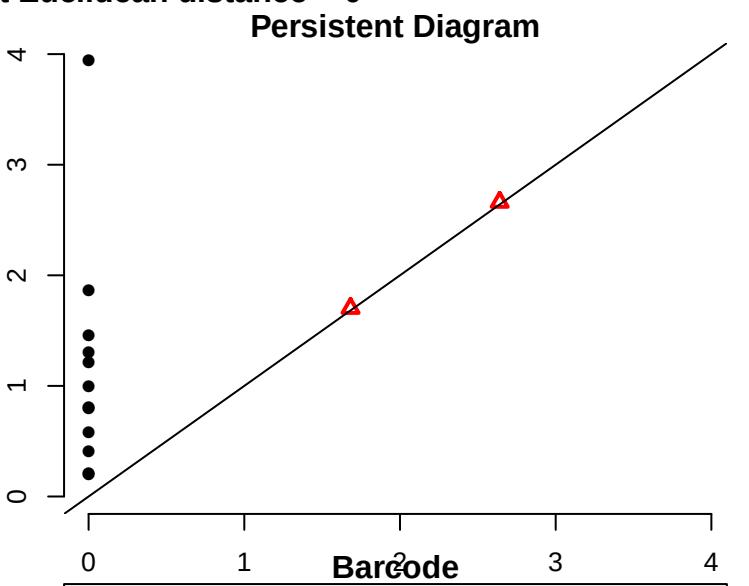
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
9	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
10	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
11	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
12	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000



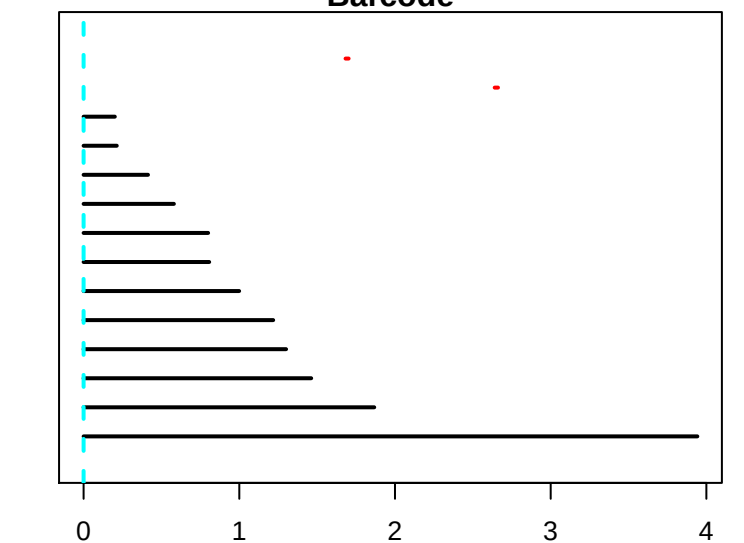
This is the 'Frame' at Euclidean distance = 0

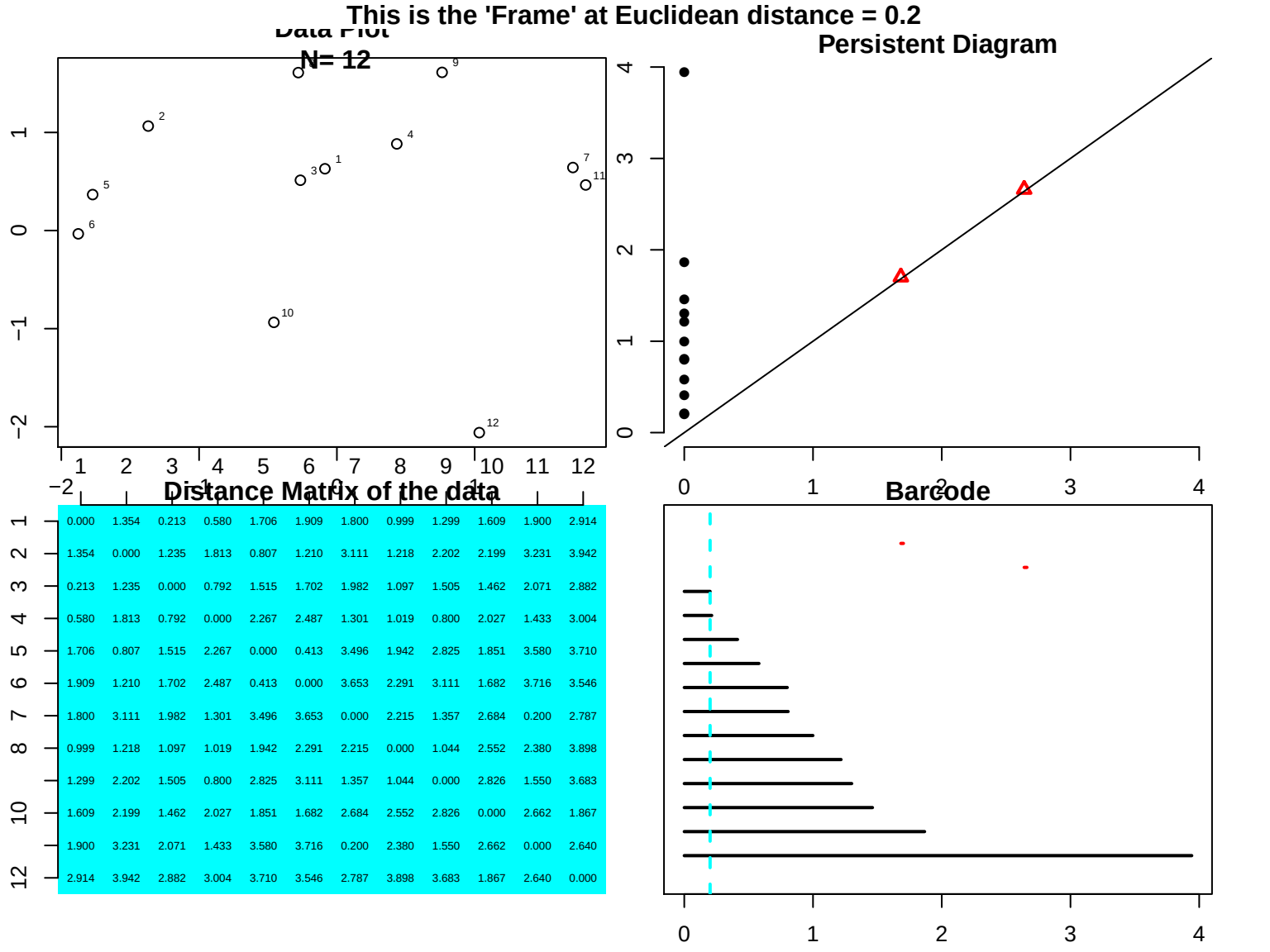


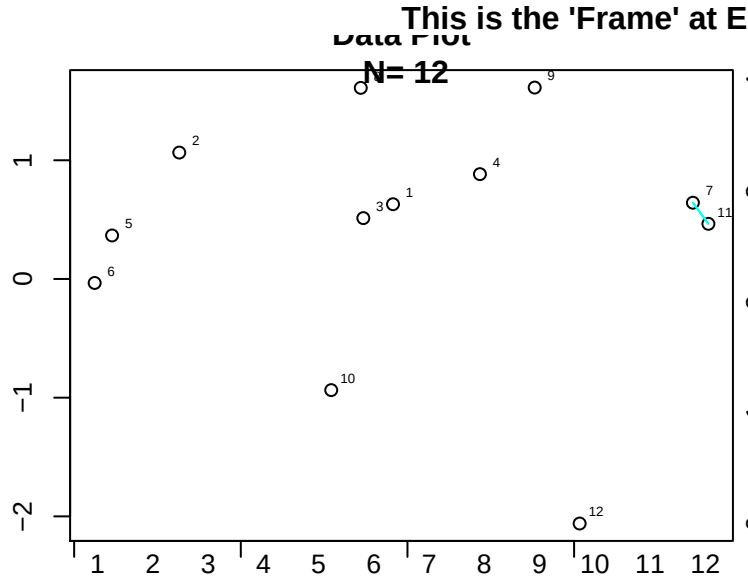


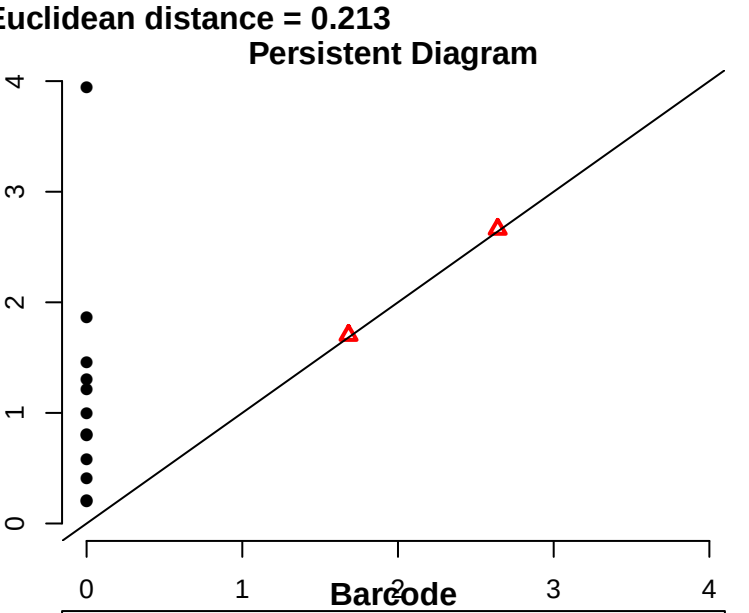
Distance Matrix of the data

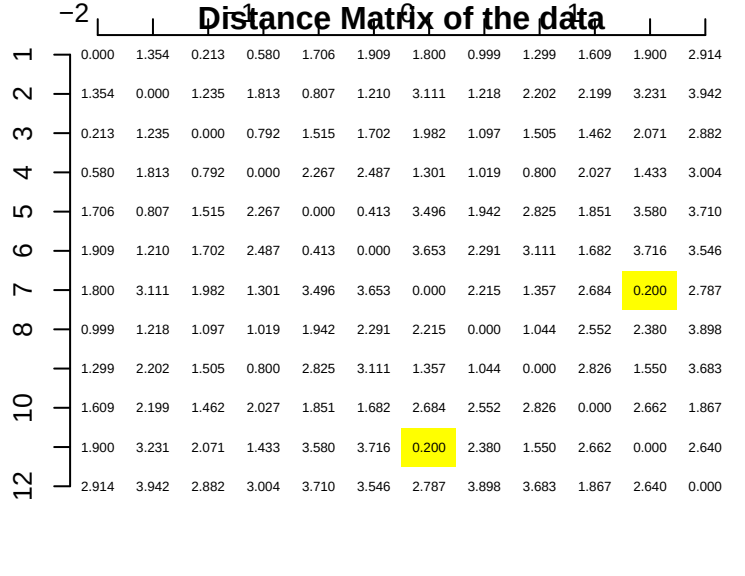
1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
10	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
12	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000



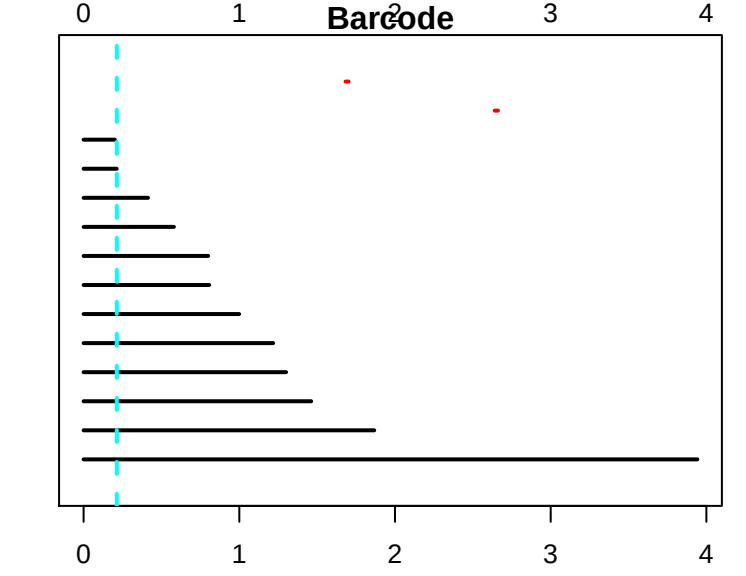

This is the 'Frame' at Euclidean distance = 0.2
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode

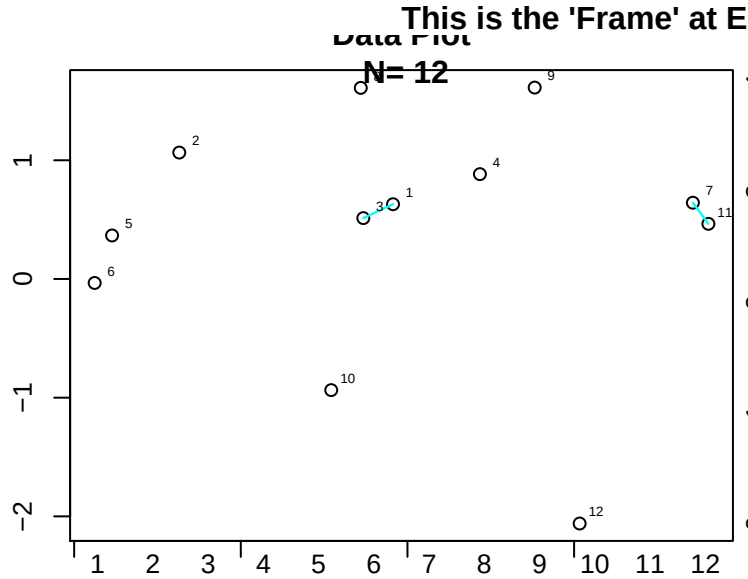


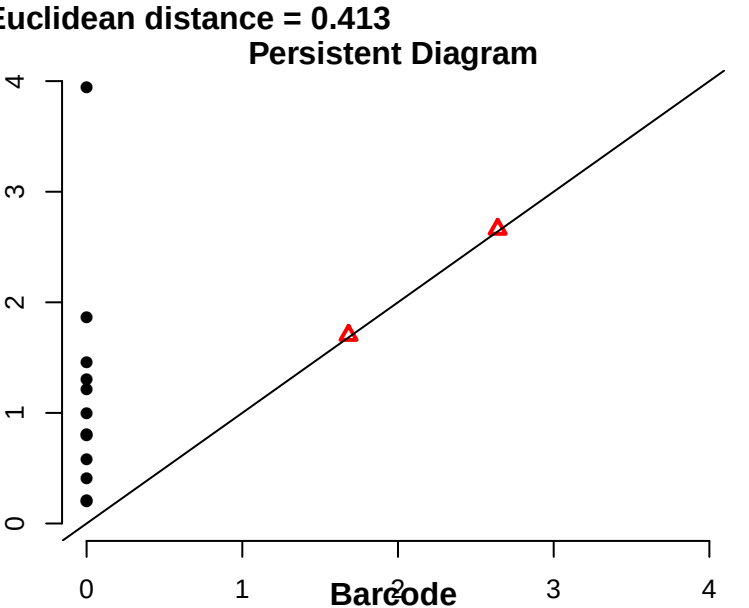




	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
9	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
10	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
11	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
12	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000

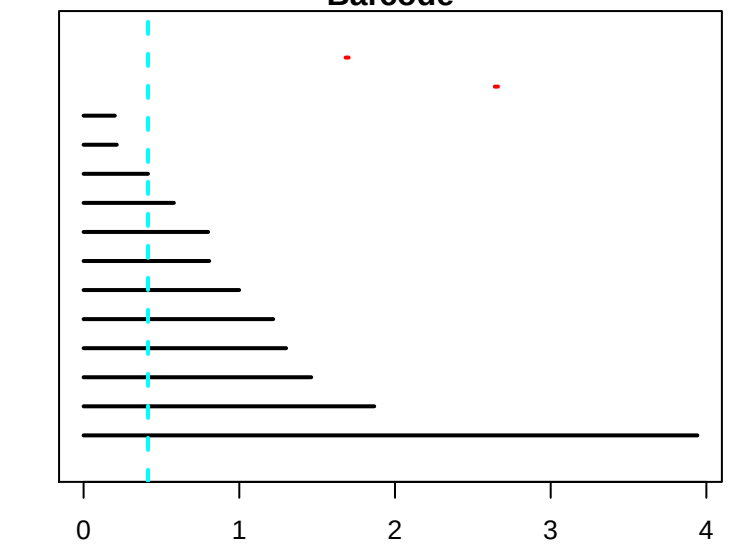




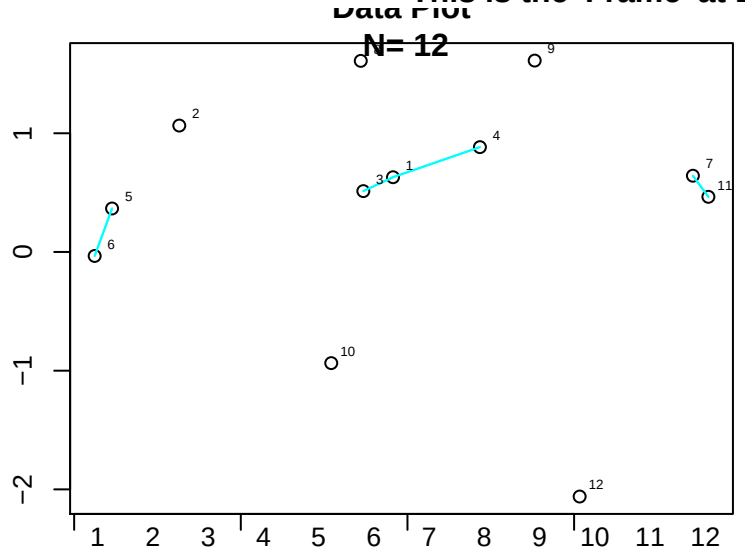


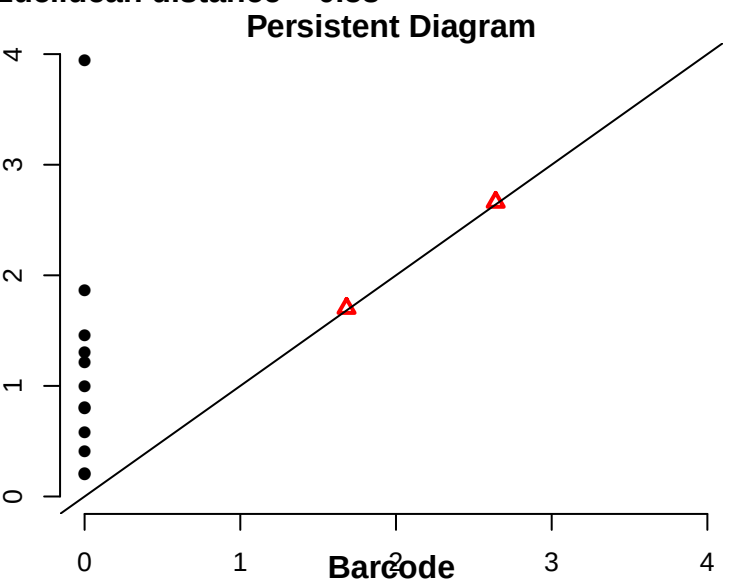
Distance Matrix of the data

1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
10	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
12	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000



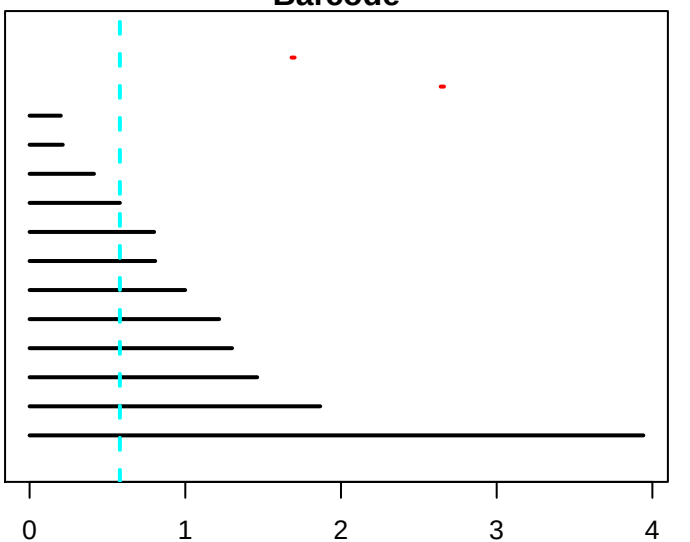
This is the 'Frame' at Euclidean distance = 0.58

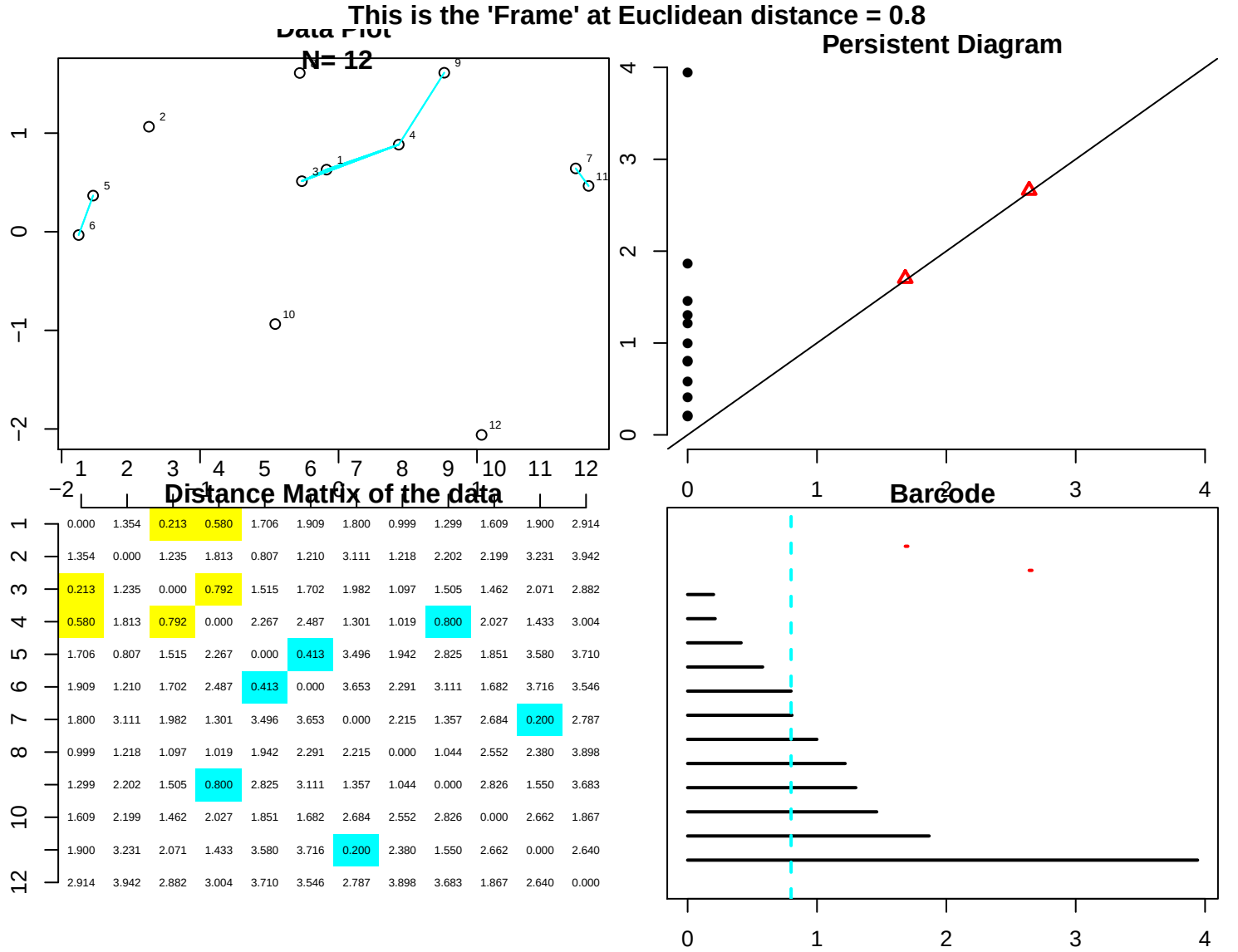


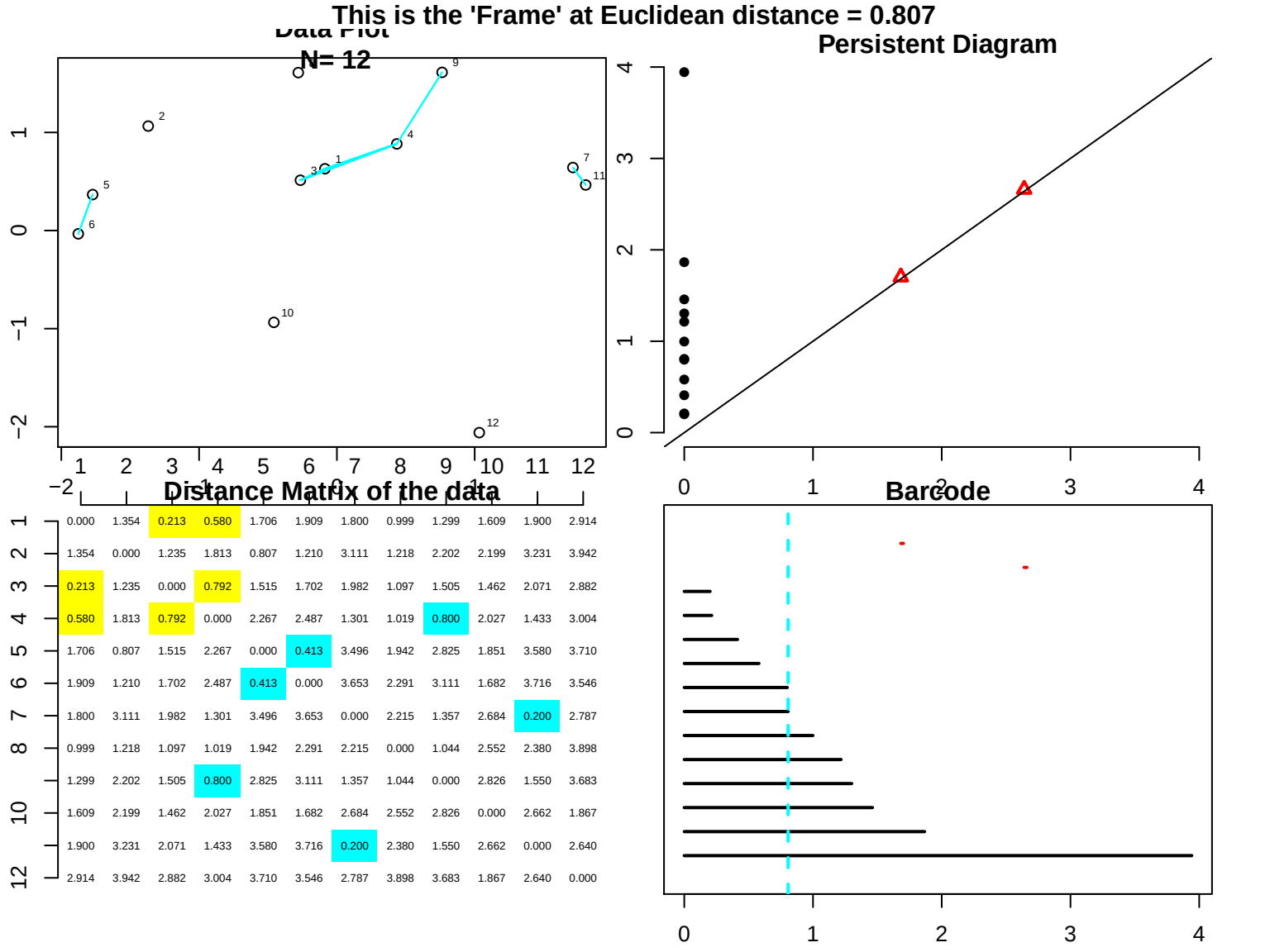


Distance Matrix of the data

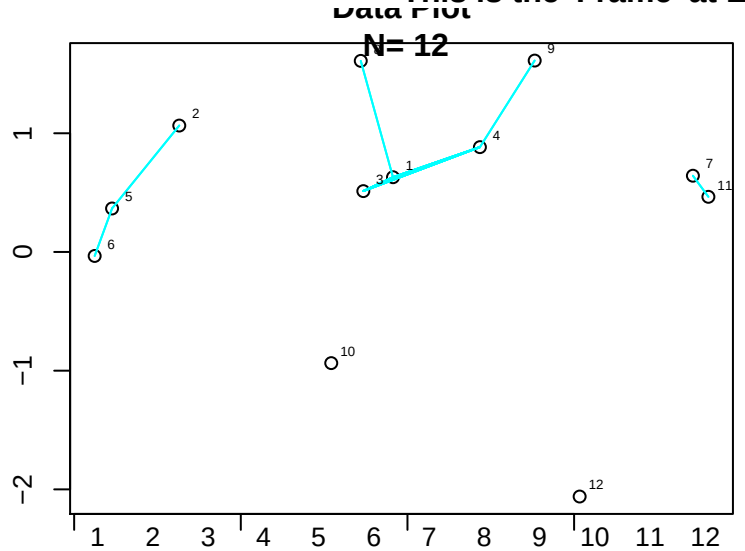
	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
9	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
10	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
11	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
12	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000

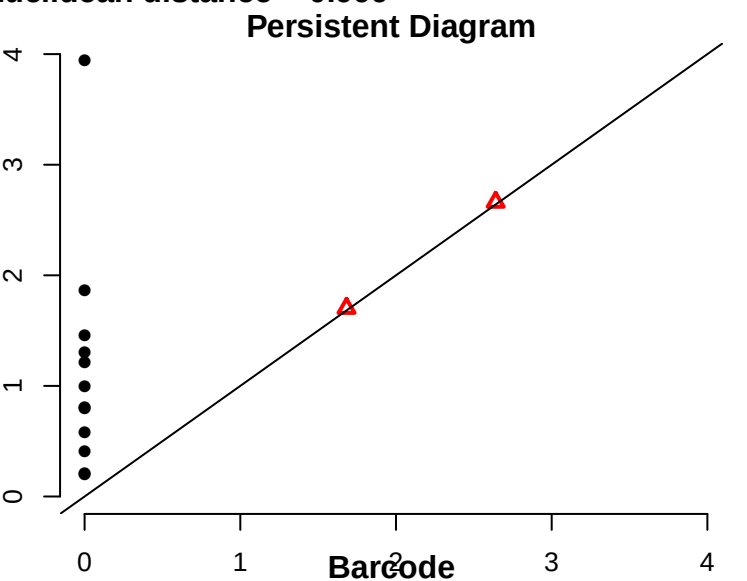


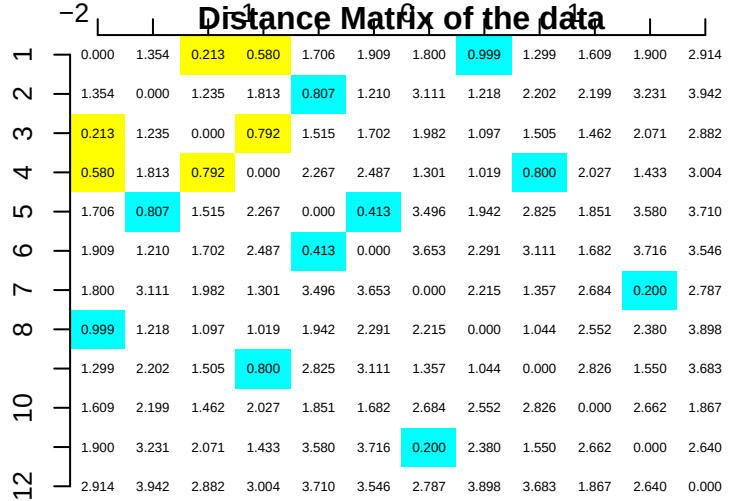

This is the 'Frame' at Euclidean distance = 0.8
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode

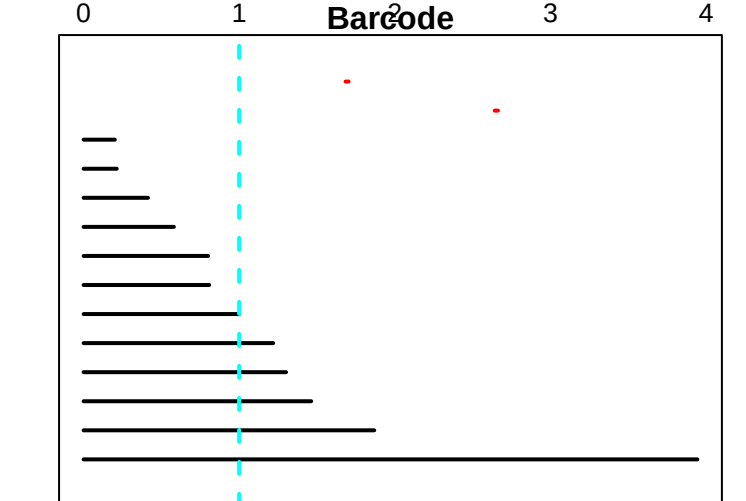

This is the 'Frame' at Euclidean distance = 0.807
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode

This is the 'Frame' at Euclidean distance = 0.999

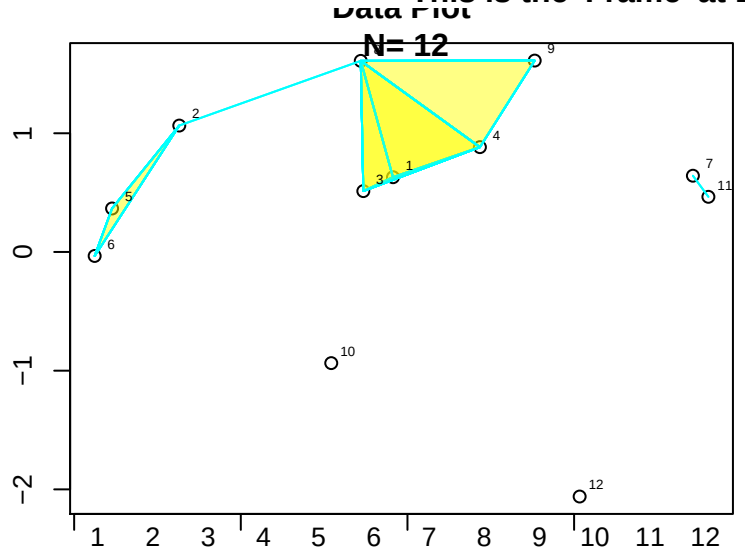


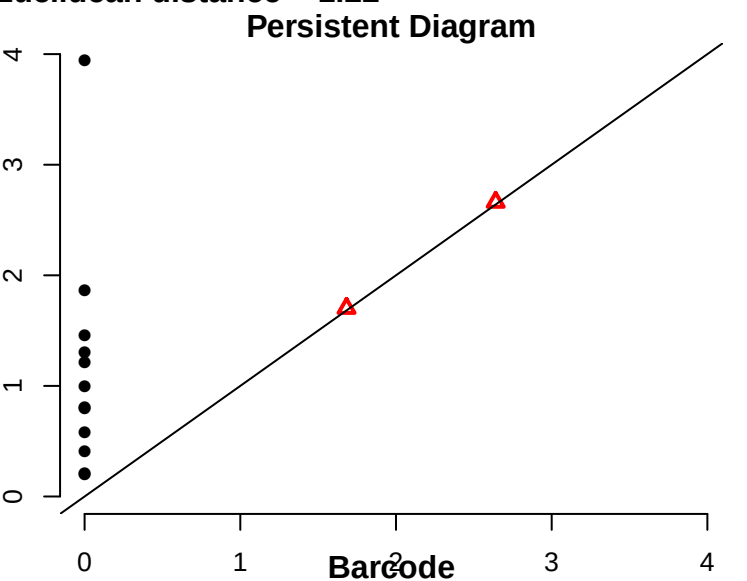






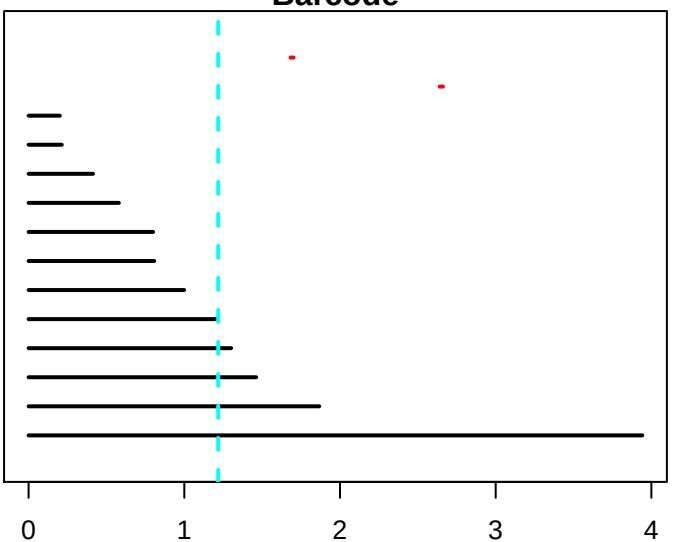
This is the 'Frame' at Euclidean distance = 1.22



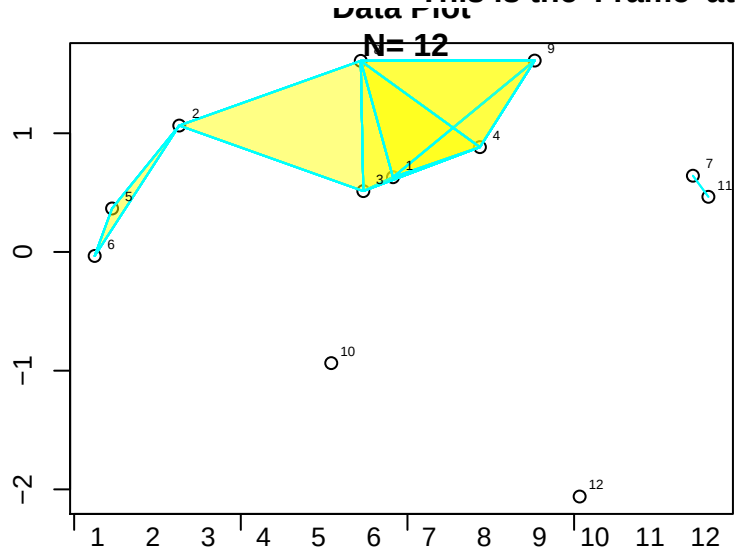


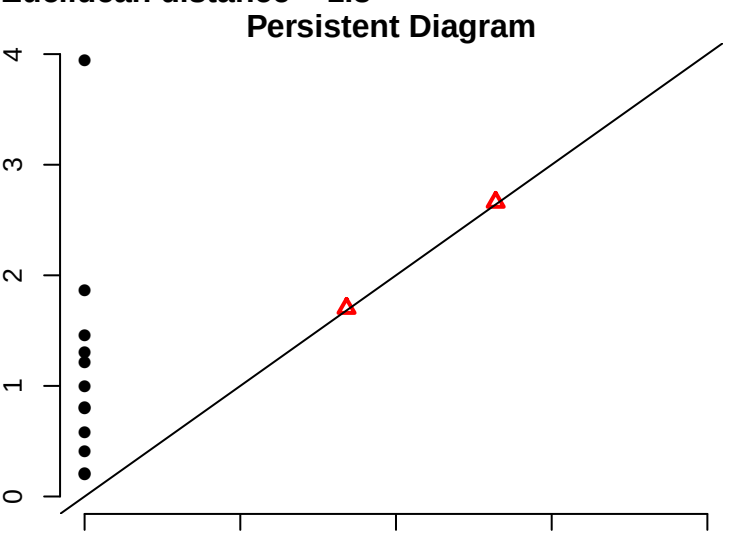
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
9	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
10	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
11	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
12	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000



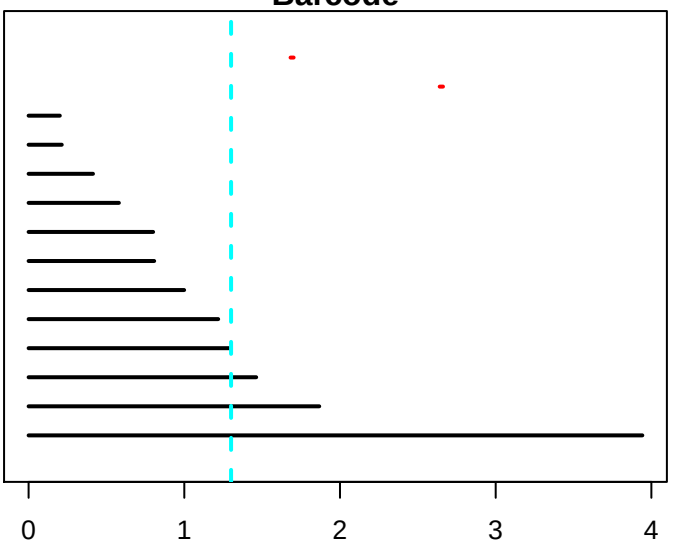
This is the 'Frame' at Euclidean distance = 1.3



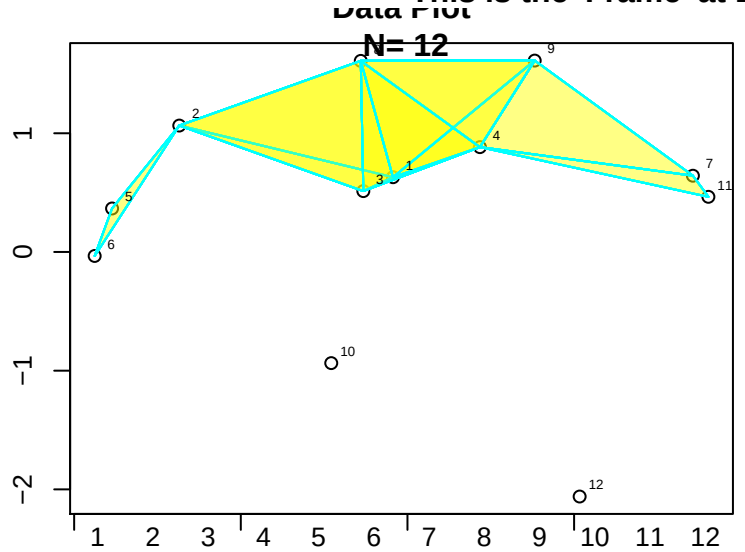


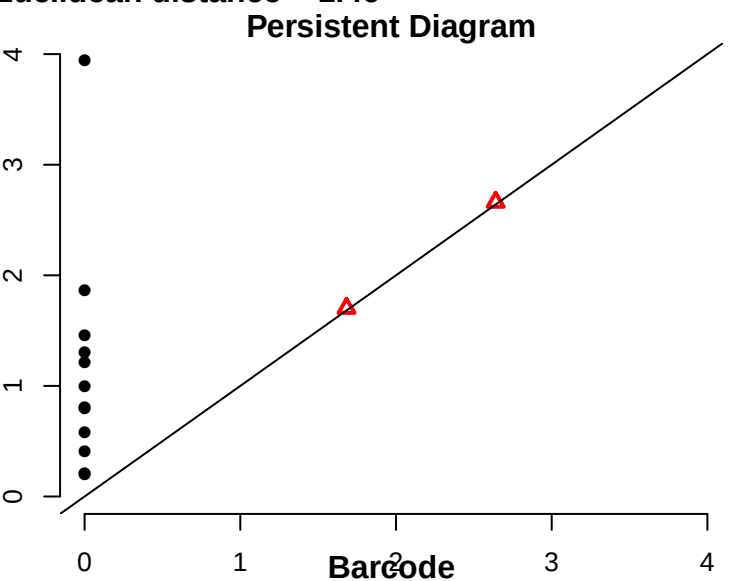
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
9	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
10	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
11	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
12	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000



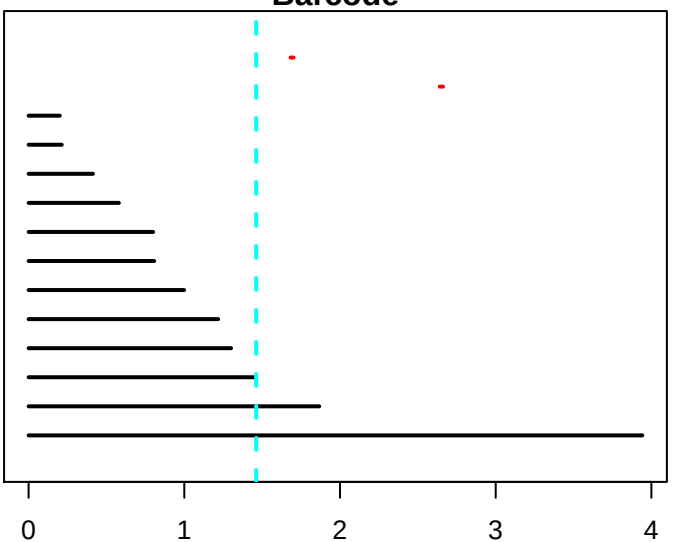
This is the 'Frame' at Euclidean distance = 1.46



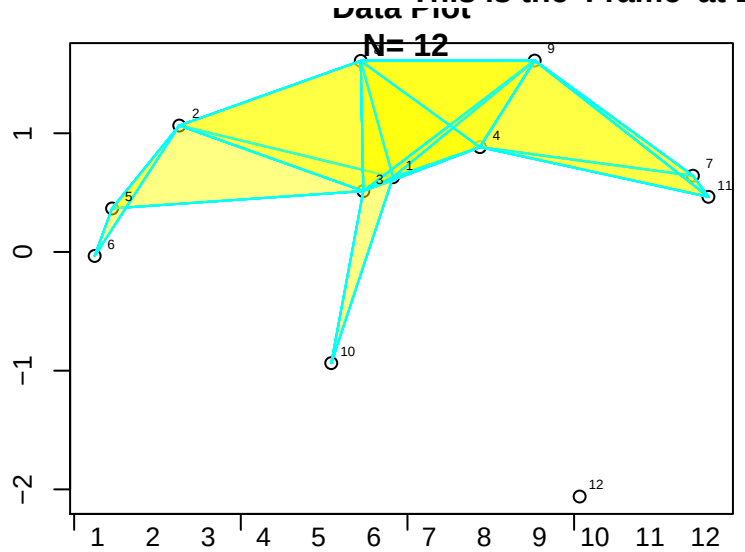


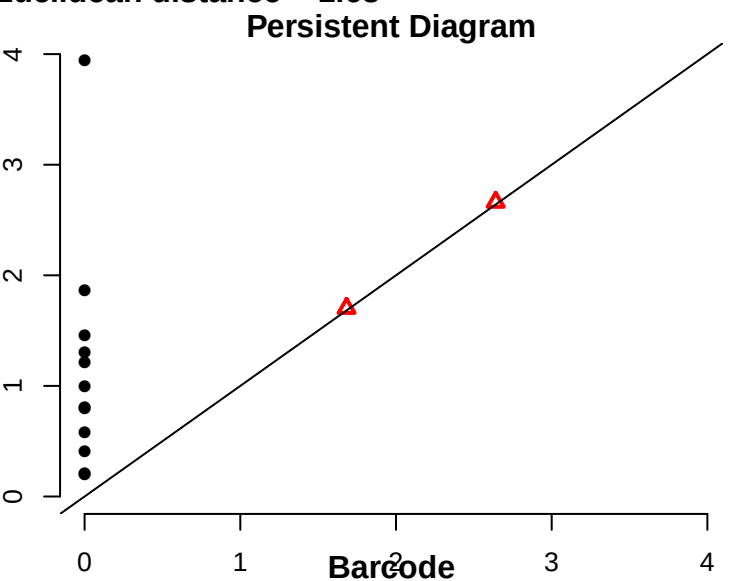
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
9	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
10	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
11	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
12	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000



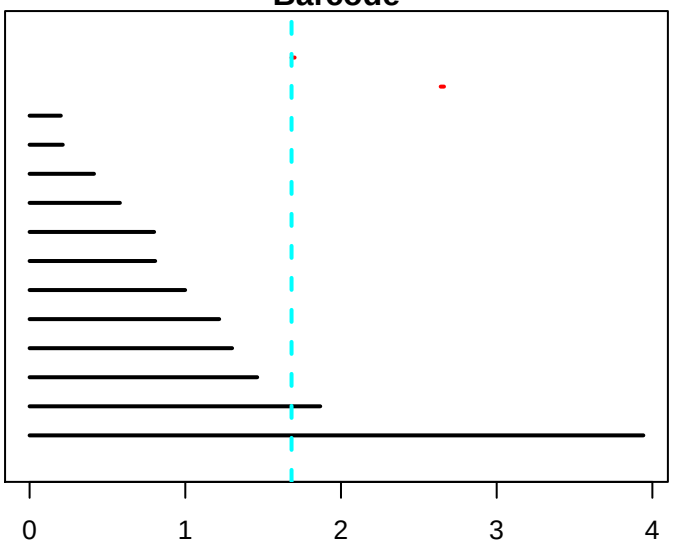
This is the 'Frame' at Euclidean distance = 1.68



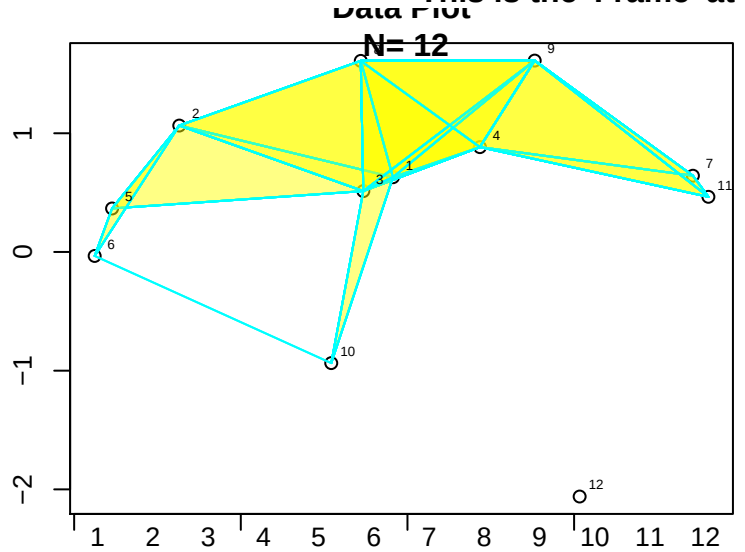


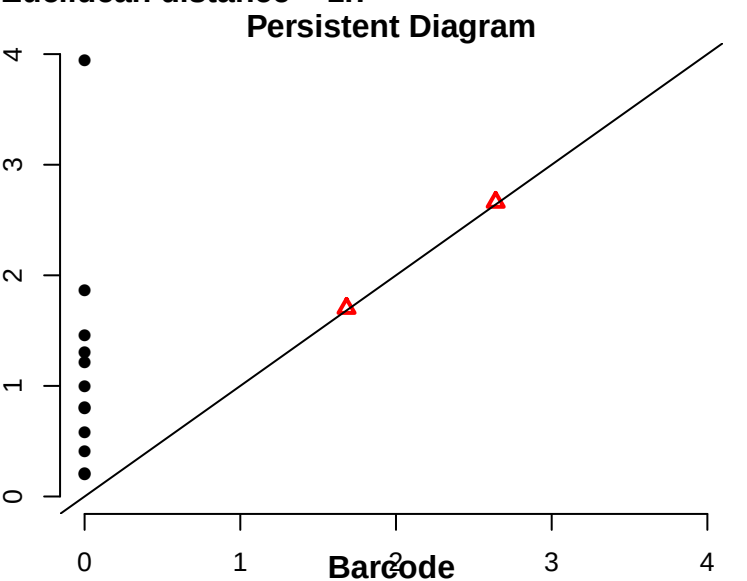
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
10	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
12	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000



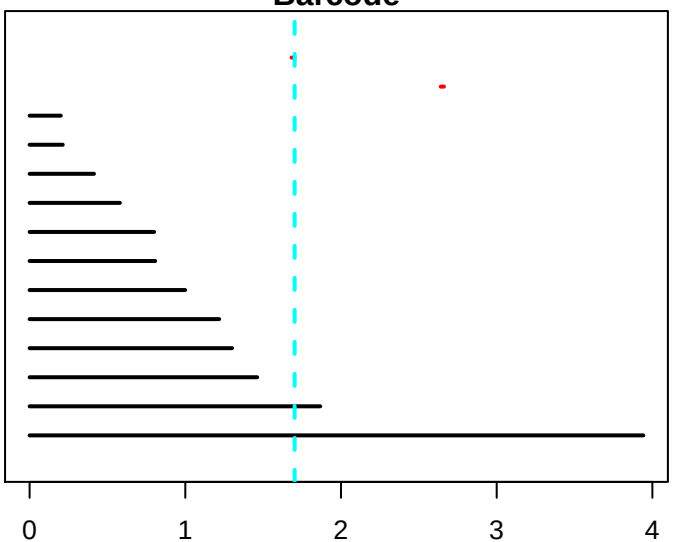
This is the 'Frame' at Euclidean distance = 1.7



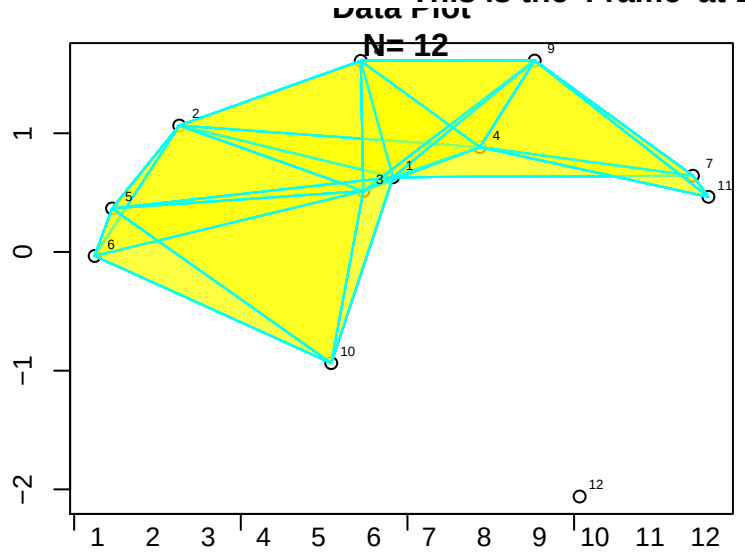


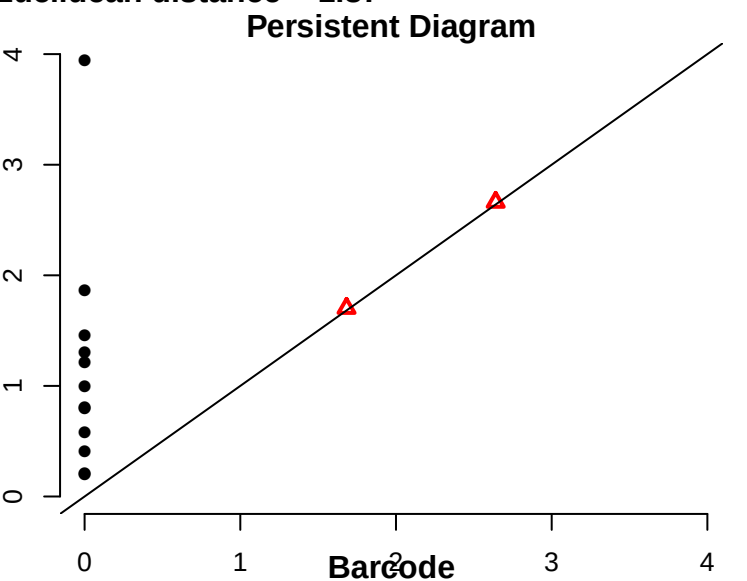
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
10	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
12	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000



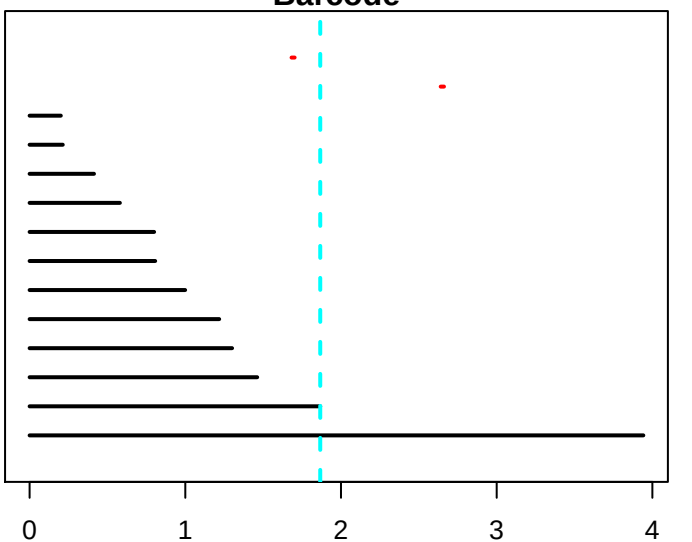
This is the 'Frame' at Euclidean distance = 1.87



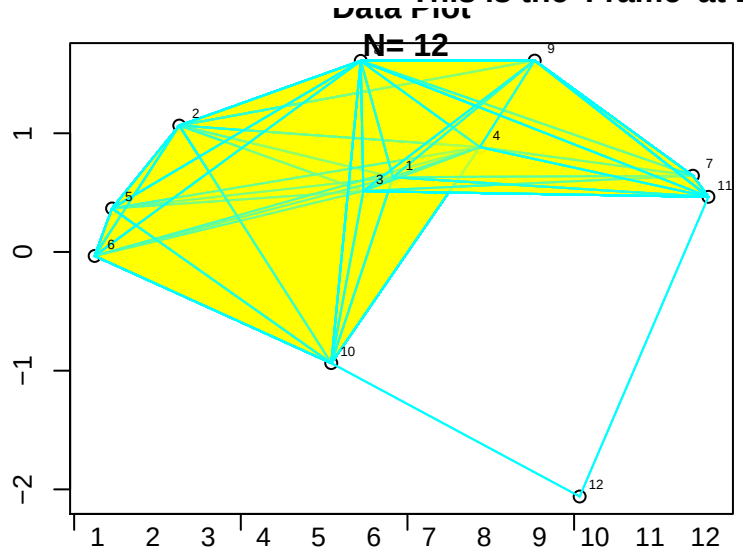


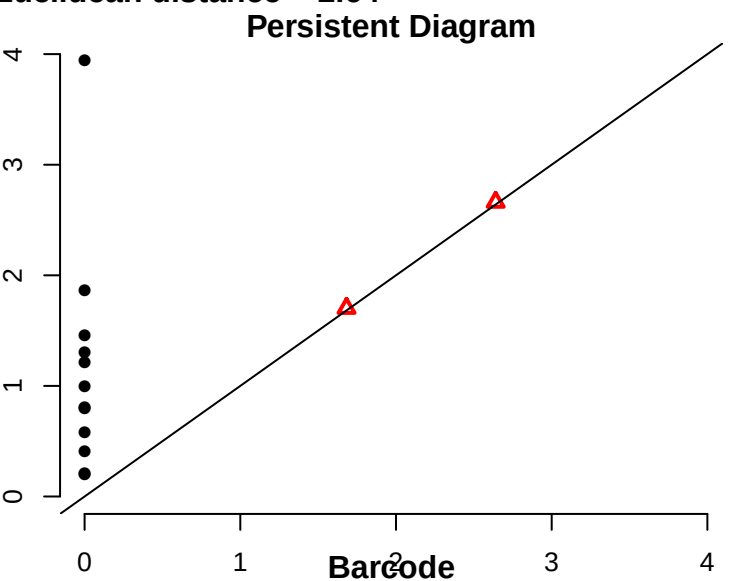
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
9	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
10	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
11	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
12	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000



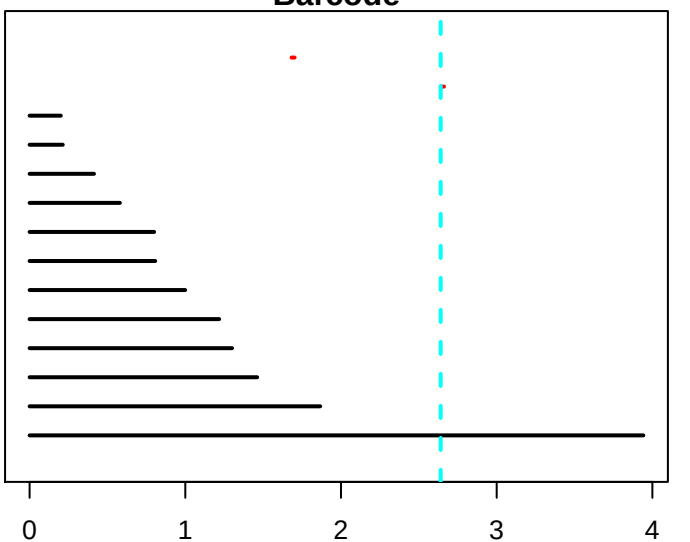
This is the 'Frame' at Euclidean distance = 2.64

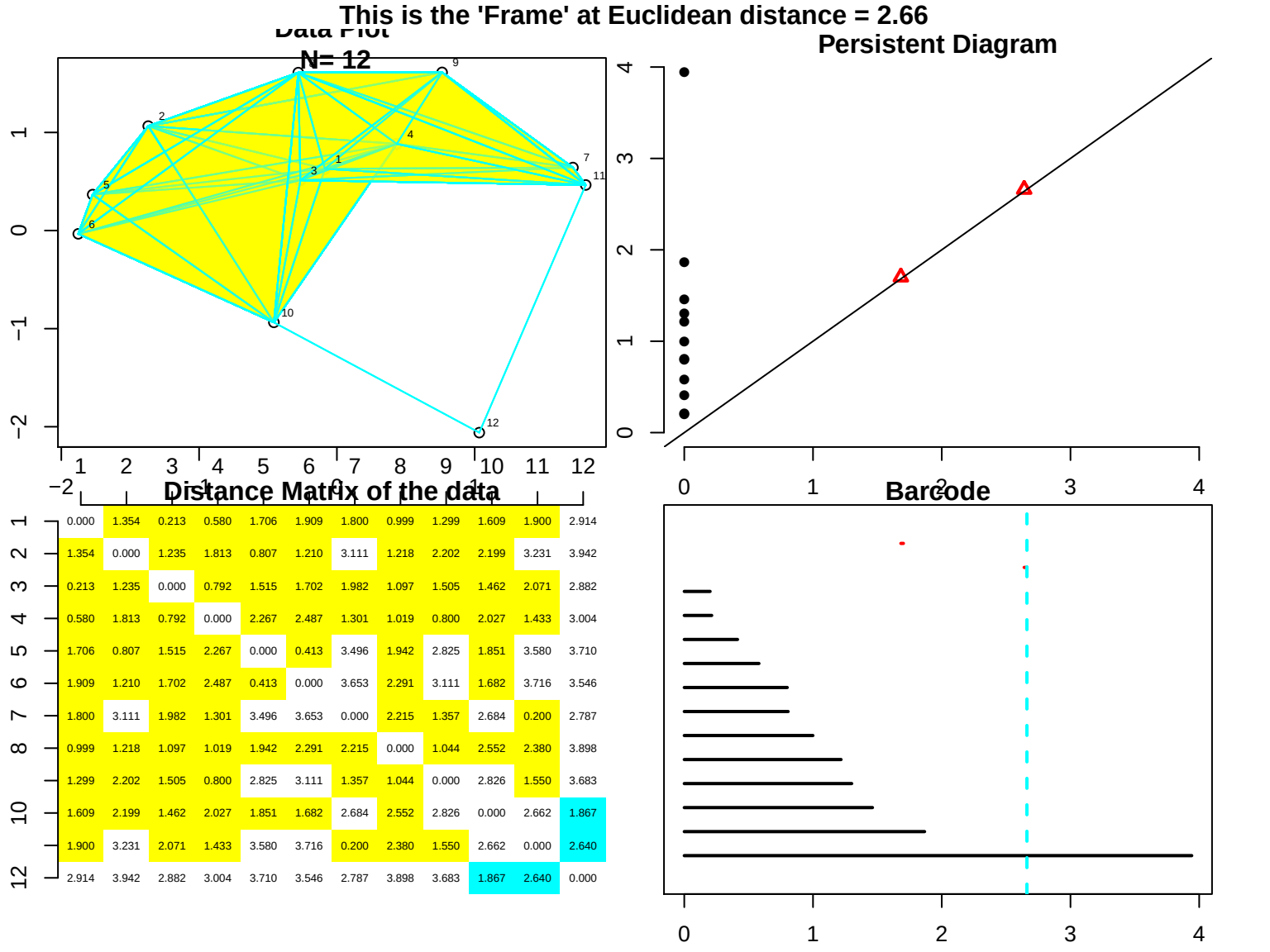




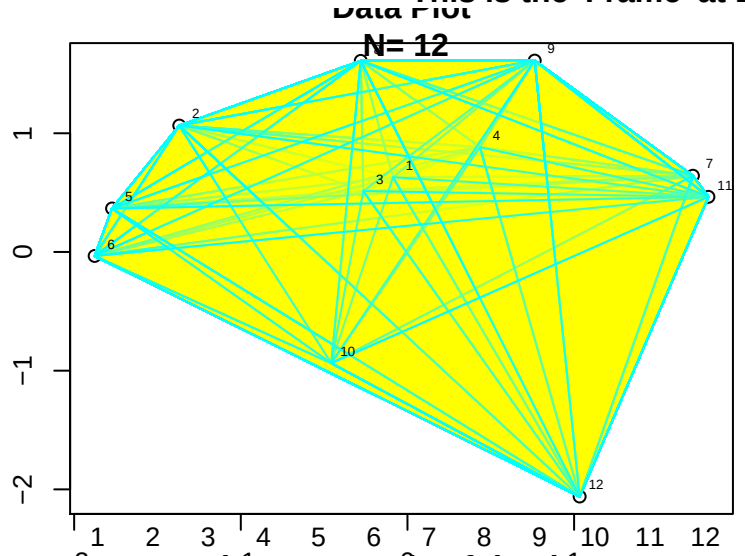
Distance Matrix of the data

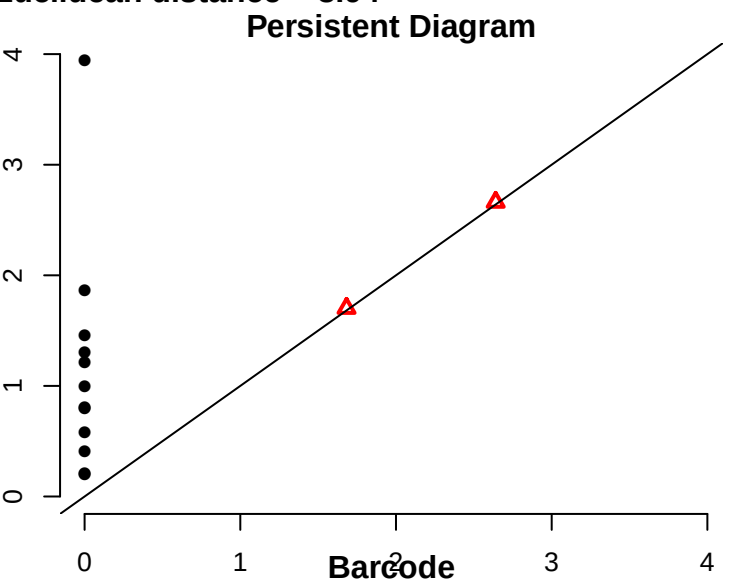
	1	2	3	4	5	6	7	8	10	12
1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
10	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
12	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000




This is the 'Frame' at Euclidean distance = 2.66
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode

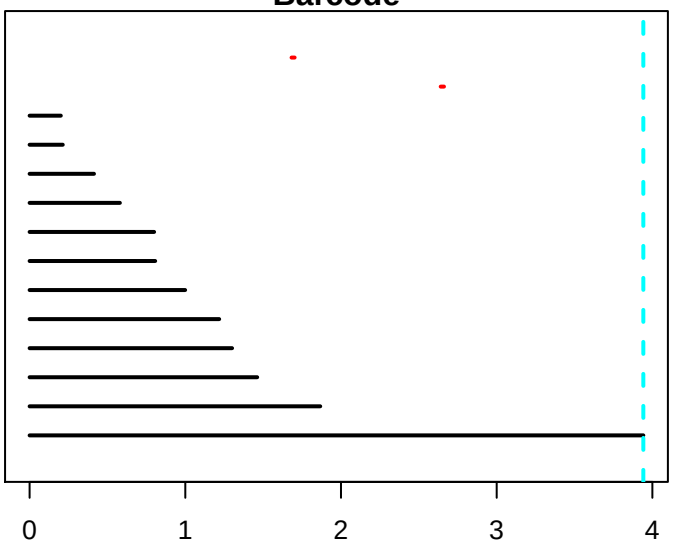
This is the 'Frame' at Euclidean distance = 3.94





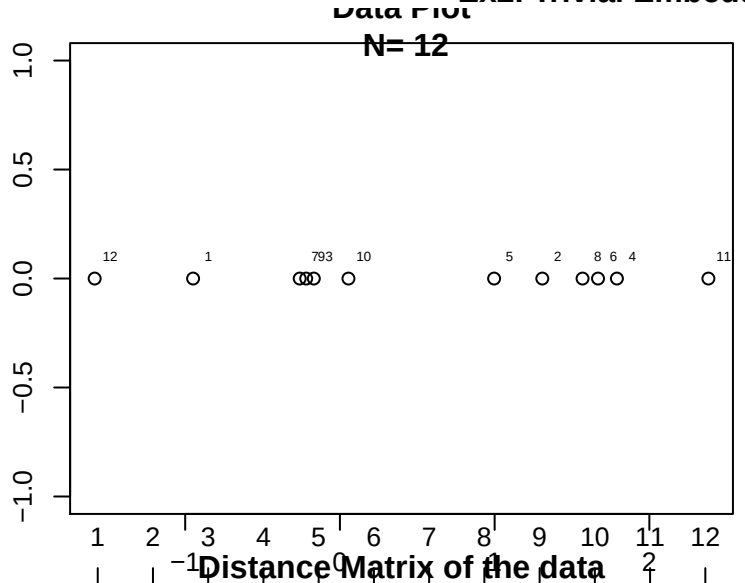
Distance Matrix of the data

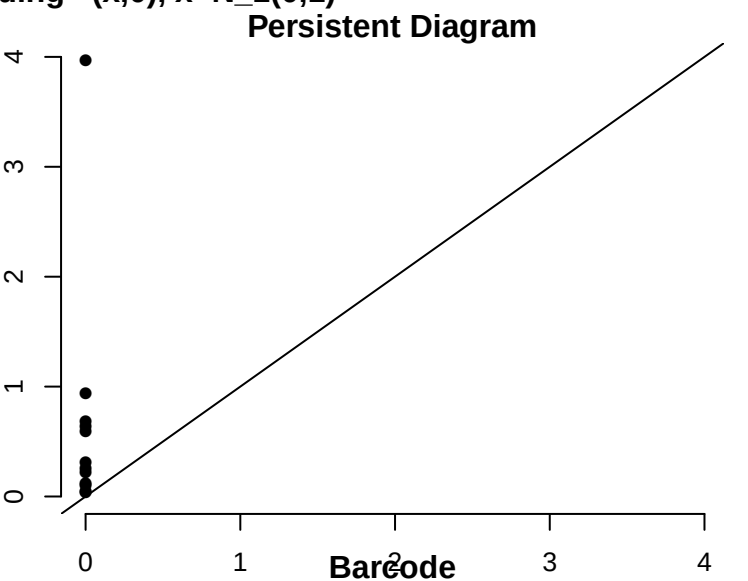
	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	1.354	0.213	0.580	1.706	1.909	1.800	0.999	1.299	1.609	1.900	2.914
2	1.354	0.000	1.235	1.813	0.807	1.210	3.111	1.218	2.202	2.199	3.231	3.942
3	0.213	1.235	0.000	0.792	1.515	1.702	1.982	1.097	1.505	1.462	2.071	2.882
4	0.580	1.813	0.792	0.000	2.267	2.487	1.301	1.019	0.800	2.027	1.433	3.004
5	1.706	0.807	1.515	2.267	0.000	0.413	3.496	1.942	2.825	1.851	3.580	3.710
6	1.909	1.210	1.702	2.487	0.413	0.000	3.653	2.291	3.111	1.682	3.716	3.546
7	1.800	3.111	1.982	1.301	3.496	3.653	0.000	2.215	1.357	2.684	0.200	2.787
8	0.999	1.218	1.097	1.019	1.942	2.291	2.215	0.000	1.044	2.552	2.380	3.898
9	1.299	2.202	1.505	0.800	2.825	3.111	1.357	1.044	0.000	2.826	1.550	3.683
10	1.609	2.199	1.462	2.027	1.851	1.682	2.684	2.552	2.826	0.000	2.662	1.867
11	1.900	3.231	2.071	1.433	3.580	3.716	0.200	2.380	1.550	2.662	0.000	2.640
12	2.914	3.942	2.882	3.004	3.710	3.546	2.787	3.898	3.683	1.867	2.640	0.000

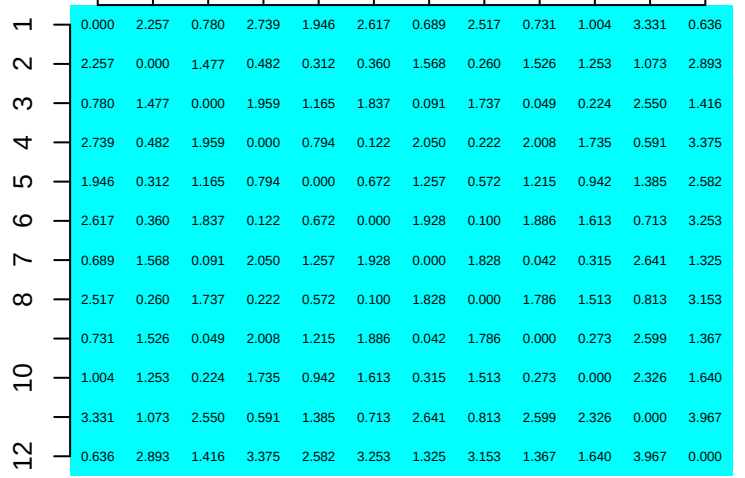


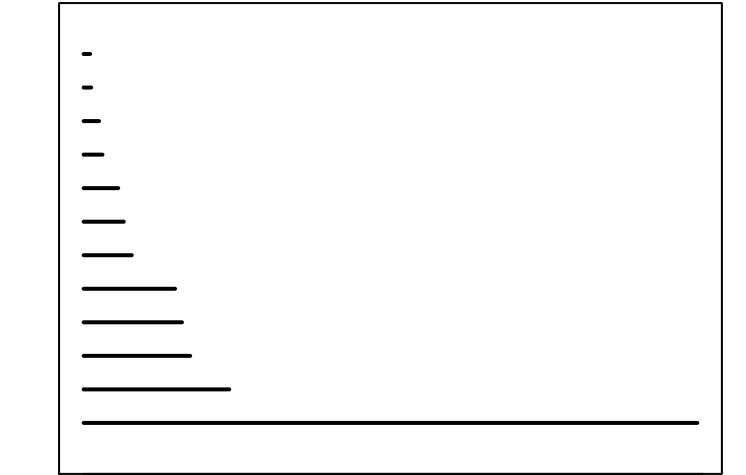
Result and Frame−by−frame plots for Example 2

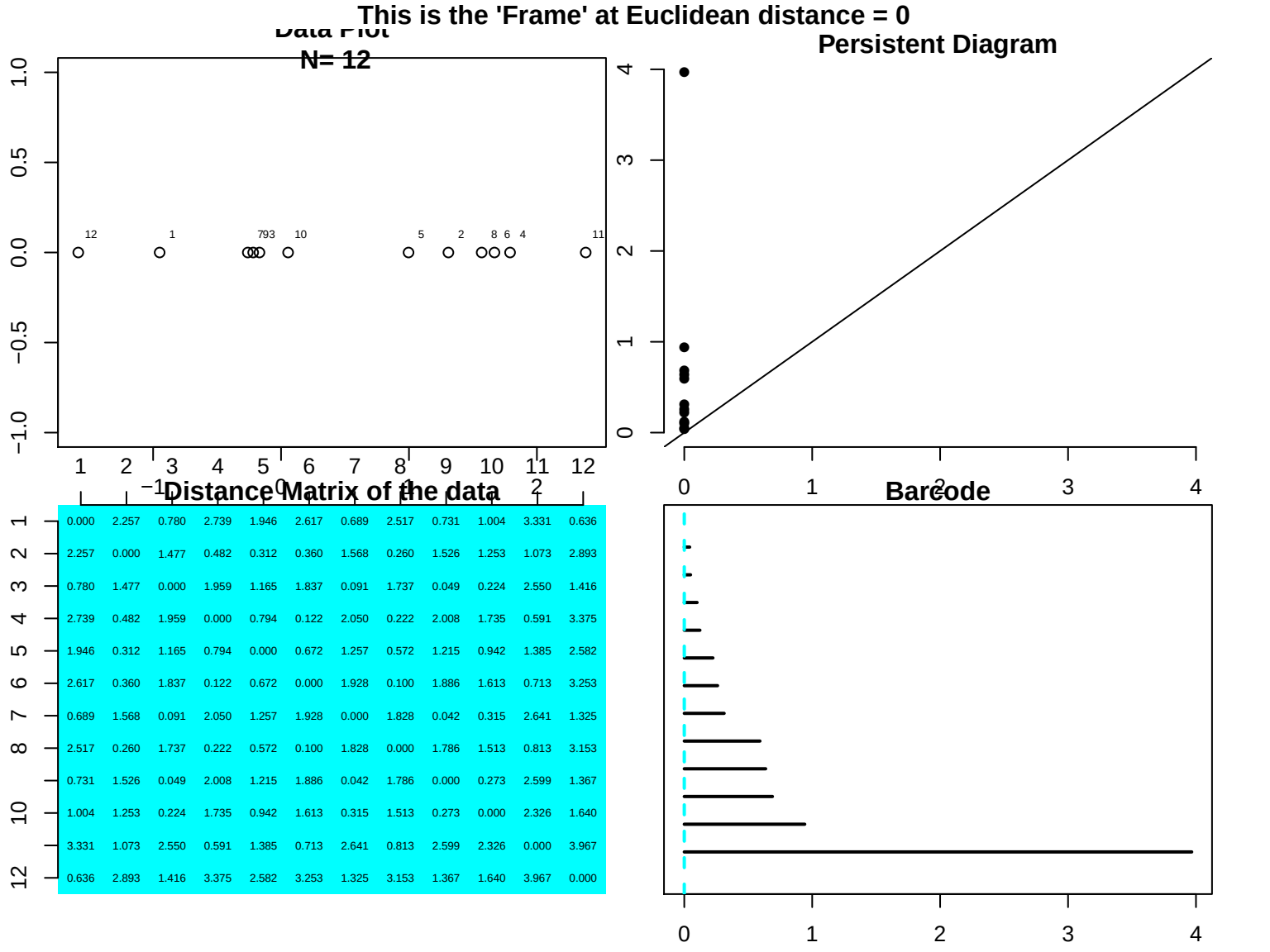
Ex2. Trivial Embedding (x,0), x~N_1(0,1)

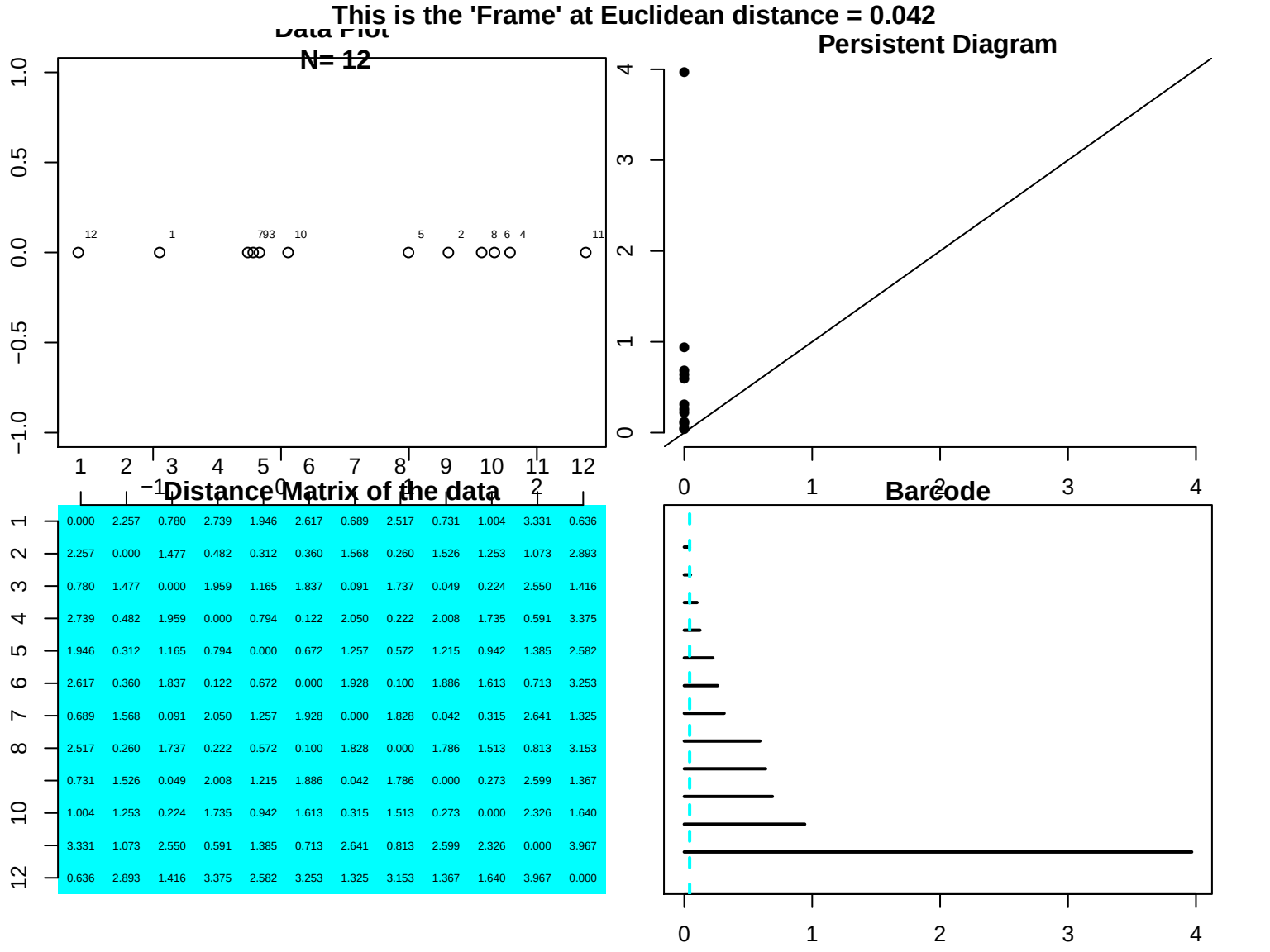


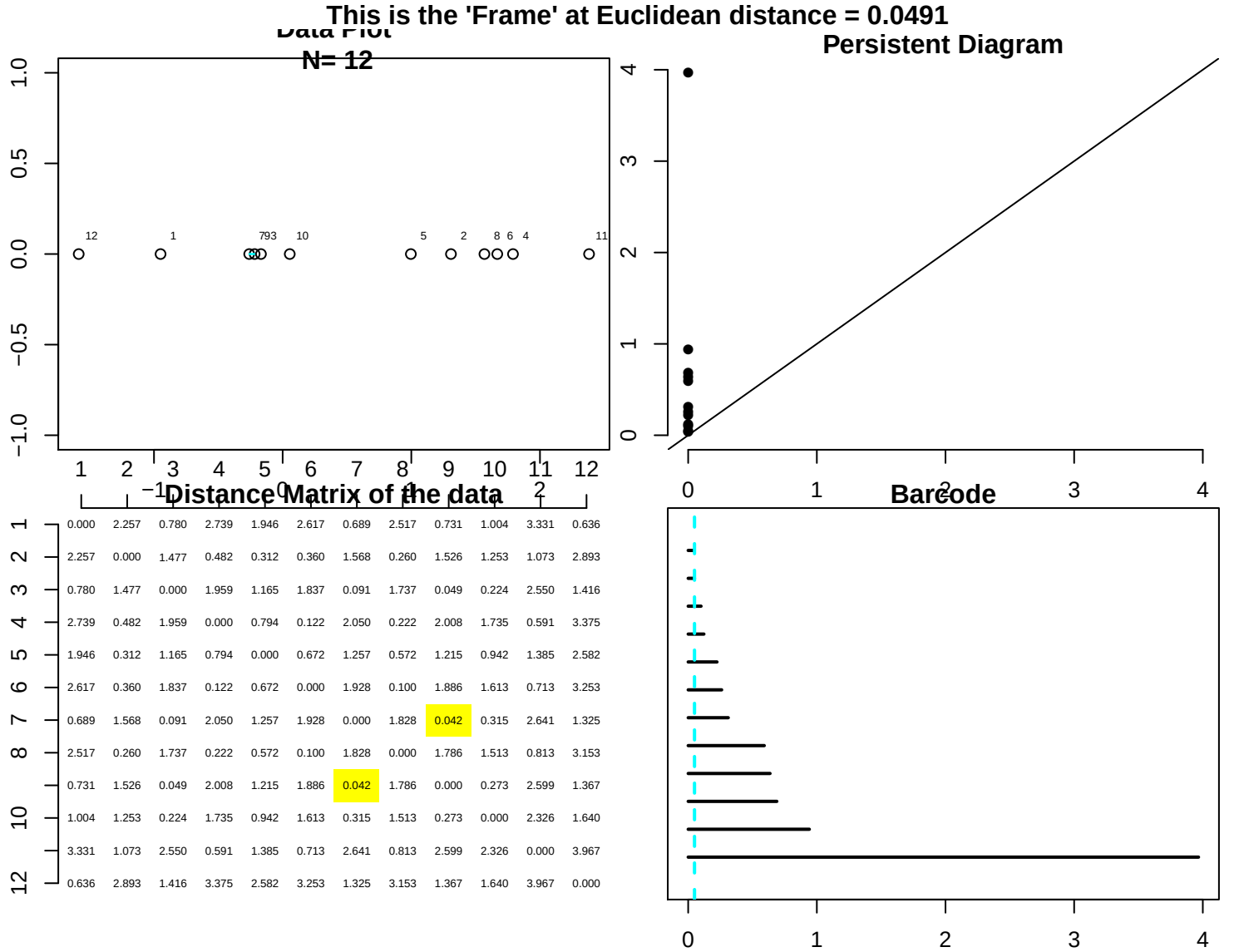


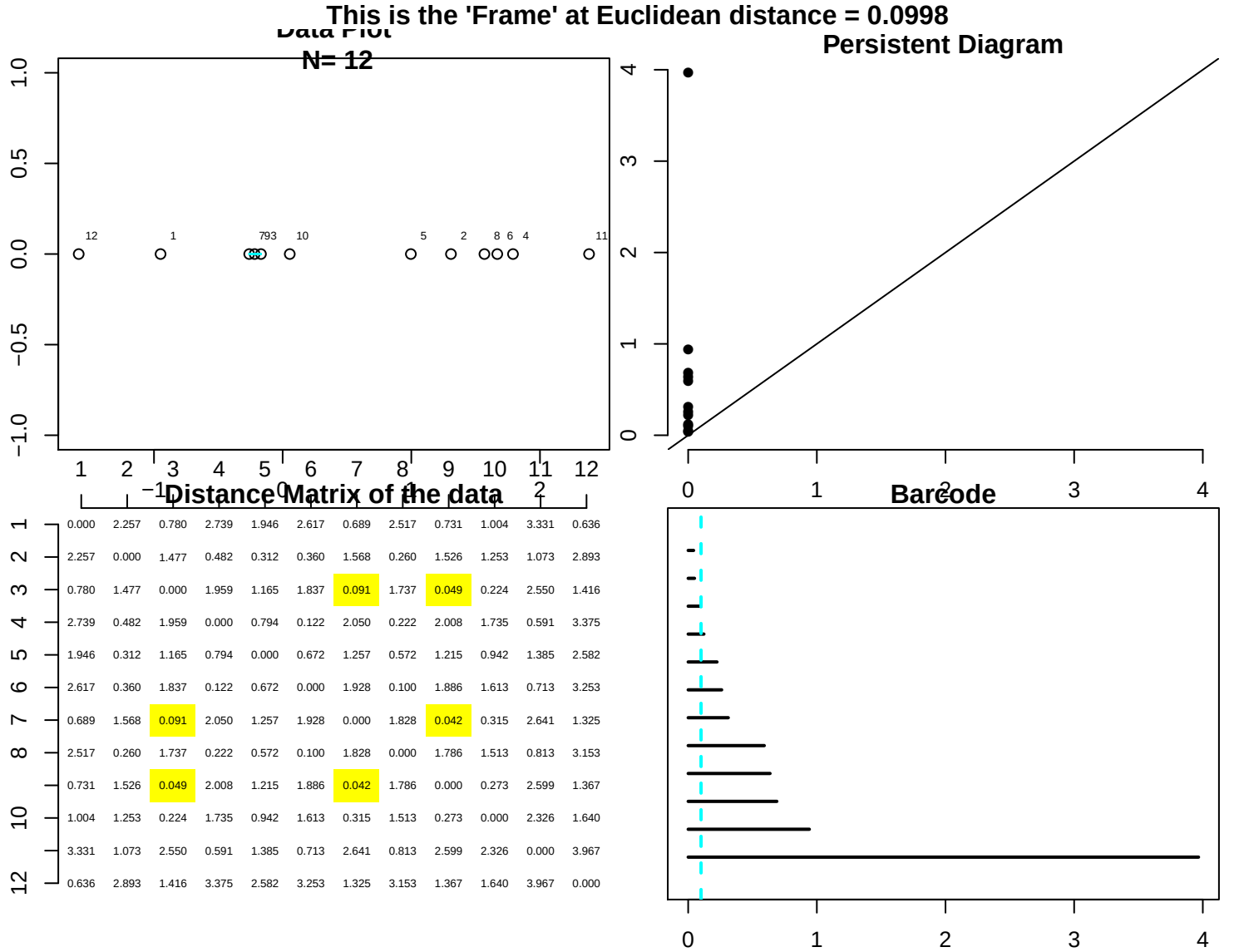


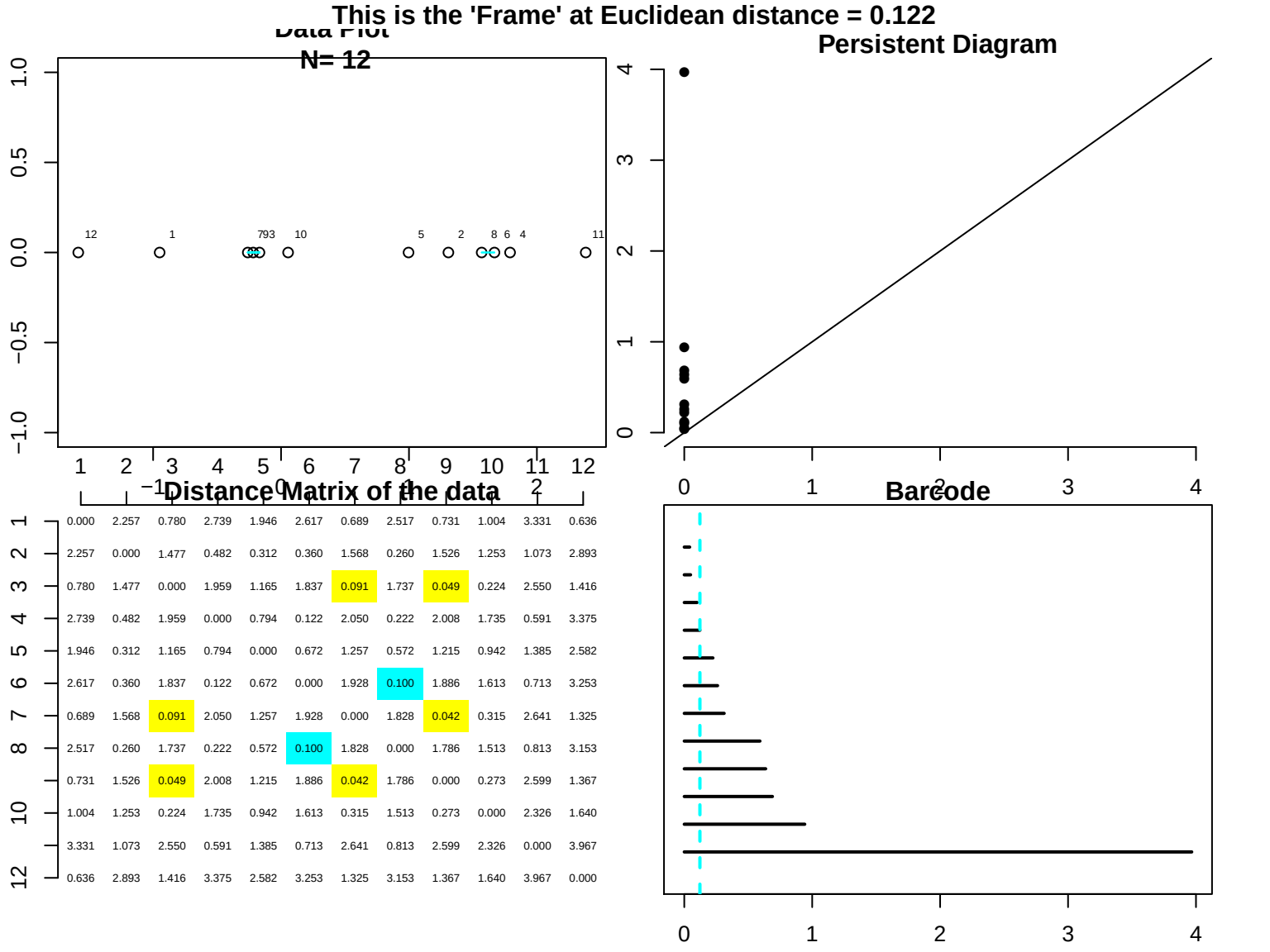


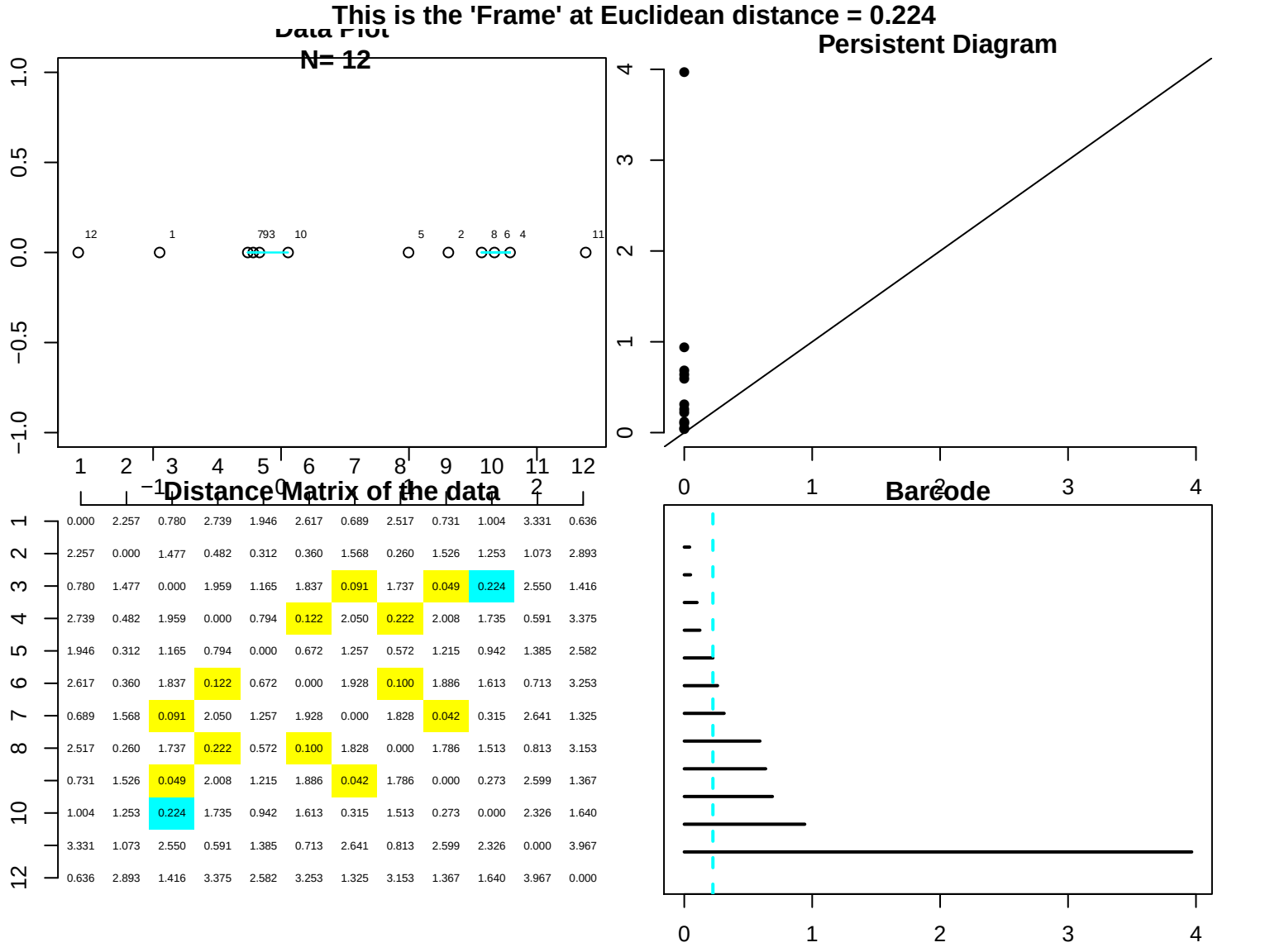

This is the 'Frame' at Euclidean distance = 0
Data Plot
N= 12
12
1
7
9
3
10
5
2
8
6
4
11
Persistent Diagram
Distance Matrix of the data
0.000 2.257 0.780 2.739 1.946 2.617 0.689 2.517 0.731 1.004 3.331 0.636
2.257 0.000 1.477 0.482 0.312 0.360 1.568 0.260 1.526 1.253 1.073 2.893
0.780 1.477 0.000 1.959 1.165 1.837 0.091 1.737 0.049 0.224 2.550 1.416
2.739 0.482 1.959 0.000 0.794 0.122 2.050 0.222 2.008 1.735 0.591 3.375
1.946 0.312 1.165 0.794 0.000 0.672 1.257 0.572 1.215 0.942 1.385 2.582
2.617 0.360 1.837 0.122 0.672 0.000 1.928 0.100 1.886 1.613 0.713 3.253
0.689 1.568 0.091 2.050 1.257 1.928 0.000 1.828 0.042 0.315 2.641 1.325
2.517 0.260 1.737 0.222 0.572 0.100 1.828 0.000 1.786 1.513 0.813 3.153
0.731 1.526 0.049 2.008 1.215 1.886 0.042 1.786 0.000 0.273 2.599 1.367
1.004 1.253 0.224 1.735 0.942 1.613 0.315 1.513 0.273 0.000 2.326 1.640
3.331 1.073 2.550 0.591 1.385 0.713 2.641 0.813 2.599 2.326 0.000 3.967
0.636 2.893 1.416 3.375 2.582 3.253 1.325 3.153 1.367 1.640 3.967 0.000
Barcode

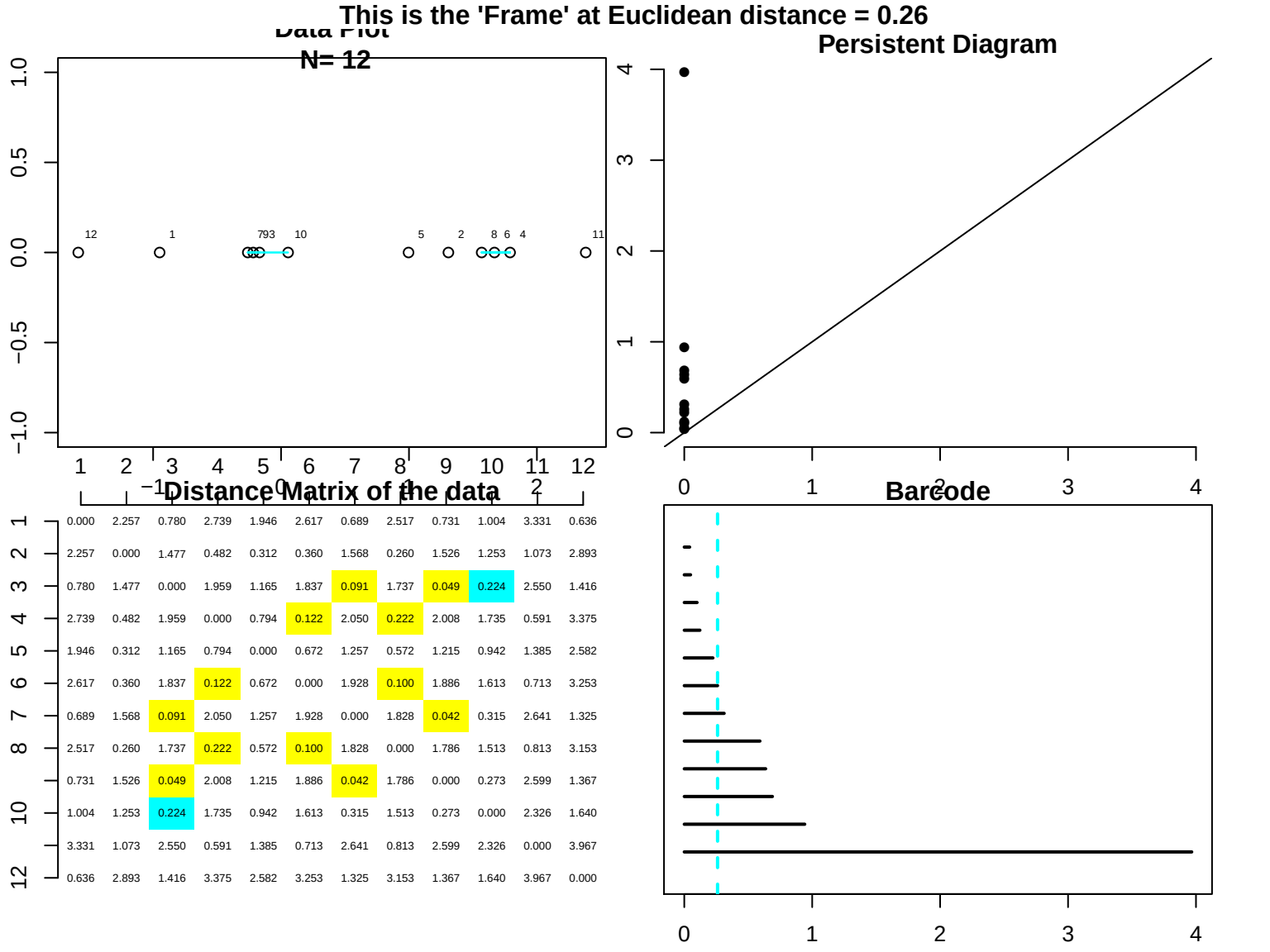

This is the 'Frame' at Euclidean distance = 0.042
Data Plot
N= 12
12
1
7
9
3
10
5
2
8
6
4
11
Persistent Diagram
Distance Matrix of the data
0.000 2.257 0.780 2.739 1.946 2.617 0.689 2.517 0.731 1.004 3.331 0.636
2.257 0.000 1.477 0.482 0.312 0.360 1.568 0.260 1.526 1.253 1.073 2.893
0.780 1.477 0.000 1.959 1.165 1.837 0.091 1.737 0.049 0.224 2.550 1.416
2.739 0.482 1.959 0.000 0.794 0.122 2.050 0.222 2.008 1.735 0.591 3.375
1.946 0.312 1.165 0.794 0.000 0.672 1.257 0.572 1.215 0.942 1.385 2.582
2.617 0.360 1.837 0.122 0.672 0.000 1.928 0.100 1.886 1.613 0.713 3.253
0.689 1.568 0.091 2.050 1.257 1.928 0.000 1.828 0.042 0.315 2.641 1.325
2.517 0.260 1.737 0.222 0.572 0.100 1.828 0.000 1.786 1.513 0.813 3.153
0.731 1.526 0.049 2.008 1.215 1.886 0.042 1.786 0.000 0.273 2.599 1.367
1.004 1.253 0.224 1.735 0.942 1.613 0.315 1.513 0.273 0.000 2.326 1.640
3.331 1.073 2.550 0.591 1.385 0.713 2.641 0.813 2.599 2.326 0.000 3.967
0.636 2.893 1.416 3.375 2.582 3.253 1.325 3.153 1.367 1.640 3.967 0.000
Barcode

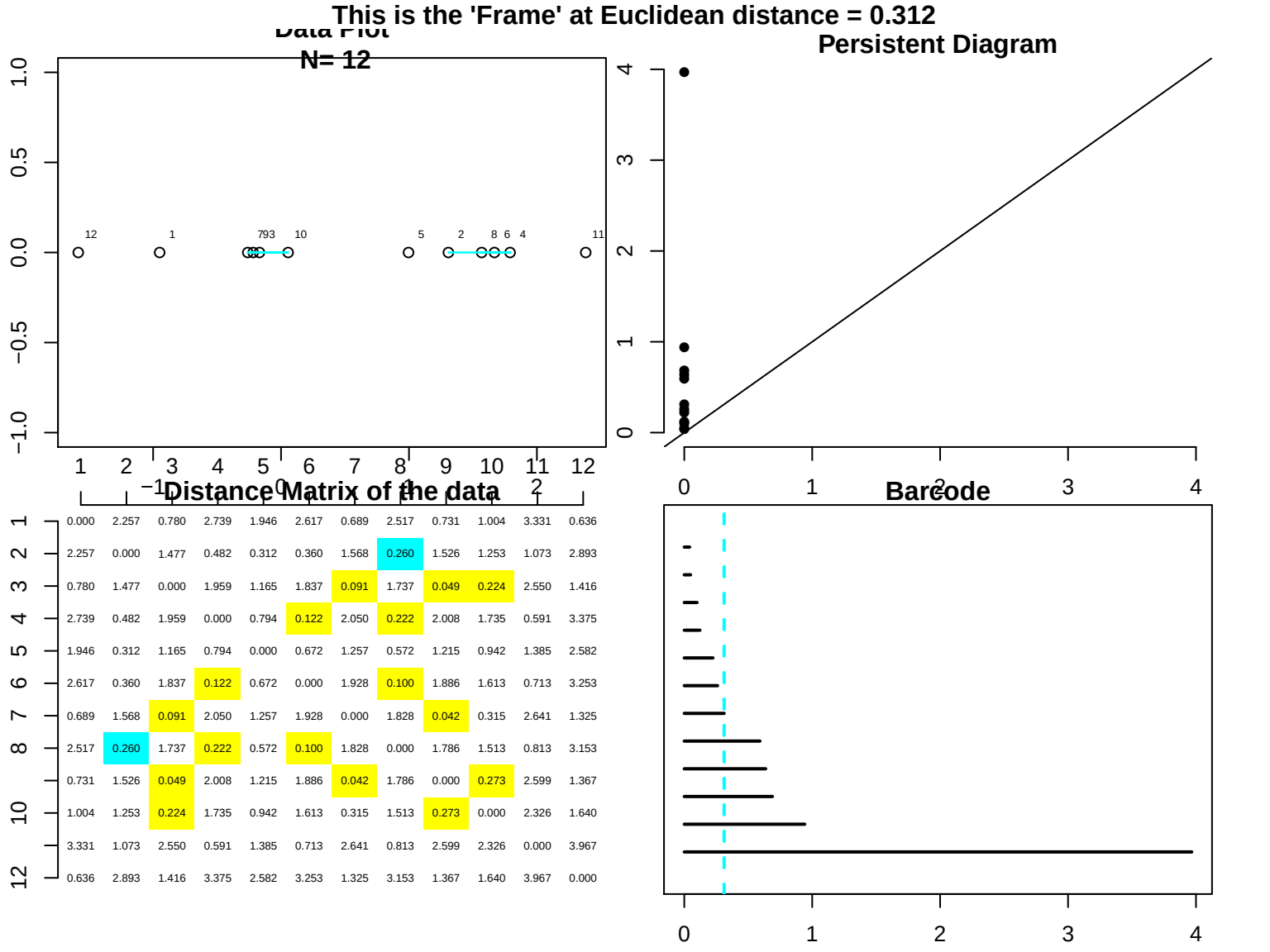

This is the 'Frame' at Euclidean distance = 0.0491
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode

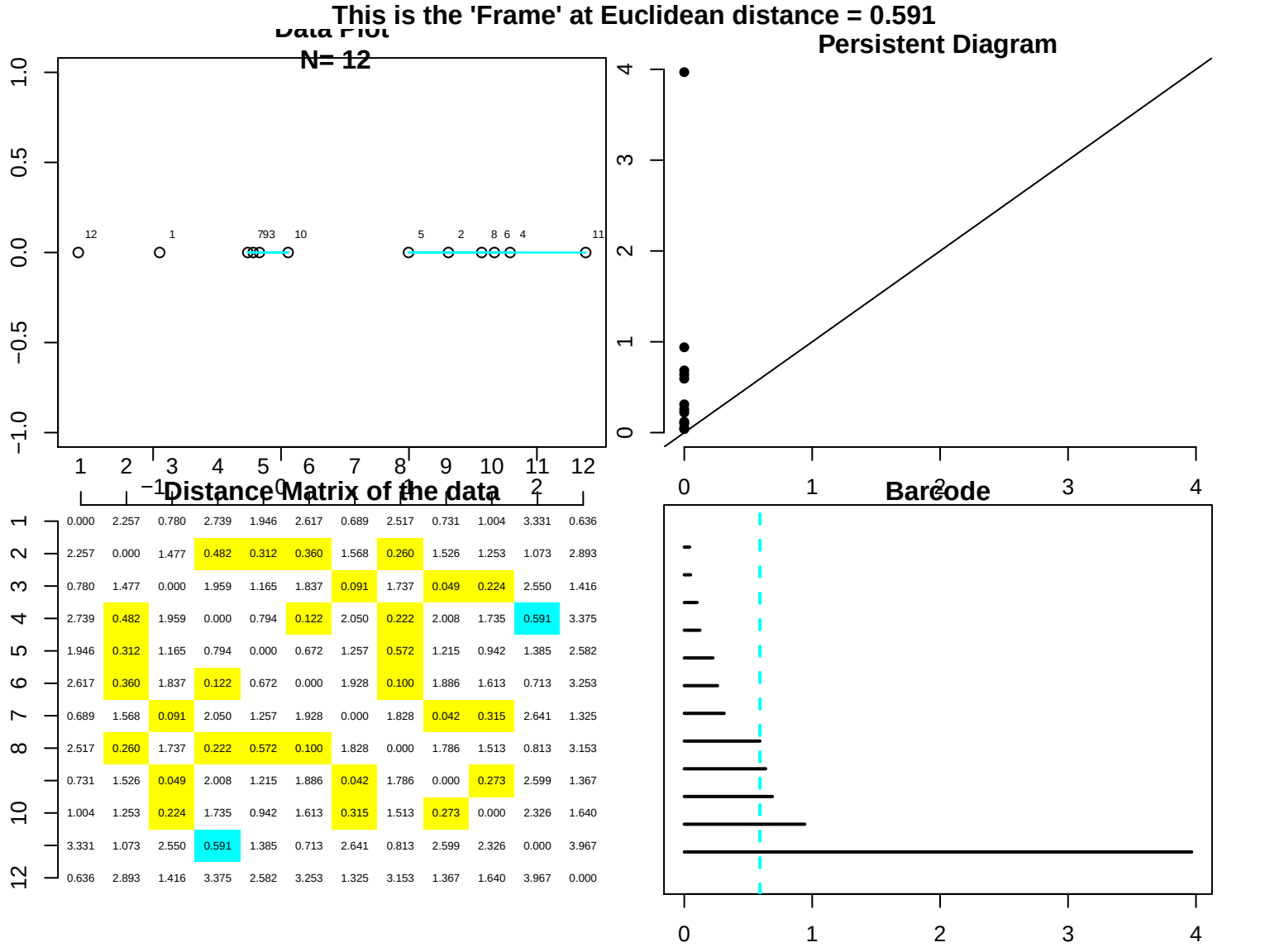

This is the 'Frame' at Euclidean distance = 0.0998
Data Plot
N= 12
12
1
793
10
5
2
8
6
4
11
Persistent Diagram
Distance Matrix of the data
0.000 2.257 0.780 2.739 1.946 2.617 0.689 2.517 0.731 1.004 3.331 0.636
2.257 0.000 1.477 0.482 0.312 0.360 1.568 0.260 1.526 1.253 1.073 2.893
0.780 1.477 0.000 1.959 1.165 1.837 0.091 1.737 0.049 0.224 2.550 1.416
2.739 0.482 1.959 0.000 0.794 0.122 2.050 0.222 2.008 1.735 0.591 3.375
1.946 0.312 1.165 0.794 0.000 0.672 1.257 0.572 1.215 0.942 1.385 2.582
2.617 0.360 1.837 0.122 0.672 0.000 1.928 0.100 1.886 1.613 0.713 3.253
0.689 1.568 0.091 2.050 1.257 1.928 0.000 1.828 0.042 0.315 2.641 1.325
2.517 0.260 1.737 0.222 0.572 0.100 1.828 0.000 1.786 1.513 0.813 3.153
0.731 1.526 0.049 2.008 1.215 1.886 0.042 1.786 0.000 0.273 2.599 1.367
1.004 1.253 0.224 1.735 0.942 1.613 0.315 1.513 0.273 0.000 2.326 1.640
3.331 1.073 2.550 0.591 1.385 0.713 2.641 0.813 2.599 2.326 0.000 3.967
0.636 2.893 1.416 3.375 2.582 3.253 1.325 3.153 1.367 1.640 3.967 0.000
Barcode

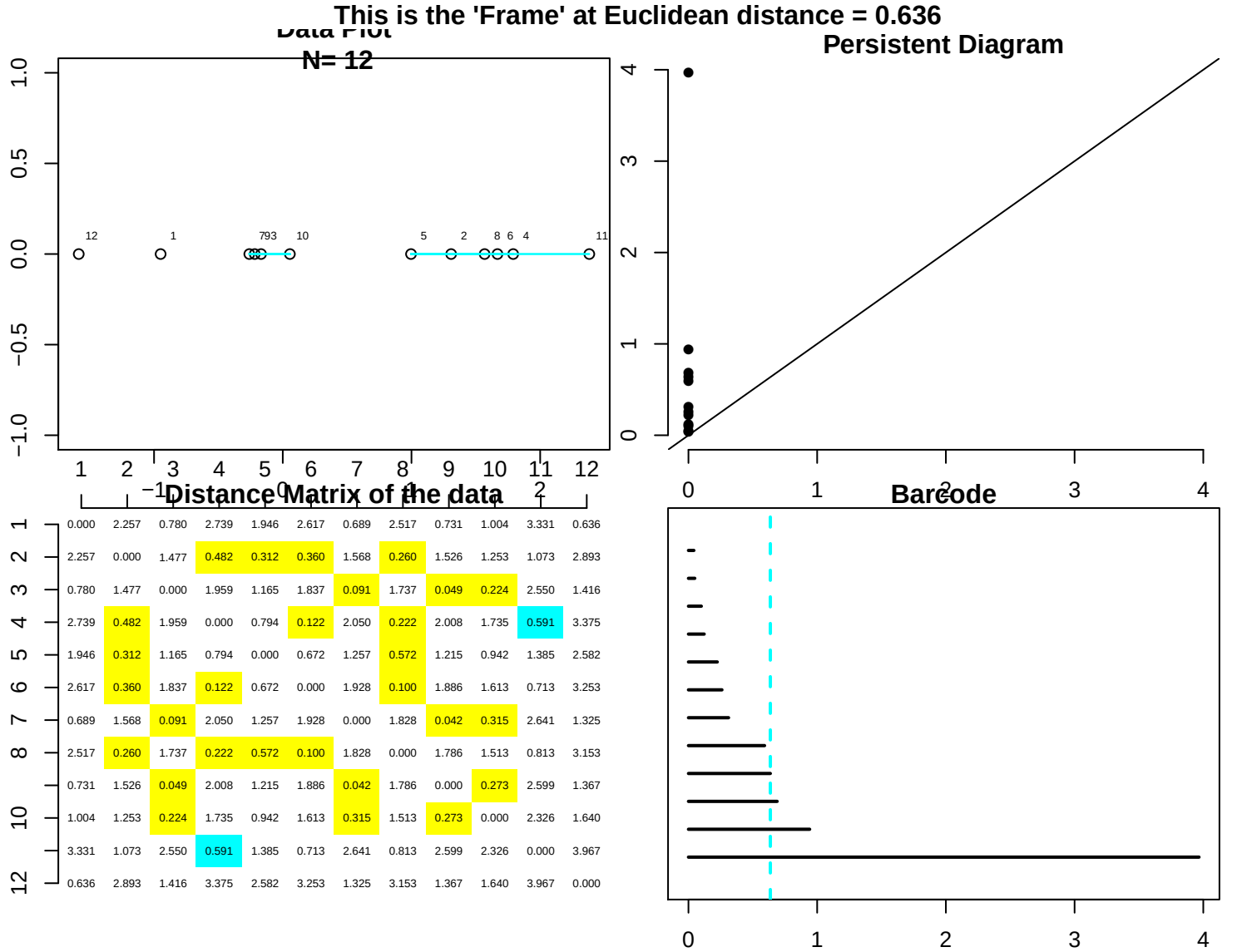

This is the 'Frame' at Euclidean distance = 0.122
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode

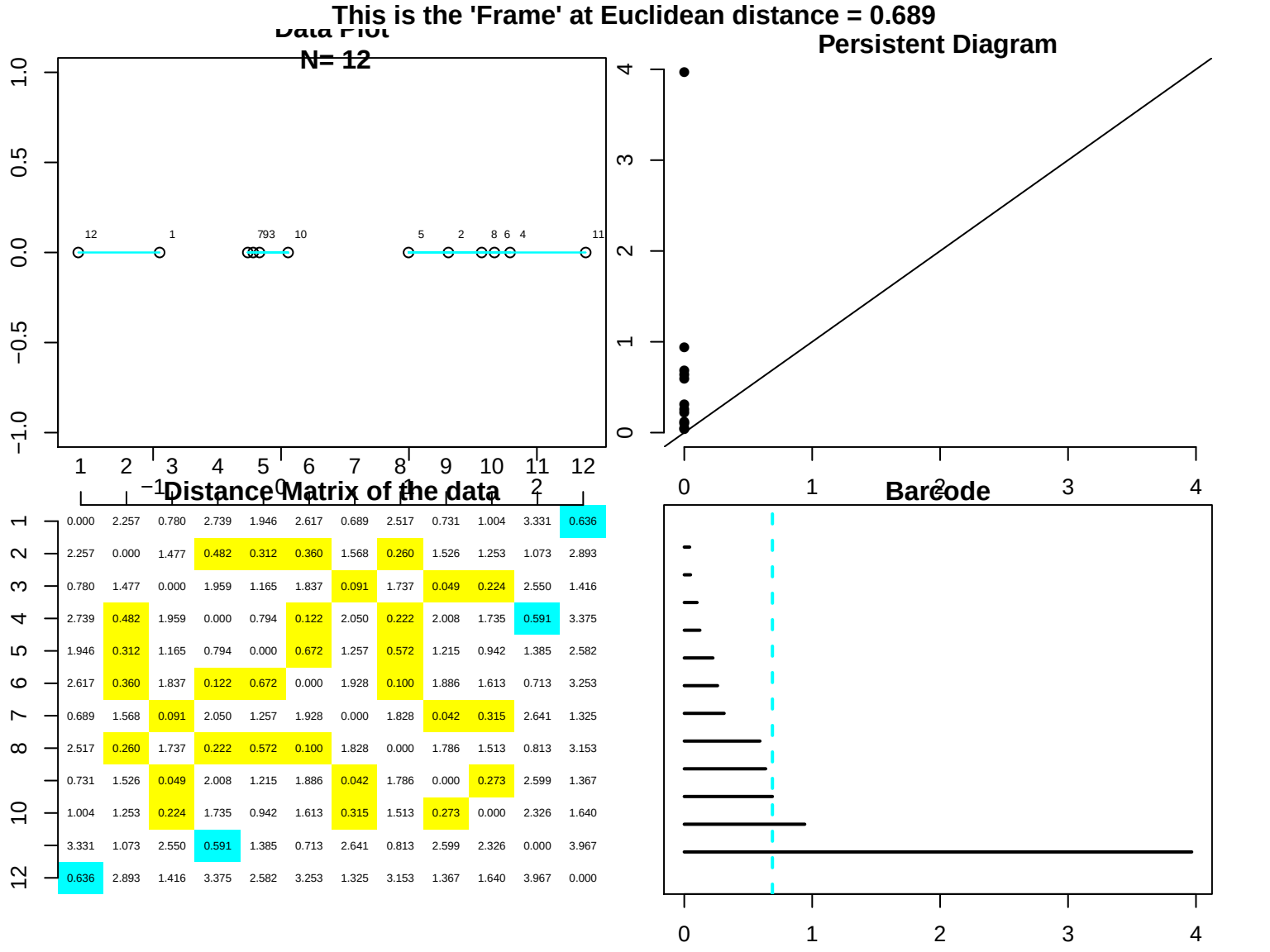

This is the 'Frame' at Euclidean distance = 0.224
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode

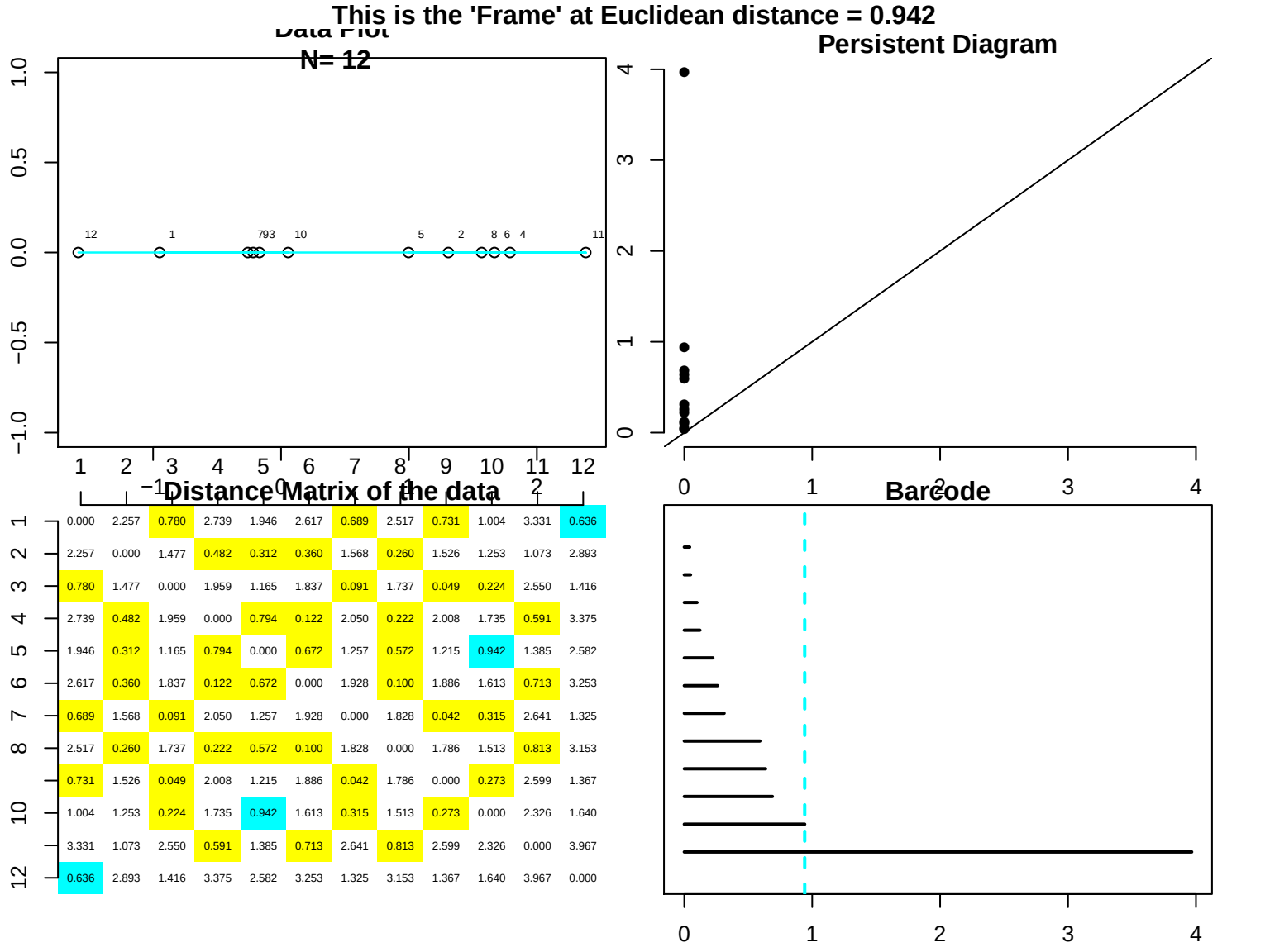

This is the 'Frame' at Euclidean distance = 0.26
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode

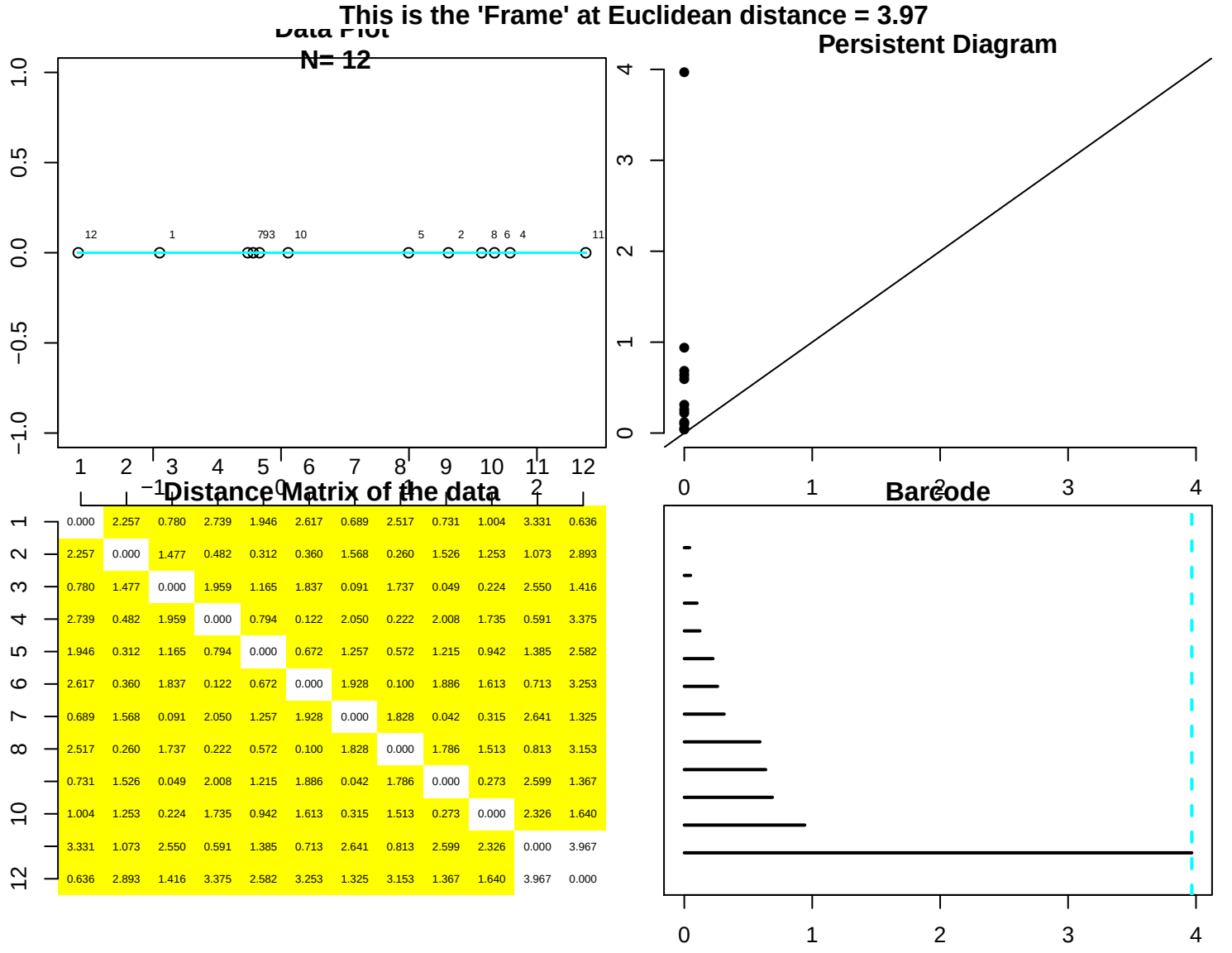

This is the 'Frame' at Euclidean distance = 0.312
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode


This is the 'Frame' at Euclidean distance = 0.591
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode


This is the 'Frame' at Euclidean distance = 0.636
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode

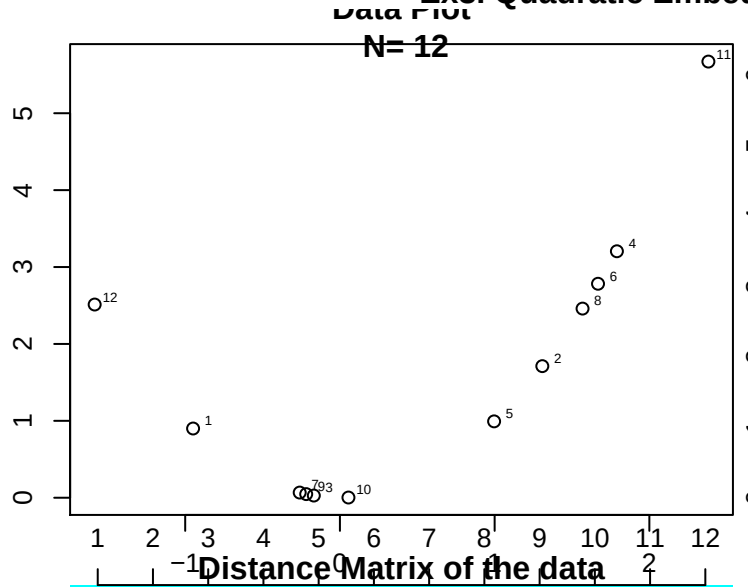

This is the 'Frame' at Euclidean distance = 0.689
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode

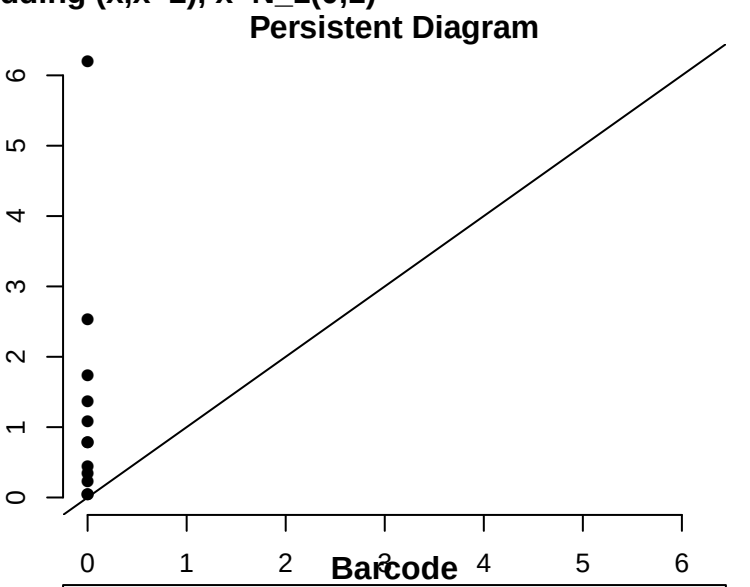

This is the 'Frame' at Euclidean distance = 0.942
Data Plot
N= 12
12 1 7 9 3 10 5 2 8 6 4 11
Persistent Diagram
Distance Matrix of the data
0.000 2.257 0.780 2.739 1.946 2.617 0.689 2.517 0.731 1.004 3.331 0.636
2.257 0.000 1.477 0.482 0.312 0.360 1.568 0.260 1.526 1.253 1.073 2.893
0.780 1.477 0.000 1.959 1.165 1.837 0.091 1.737 0.049 0.224 2.550 1.416
2.739 0.482 1.959 0.000 0.794 0.122 2.050 0.222 2.008 1.735 0.591 3.375
1.946 0.312 1.165 0.794 0.000 0.672 1.257 0.572 1.215 0.942 1.385 2.582
2.617 0.360 1.837 0.122 0.672 0.000 1.928 0.100 1.886 1.613 0.713 3.253
0.689 1.568 0.091 2.050 1.257 1.928 0.000 1.828 0.042 0.315 2.641 1.325
2.517 0.260 1.737 0.222 0.572 0.100 1.828 0.000 1.786 1.513 0.813 3.153
0.731 1.526 0.049 2.008 1.215 1.886 0.042 1.786 0.000 0.273 2.599 1.367
1.004 1.253 0.224 1.735 0.942 1.613 0.315 1.513 0.273 0.000 2.326 1.640
3.331 1.073 2.550 0.591 1.385 0.713 2.641 0.813 2.599 2.326 0.000 3.967
0.636 2.893 1.416 3.375 2.582 3.253 1.325 3.153 1.367 1.640 3.967 0.000
Barcode


This is the 'Frame' at Euclidean distance = 3.97
Data Plot
N= 12
12 1 7 9 3 10 5 2 8 6 4 11
Persistent Diagram
Distance Matrix of the data
0.000 2.257 0.780 2.739 1.946 2.617 0.689 2.517 0.731 1.004 3.331 0.636
2.257 0.000 1.477 0.482 0.312 0.360 1.568 0.260 1.526 1.253 1.073 2.893
0.780 1.477 0.000 1.959 1.165 1.837 0.091 1.737 0.049 0.224 2.550 1.416
2.739 0.482 1.959 0.000 0.794 0.122 2.050 0.222 2.008 1.735 0.591 3.375
1.946 0.312 1.165 0.794 0.000 0.672 1.257 0.572 1.215 0.942 1.385 2.582
2.617 0.360 1.837 0.122 0.672 0.000 1.928 0.100 1.886 1.613 0.713 3.253
0.689 1.568 0.091 2.050 1.257 1.928 0.000 1.828 0.042 0.315 2.641 1.325
2.517 0.260 1.737 0.222 0.572 0.100 1.828 0.000 1.786 1.513 0.813 3.153
0.731 1.526 0.049 2.008 1.215 1.886 0.042 1.786 0.000 0.273 2.599 1.367
1.004 1.253 0.224 1.735 0.942 1.613 0.315 1.513 0.273 0.000 2.326 1.640
3.331 1.073 2.550 0.591 1.385 0.713 2.641 0.813 2.599 2.326 0.000 3.967
0.636 2.893 1.416 3.375 2.582 3.253 1.325 3.153 1.367 1.640 3.967 0.000
Barcode

Result and Frame−by−frame plots for Example 3

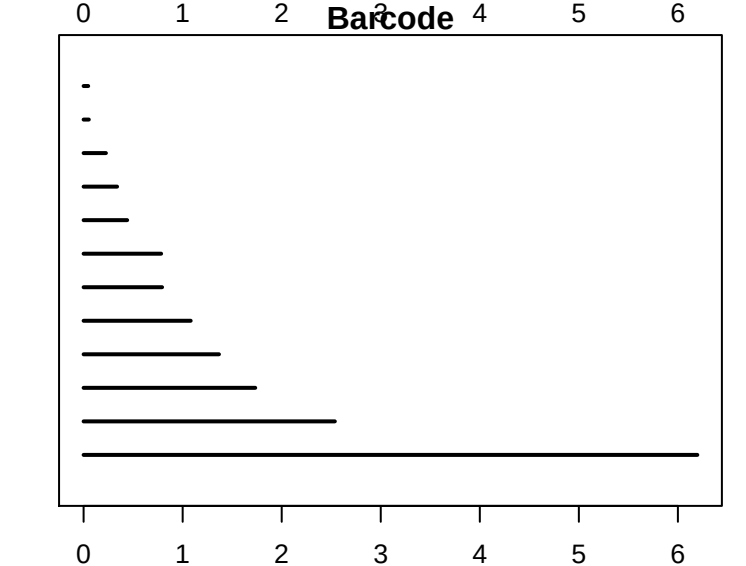
Ex3. Quadratic Embedding (x,x^2), x~N_1(0,1)



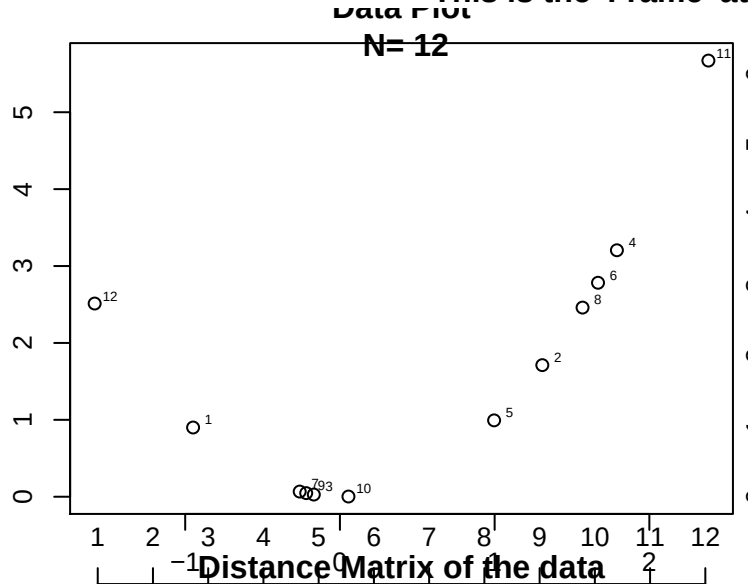


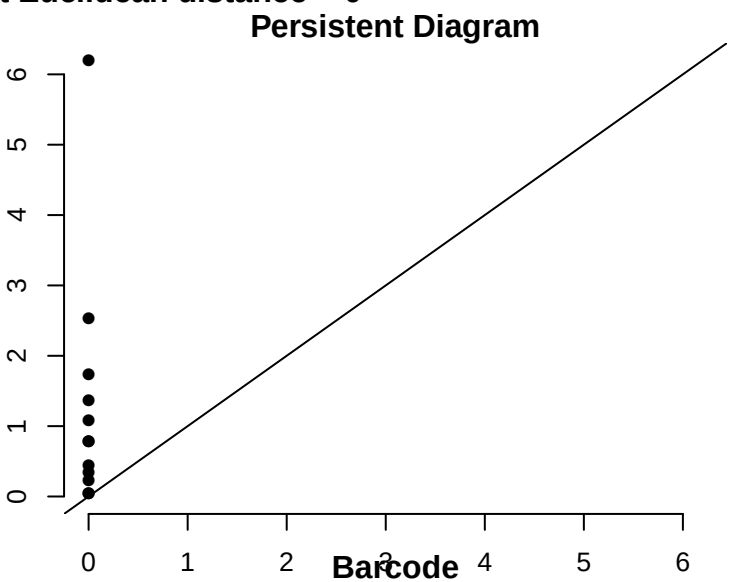
Distance Matrix of the data

1	0.000	2.398	1.170	3.580	1.948	3.224	1.081	2.961	1.123	1.347	5.819	1.733
2	2.398	0.000	2.239	1.570	0.783	1.130	2.272	0.792	2.258	2.119	4.103	3.002
3	1.170	2.239	0.000	3.732	1.513	3.311	0.099	2.988	0.053	0.225	6.193	2.859
4	3.580	1.570	3.732	0.000	2.350	0.440	3.748	0.778	3.742	3.642	2.537	3.446
5	1.948	0.783	1.513	2.350	0.000	1.911	1.561	1.574	1.539	1.366	4.879	2.996
6	3.224	1.130	3.311	0.440	1.911	0.000	3.330	0.338	3.322	3.214	2.976	3.264
7	1.081	2.272	0.099	3.748	1.561	3.330	0.000	3.011	0.047	0.321	6.196	2.781
8	2.961	0.792	2.988	0.778	1.574	0.338	3.011	0.000	3.002	2.885	3.314	3.154
10	1.123	2.258	0.053	3.742	1.539	3.322	0.047	3.002	0.000	0.277	6.196	2.819
12	1.347	2.119	0.225	3.642	1.366	3.214	0.321	2.885	0.277	0.000	6.128	2.998
	5.819	4.103	6.193	2.537	4.879	2.976	6.196	3.314	6.196	6.128	0.000	5.071
	1.733	3.002	2.859	3.446	2.996	3.264	2.781	3.154	2.819	2.998	5.071	0.000



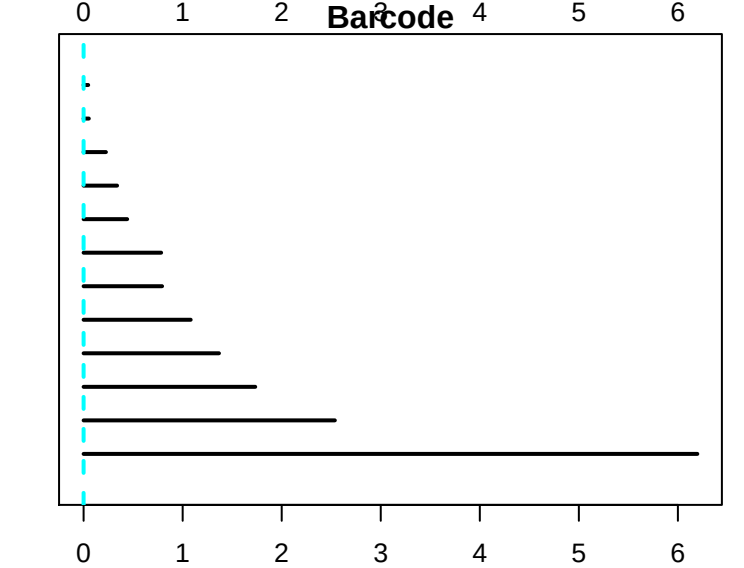
This is the 'Frame' at Euclidean distance = 0



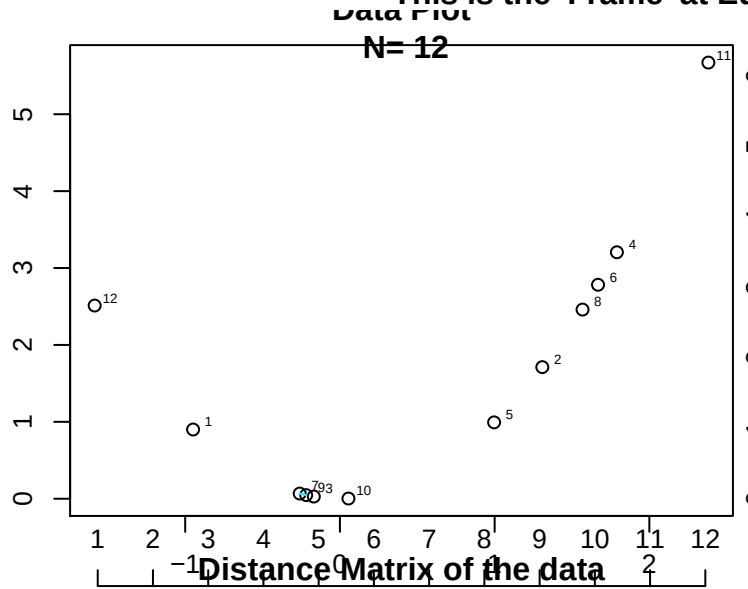


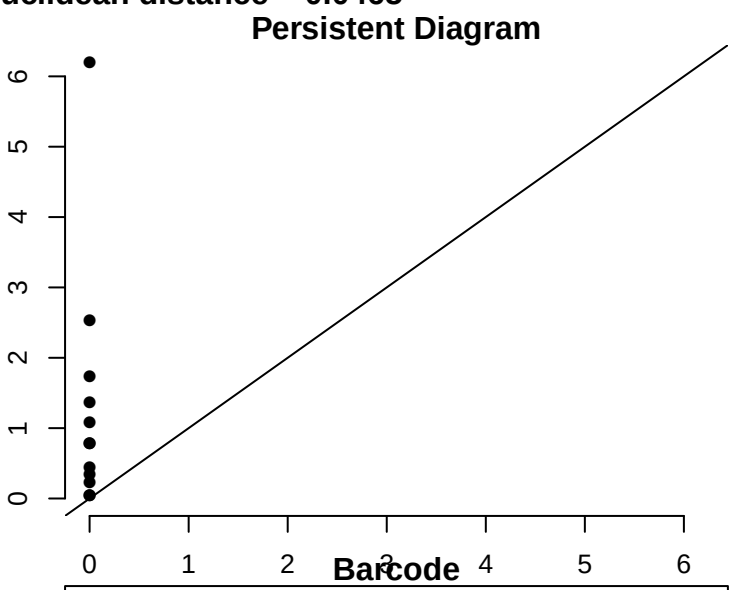
Distance Matrix of the data

1	0.000	2.398	1.170	3.580	1.948	3.224	1.081	2.961	1.123	1.347	5.819	1.733
2	2.398	0.000	2.239	1.570	0.783	1.130	2.272	0.792	2.258	2.119	4.103	3.002
3	1.170	2.239	0.000	3.732	1.513	3.311	0.099	2.988	0.053	0.225	6.193	2.859
4	3.580	1.570	3.732	0.000	2.350	0.440	3.748	0.778	3.742	3.642	2.537	3.446
5	1.948	0.783	1.513	2.350	0.000	1.911	1.561	1.574	1.539	1.366	4.879	2.996
6	3.224	1.130	3.311	0.440	1.911	0.000	3.330	0.338	3.322	3.214	2.976	3.264
7	1.081	2.272	0.099	3.748	1.561	3.330	0.000	3.011	0.047	0.321	6.196	2.781
8	2.961	0.792	2.988	0.778	1.574	0.338	3.011	0.000	3.002	2.885	3.314	3.154
10	1.123	2.258	0.053	3.742	1.539	3.322	0.047	3.002	0.000	0.277	6.196	2.819
12	1.347	2.119	0.225	3.642	1.366	3.214	0.321	2.885	0.277	0.000	6.128	2.998
	5.819	4.103	6.193	2.537	4.879	2.976	6.196	3.314	6.196	6.128	0.000	5.071
	1.733	3.002	2.859	3.446	2.996	3.264	2.781	3.154	2.819	2.998	5.071	0.000



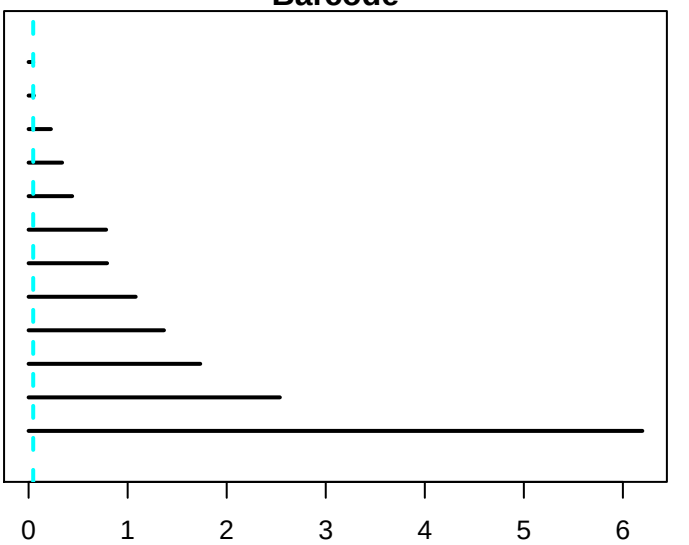
This is the 'Frame' at Euclidean distance = 0.0465

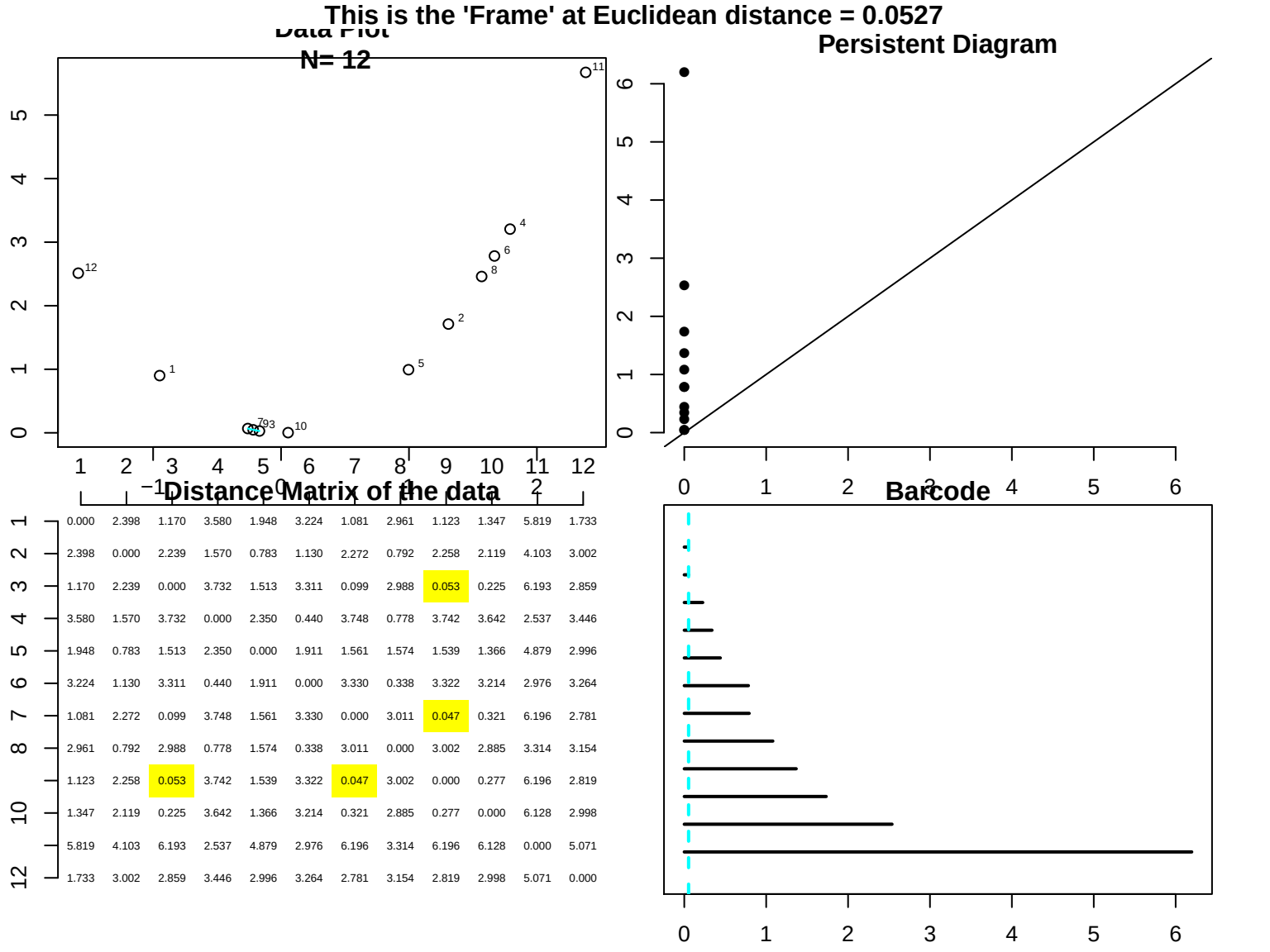


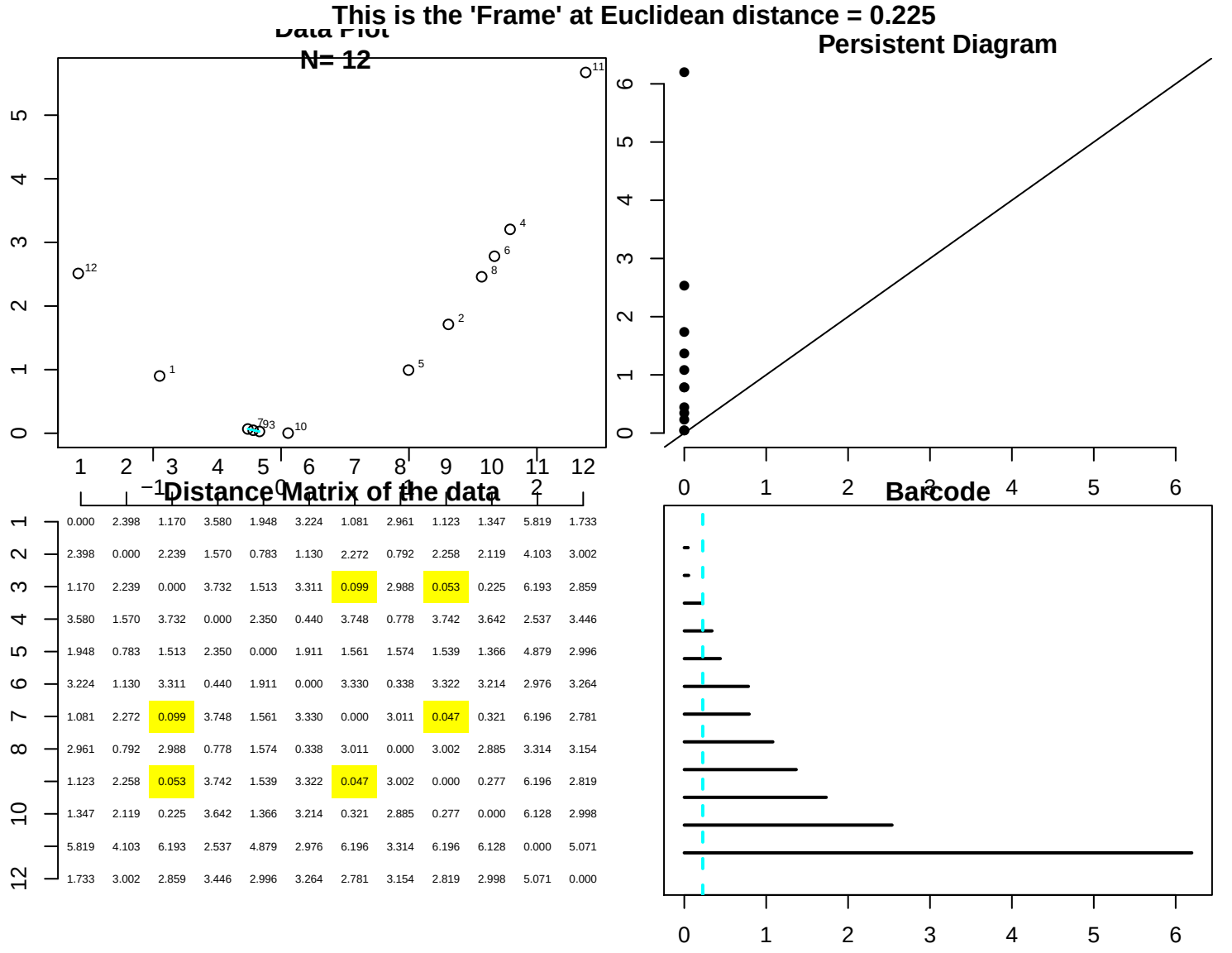


Distance Matrix of the data

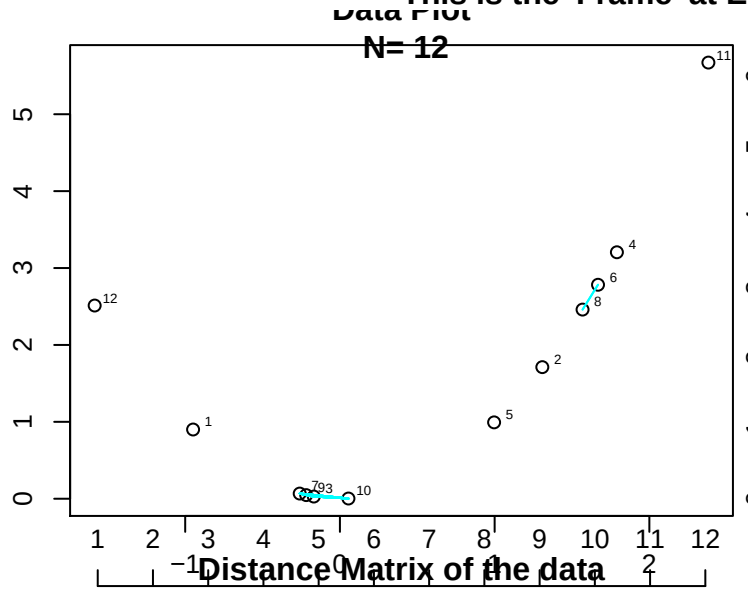
	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	2.398	1.170	3.580	1.948	3.224	1.081	2.961	1.123	1.347	5.819	1.733
2	2.398	0.000	2.239	1.570	0.783	1.130	2.272	0.792	2.258	2.119	4.103	3.002
3	1.170	2.239	0.000	3.732	1.513	3.311	0.099	2.988	0.053	0.225	6.193	2.859
4	3.580	1.570	3.732	0.000	2.350	0.440	3.748	0.778	3.742	3.642	2.537	3.446
5	1.948	0.783	1.513	2.350	0.000	1.911	1.561	1.574	1.539	1.366	4.879	2.996
6	3.224	1.130	3.311	0.440	1.911	0.000	3.330	0.338	3.322	3.214	2.976	3.264
7	1.081	2.272	0.099	3.748	1.561	3.330	0.000	3.011	0.047	0.321	6.196	2.781
8	2.961	0.792	2.988	0.778	1.574	0.338	3.011	0.000	3.002	2.885	3.314	3.154
10	1.123	2.258	0.053	3.742	1.539	3.322	0.047	3.002	0.000	0.277	6.196	2.819
12	1.347	2.119	0.225	3.642	1.366	3.214	0.321	2.885	0.277	0.000	6.128	2.998
	5.819	4.103	6.193	2.537	4.879	2.976	6.196	3.314	6.196	6.128	0.000	5.071
	1.733	3.002	2.859	3.446	2.996	3.264	2.781	3.154	2.819	2.998	5.071	0.000

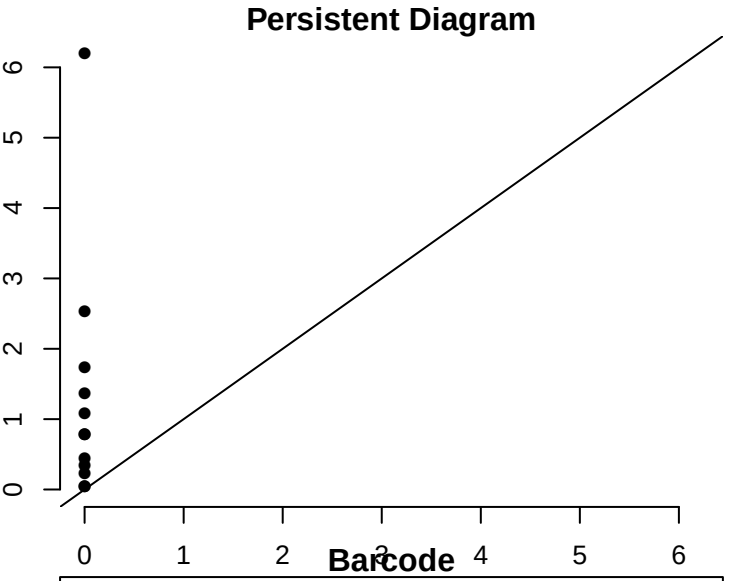



This is the 'Frame' at Euclidean distance = 0.0527
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode


This is the 'Frame' at Euclidean distance = 0.225
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode

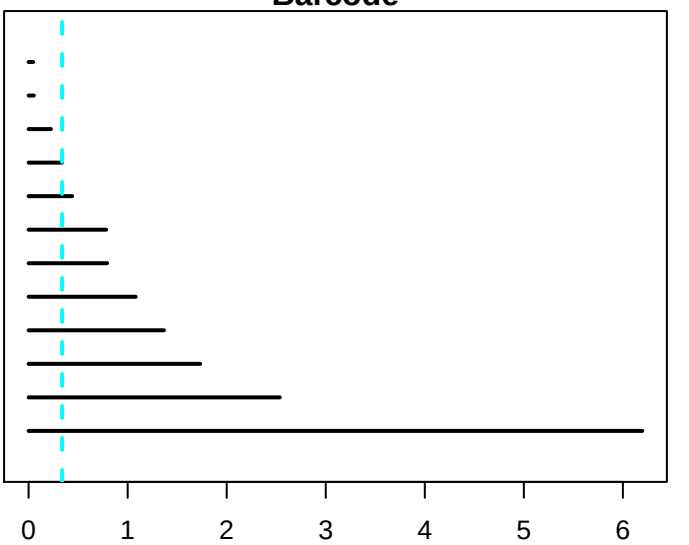
This is the 'Frame' at Euclidean distance = 0.338



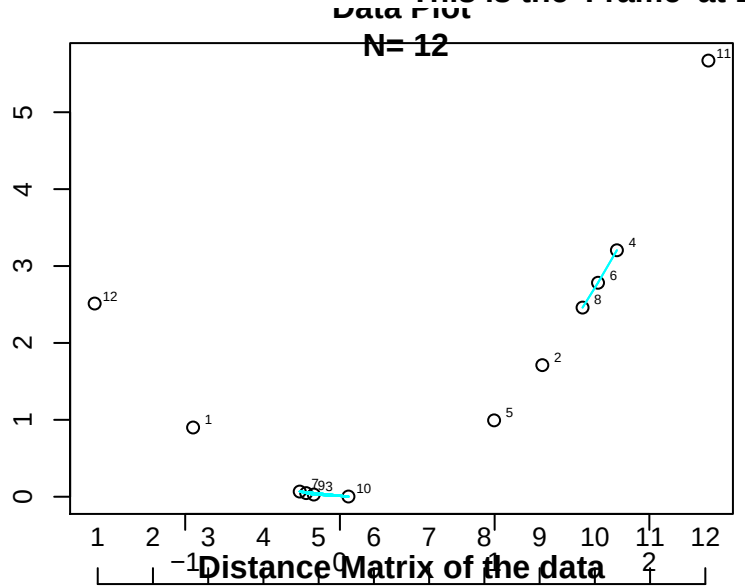


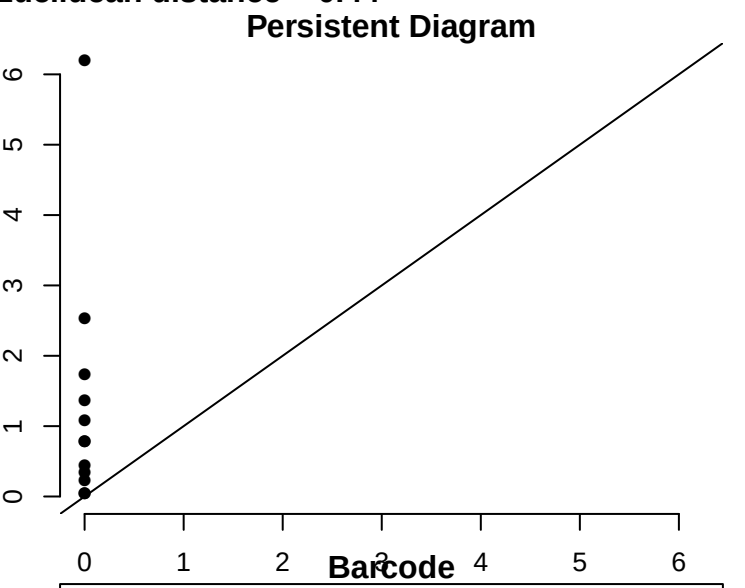
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	2.398	1.170	3.580	1.948	3.224	1.081	2.961	1.123	1.347	5.819	1.733
2	2.398	0.000	2.239	1.570	0.783	1.130	2.272	0.792	2.258	2.119	4.103	3.002
3	1.170	2.239	0.000	3.732	1.513	3.311	0.099	2.988	0.053	0.225	6.193	2.859
4	3.580	1.570	3.732	0.000	2.350	0.440	3.748	0.778	3.742	3.642	2.537	3.446
5	1.948	0.783	1.513	2.350	0.000	1.911	1.561	1.574	1.539	1.366	4.879	2.996
6	3.224	1.130	3.311	0.440	1.911	0.000	3.330	0.338	3.322	3.214	2.976	3.264
7	1.081	2.272	0.099	3.748	1.561	3.330	0.000	3.011	0.047	0.321	6.196	2.781
8	2.961	0.792	2.988	0.778	1.574	0.338	3.011	0.000	3.002	2.885	3.314	3.154
9	1.123	2.258	0.053	3.742	1.539	3.322	0.047	3.002	0.000	0.277	6.196	2.819
10	1.347	2.119	0.225	3.642	1.366	3.214	0.321	2.885	0.277	0.000	6.128	2.998
11	5.819	4.103	6.193	2.537	4.879	2.976	6.196	3.314	6.196	6.128	0.000	5.071
12	1.733	3.002	2.859	3.446	2.996	3.264	2.781	3.154	2.819	2.998	5.071	0.000



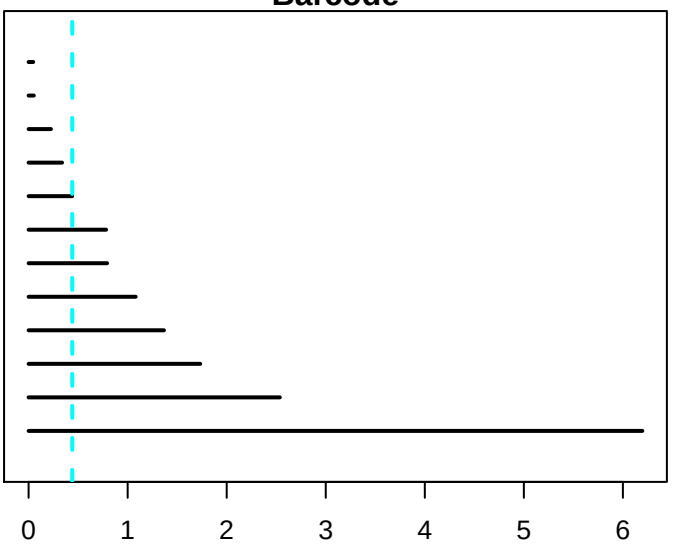
This is the 'Frame' at Euclidean distance = 0.44



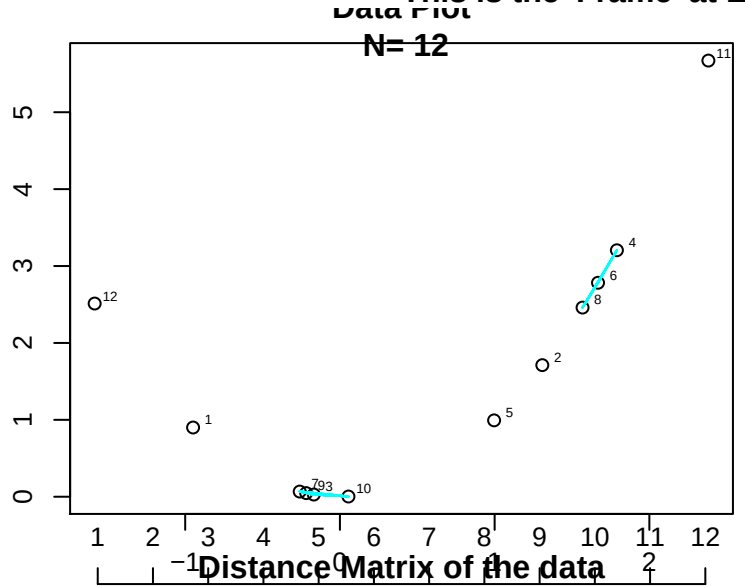


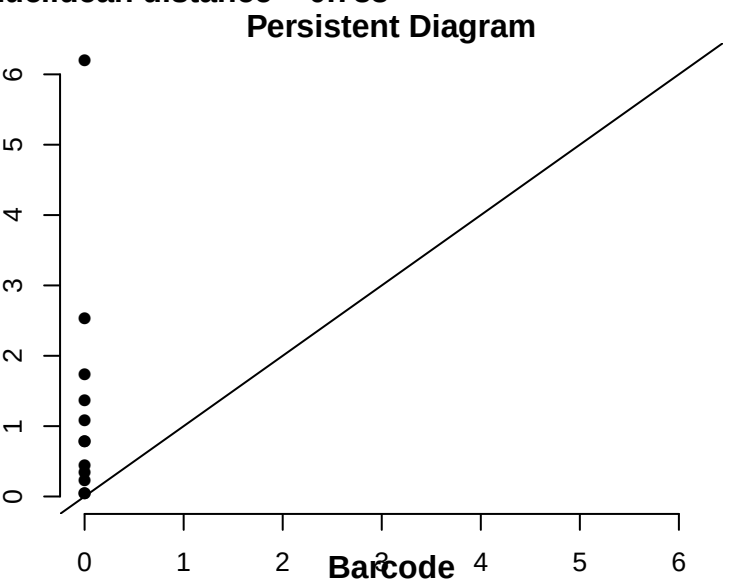
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	2.398	1.170	3.580	1.948	3.224	1.081	2.961	1.123	1.347	5.819	1.733
2	2.398	0.000	2.239	1.570	0.783	1.130	2.272	0.792	2.258	2.119	4.103	3.002
3	1.170	2.239	0.000	3.732	1.513	3.311	0.099	2.988	0.053	0.225	6.193	2.859
4	3.580	1.570	3.732	0.000	2.350	0.440	3.748	0.778	3.742	3.642	2.537	3.446
5	1.948	0.783	1.513	2.350	0.000	1.911	1.561	1.574	1.539	1.366	4.879	2.996
6	3.224	1.130	3.311	0.440	1.911	0.000	3.330	0.338	3.322	3.214	2.976	3.264
7	1.081	2.272	0.099	3.748	1.561	3.330	0.000	3.011	0.047	0.321	6.196	2.781
8	2.961	0.792	2.988	0.778	1.574	0.338	3.011	0.000	3.002	2.885	3.314	3.154
9	1.123	2.258	0.053	3.742	1.539	3.322	0.047	3.002	0.000	0.277	6.196	2.819
10	1.347	2.119	0.225	3.642	1.366	3.214	0.321	2.885	0.277	0.000	6.128	2.998
11	5.819	4.103	6.193	2.537	4.879	2.976	6.196	3.314	6.196	6.128	0.000	5.071
12	1.733	3.002	2.859	3.446	2.996	3.264	2.781	3.154	2.819	2.998	5.071	0.000



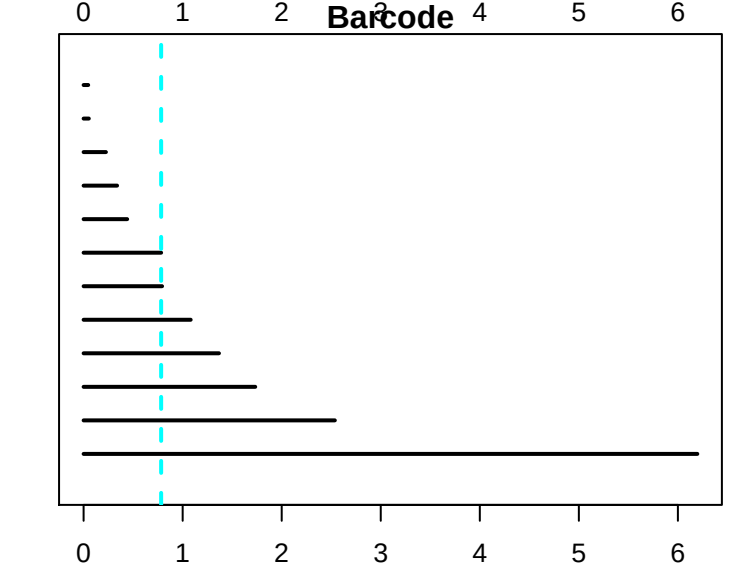
This is the 'Frame' at Euclidean distance = 0.783



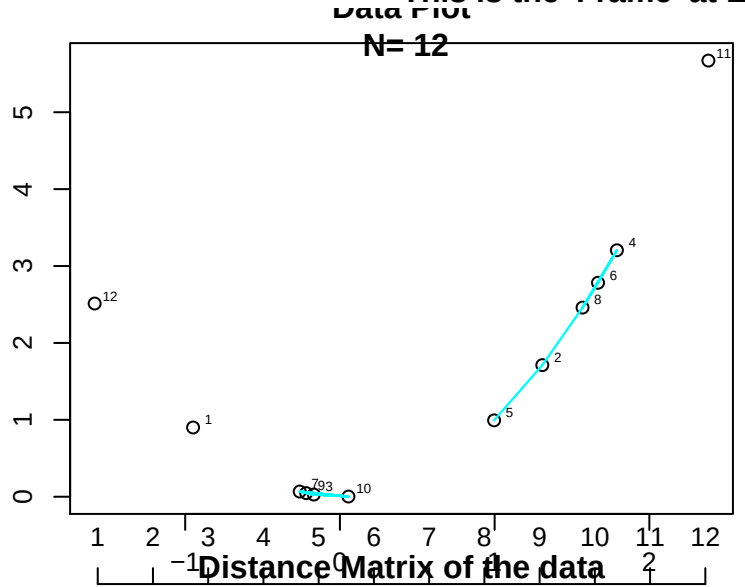


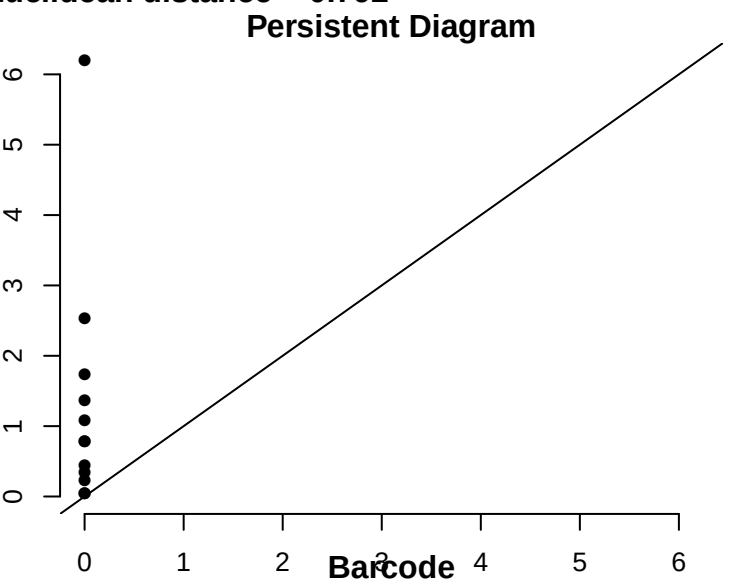
Distance Matrix of the data

1	0.000	2.398	1.170	3.580	1.948	3.224	1.081	2.961	1.123	1.347	5.819	1.733
2	2.398	0.000	2.239	1.570	0.783	1.130	2.272	0.792	2.258	2.119	4.103	3.002
3	1.170	2.239	0.000	3.732	1.513	3.311	0.099	2.988	0.053	0.225	6.193	2.859
4	3.580	1.570	3.732	0.000	2.350	0.440	3.748	0.778	3.742	3.642	2.537	3.446
5	1.948	0.783	1.513	2.350	0.000	1.911	1.561	1.574	1.539	1.366	4.879	2.996
6	3.224	1.130	3.311	0.440	1.911	0.000	3.330	0.338	3.322	3.214	2.976	3.264
7	1.081	2.272	0.099	3.748	1.561	3.330	0.000	3.011	0.047	0.321	6.196	2.781
8	2.961	0.792	2.988	0.778	1.574	0.338	3.011	0.000	3.002	2.885	3.314	3.154
10	1.123	2.258	0.053	3.742	1.539	3.322	0.047	3.002	0.000	0.277	6.196	2.819
10	1.347	2.119	0.225	3.642	1.366	3.214	0.321	2.885	0.277	0.000	6.128	2.998
12	5.819	4.103	6.193	2.537	4.879	2.976	6.196	3.314	6.196	6.128	0.000	5.071
12	1.733	3.002	2.859	3.446	2.996	3.264	2.781	3.154	2.819	2.998	5.071	0.000



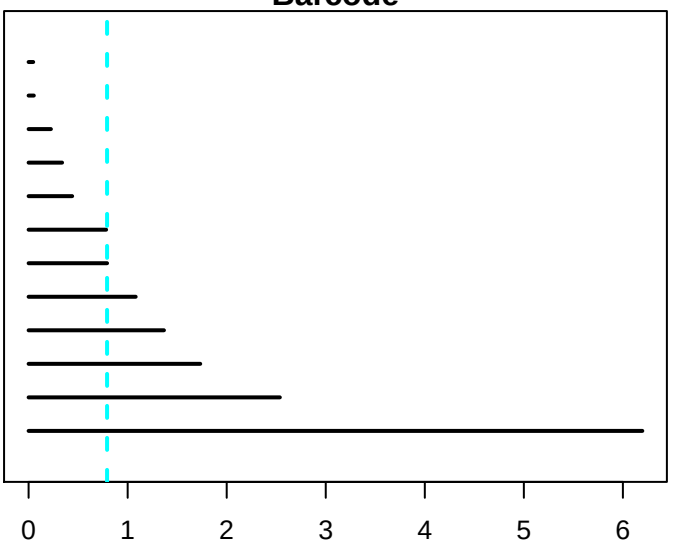
This is the 'Frame' at Euclidean distance = 0.792



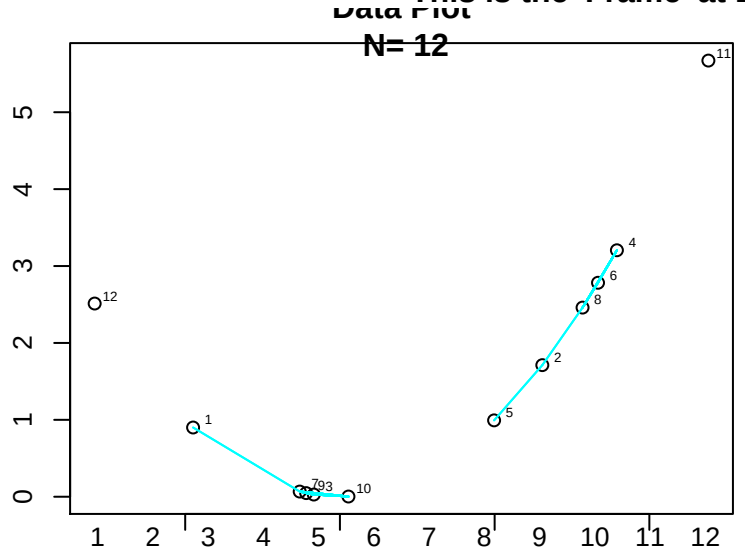


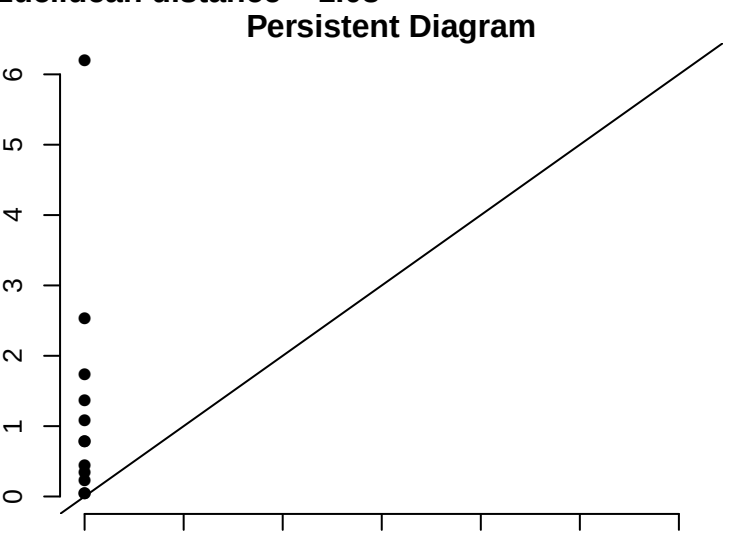
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	2.398	1.170	3.580	1.948	3.224	1.081	2.961	1.123	1.347	5.819	1.733
2	2.398	0.000	2.239	1.570	0.783	1.130	2.272	0.792	2.258	2.119	4.103	3.002
3	1.170	2.239	0.000	3.732	1.513	3.311	0.099	2.988	0.053	0.225	6.193	2.859
4	3.580	1.570	3.732	0.000	2.350	0.440	3.748	0.778	3.742	3.642	2.537	3.446
5	1.948	0.783	1.513	2.350	0.000	1.911	1.561	1.574	1.539	1.366	4.879	2.996
6	3.224	1.130	3.311	0.440	1.911	0.000	3.330	0.338	3.322	3.214	2.976	3.264
7	1.081	2.272	0.099	3.748	1.561	3.330	0.000	3.011	0.047	0.321	6.196	2.781
8	2.961	0.792	2.988	0.778	1.574	0.338	3.011	0.000	3.002	2.885	3.314	3.154
9	1.123	2.258	0.053	3.742	1.539	3.322	0.047	3.002	0.000	0.277	6.196	2.819
10	1.347	2.119	0.225	3.642	1.366	3.214	0.321	2.885	0.277	0.000	6.128	2.998
11	5.819	4.103	6.193	2.537	4.879	2.976	6.196	3.314	6.196	6.128	0.000	5.071
12	1.733	3.002	2.859	3.446	2.996	3.264	2.781	3.154	2.819	2.998	5.071	0.000



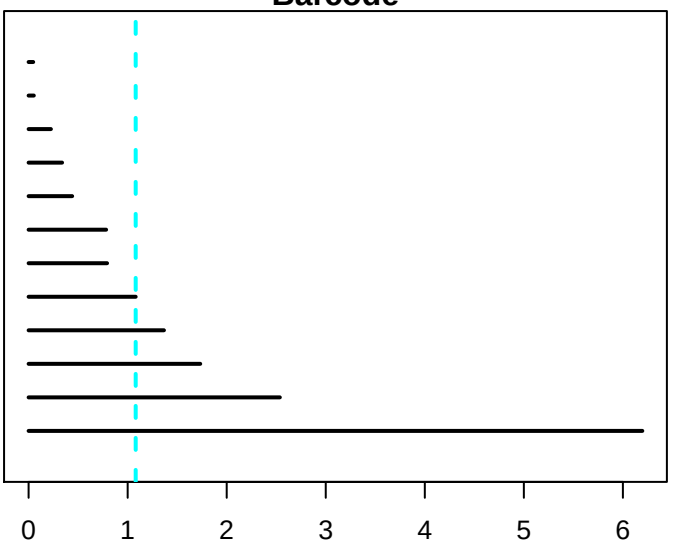
This is the 'Frame' at Euclidean distance = 1.08



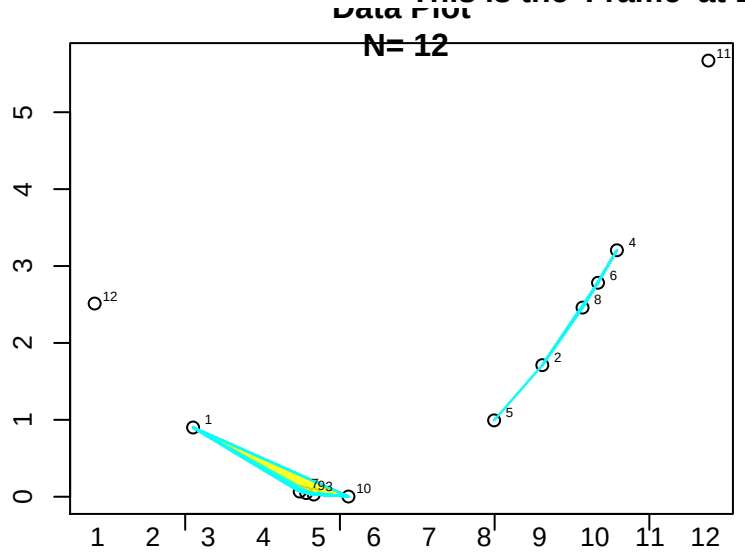


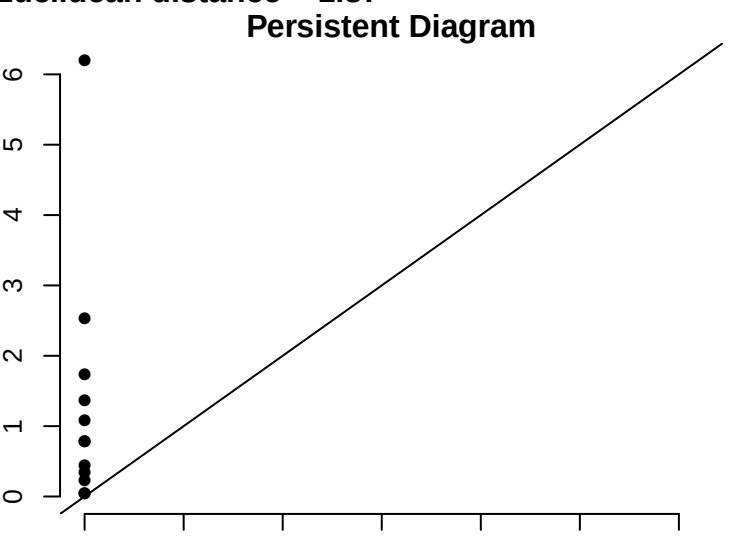
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	2.398	1.170	3.580	1.948	3.224	1.081	2.961	1.123	1.347	5.819	1.733
2	2.398	0.000	2.239	1.570	0.783	1.130	2.272	0.792	2.258	2.119	4.103	3.002
3	1.170	2.239	0.000	3.732	1.513	3.311	0.099	2.988	0.053	0.225	6.193	2.859
4	3.580	1.570	3.732	0.000	2.350	0.440	3.748	0.778	3.742	3.642	2.537	3.446
5	1.948	0.783	1.513	2.350	0.000	1.911	1.561	1.574	1.539	1.366	4.879	2.996
6	3.224	1.130	3.311	0.440	1.911	0.000	3.330	0.338	3.322	3.214	2.976	3.264
7	1.081	2.272	0.099	3.748	1.561	3.330	0.000	3.011	0.047	0.321	6.196	2.781
8	2.961	0.792	2.988	0.778	1.574	0.338	3.011	0.000	3.002	2.885	3.314	3.154
9	1.123	2.258	0.053	3.742	1.539	3.322	0.047	3.002	0.000	0.277	6.196	2.819
10	1.347	2.119	0.225	3.642	1.366	3.214	0.321	2.885	0.277	0.000	6.128	2.998
11	5.819	4.103	6.193	2.537	4.879	2.976	6.196	3.314	6.196	6.128	0.000	5.071
12	1.733	3.002	2.859	3.446	2.996	3.264	2.781	3.154	2.819	2.998	5.071	0.000



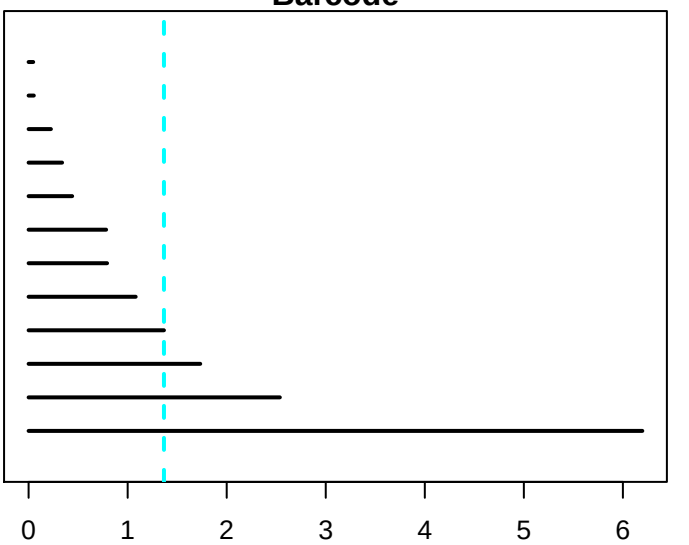
This is the 'Frame' at Euclidean distance = 1.37



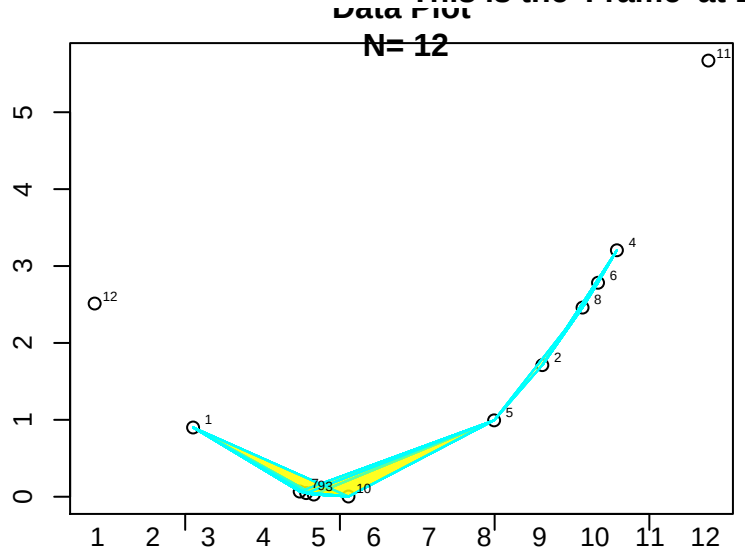


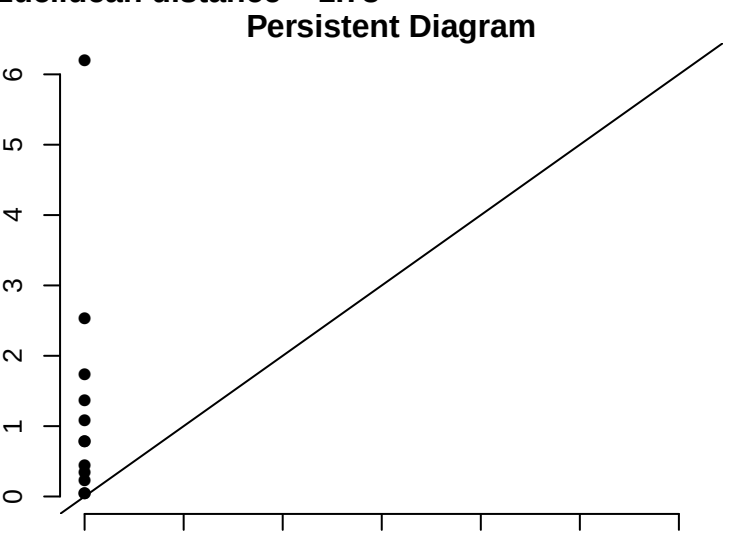
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	2.398	1.170	3.580	1.948	3.224	1.081	2.961	1.123	1.347	5.819	1.733
2	2.398	0.000	2.239	1.570	0.783	1.130	2.272	0.792	2.258	2.119	4.103	3.002
3	1.170	2.239	0.000	3.732	1.513	3.311	0.099	2.988	0.053	0.225	6.193	2.859
4	3.580	1.570	3.732	0.000	2.350	0.440	3.748	0.778	3.742	3.642	2.537	3.446
5	1.948	0.783	1.513	2.350	0.000	1.911	1.561	1.574	1.539	1.366	4.879	2.996
6	3.224	1.130	3.311	0.440	1.911	0.000	3.330	0.338	3.322	3.214	2.976	3.264
7	1.081	2.272	0.099	3.748	1.561	3.330	0.000	3.011	0.047	0.321	6.196	2.781
8	2.961	0.792	2.988	0.778	1.574	0.338	3.011	0.000	3.002	2.885	3.314	3.154
10	1.123	2.258	0.053	3.742	1.539	3.322	0.047	3.002	0.000	0.277	6.196	2.819
12	1.347	2.119	0.225	3.642	1.366	3.214	0.321	2.885	0.277	0.000	6.128	2.998
	5.819	4.103	6.193	2.537	4.879	2.976	6.196	3.314	6.196	6.128	0.000	5.071
	1.733	3.002	2.859	3.446	2.996	3.264	2.781	3.154	2.819	2.998	5.071	0.000



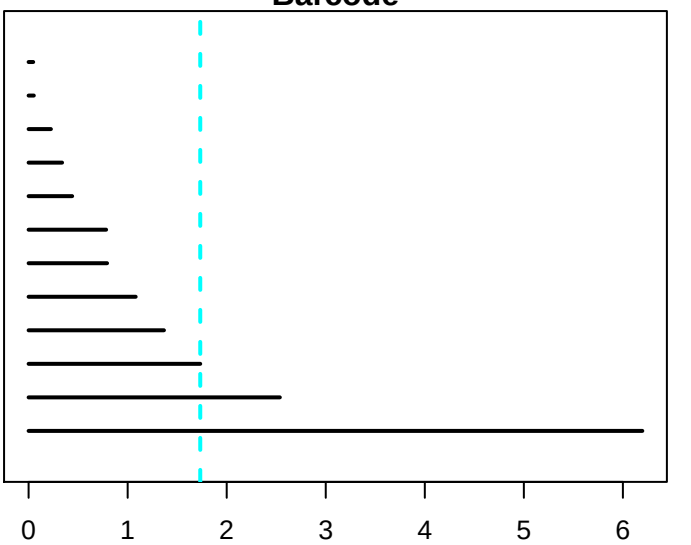
This is the 'Frame' at Euclidean distance = 1.73



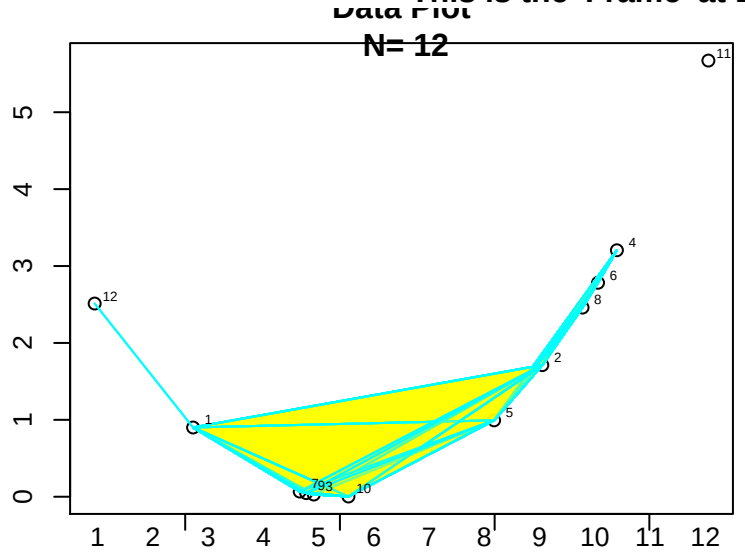


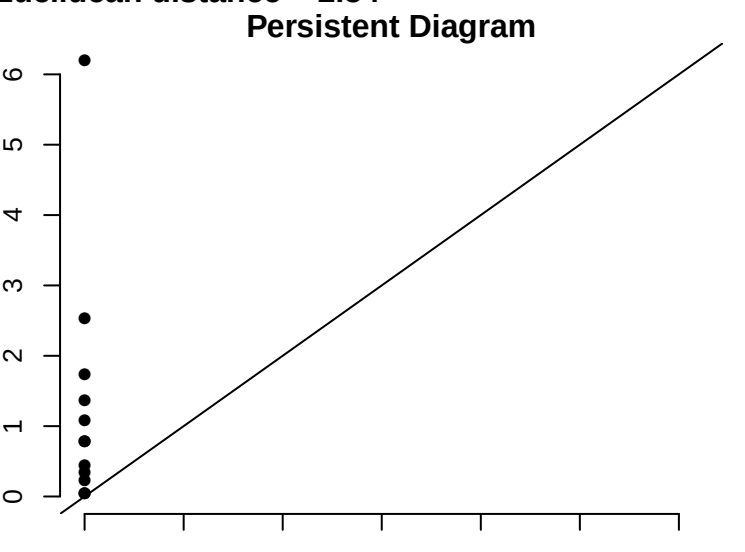
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	2.398	1.170	3.580	1.948	3.224	1.081	2.961	1.123	1.347	5.819	1.733
2	2.398	0.000	2.239	1.570	0.783	1.130	2.272	0.792	2.258	2.119	4.103	3.002
3	1.170	2.239	0.000	3.732	1.513	3.311	0.099	2.988	0.053	0.225	6.193	2.859
4	3.580	1.570	3.732	0.000	2.350	0.440	3.748	0.778	3.742	3.642	2.537	3.446
5	1.948	0.783	1.513	2.350	0.000	1.911	1.561	1.574	1.539	1.366	4.879	2.996
6	3.224	1.130	3.311	0.440	1.911	0.000	3.330	0.338	3.322	3.214	2.976	3.264
7	1.081	2.272	0.099	3.748	1.561	3.330	0.000	3.011	0.047	0.321	6.196	2.781
8	2.961	0.792	2.988	0.778	1.574	0.338	3.011	0.000	3.002	2.885	3.314	3.154
9	1.123	2.258	0.053	3.742	1.539	3.322	0.047	3.002	0.000	0.277	6.196	2.819
10	1.347	2.119	0.225	3.642	1.366	3.214	0.321	2.885	0.277	0.000	6.128	2.998
11	5.819	4.103	6.193	2.537	4.879	2.976	6.196	3.314	6.196	6.128	0.000	5.071
12	1.733	3.002	2.859	3.446	2.996	3.264	2.781	3.154	2.819	2.998	5.071	0.000



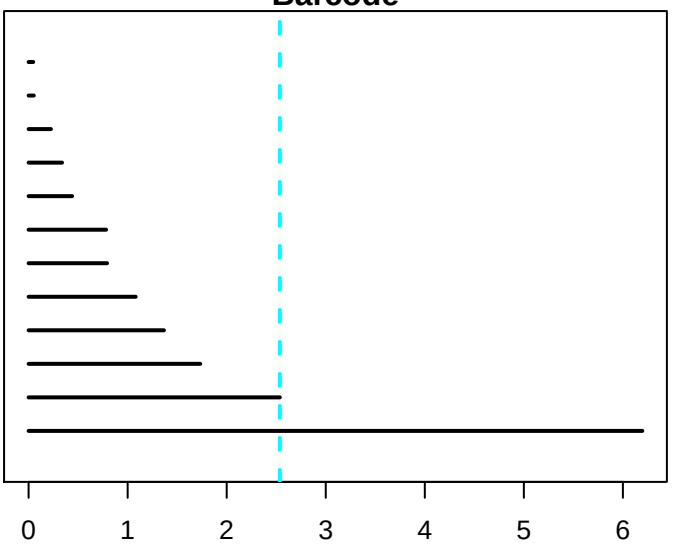
This is the 'Frame' at Euclidean distance = 2.54

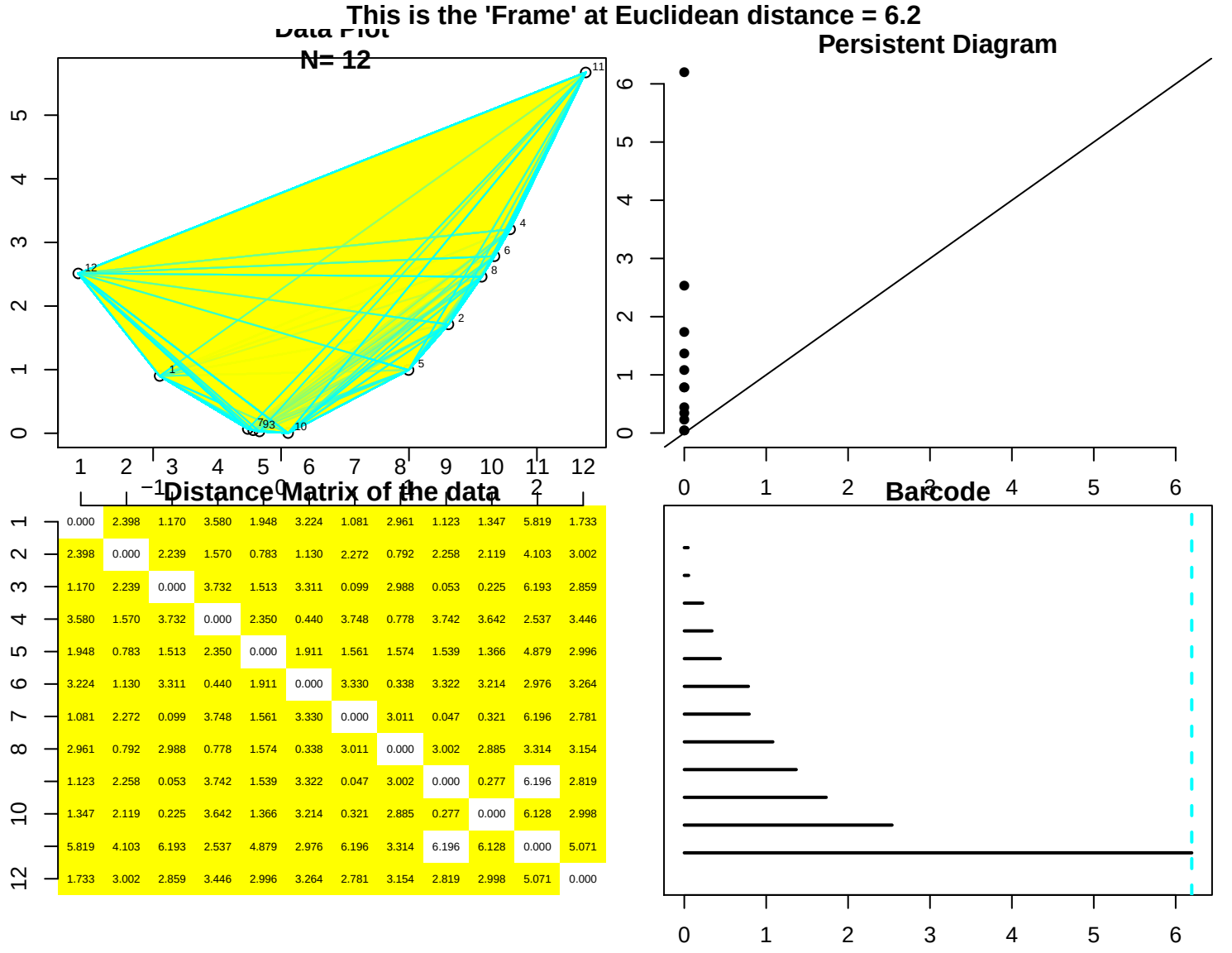




Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12
1	0.000	2.398	1.170	3.580	1.948	3.224	1.081	2.961	1.123	1.347	5.819	1.733
2	2.398	0.000	2.239	1.570	0.783	1.130	2.272	0.792	2.258	2.119	4.103	3.002
3	1.170	2.239	0.000	3.732	1.513	3.311	0.099	2.988	0.053	0.225	6.193	2.859
4	3.580	1.570	3.732	0.000	2.350	0.440	3.748	0.778	3.742	3.642	2.537	3.446
5	1.948	0.783	1.513	2.350	0.000	1.911	1.561	1.574	1.539	1.366	4.879	2.996
6	3.224	1.130	3.311	0.440	1.911	0.000	3.330	0.338	3.322	3.214	2.976	3.264
7	1.081	2.272	0.099	3.748	1.561	3.330	0.000	3.011	0.047	0.321	6.196	2.781
8	2.961	0.792	2.988	0.778	1.574	0.338	3.011	0.000	3.002	2.885	3.314	3.154
10	1.123	2.258	0.053	3.742	1.539	3.322	0.047	3.002	0.000	0.277	6.196	2.819
12	1.347	2.119	0.225	3.642	1.366	3.214	0.321	2.885	0.277	0.000	6.128	2.998
	5.819	4.103	6.193	2.537	4.879	2.976	6.196	3.314	6.196	6.128	0.000	5.071
	1.733	3.002	2.859	3.446	2.996	3.264	2.781	3.154	2.819	2.998	5.071	0.000




This is the 'Frame' at Euclidean distance = 6.2
Data Plot
N= 12
Persistent Diagram
Distance Matrix of the data
Barcode