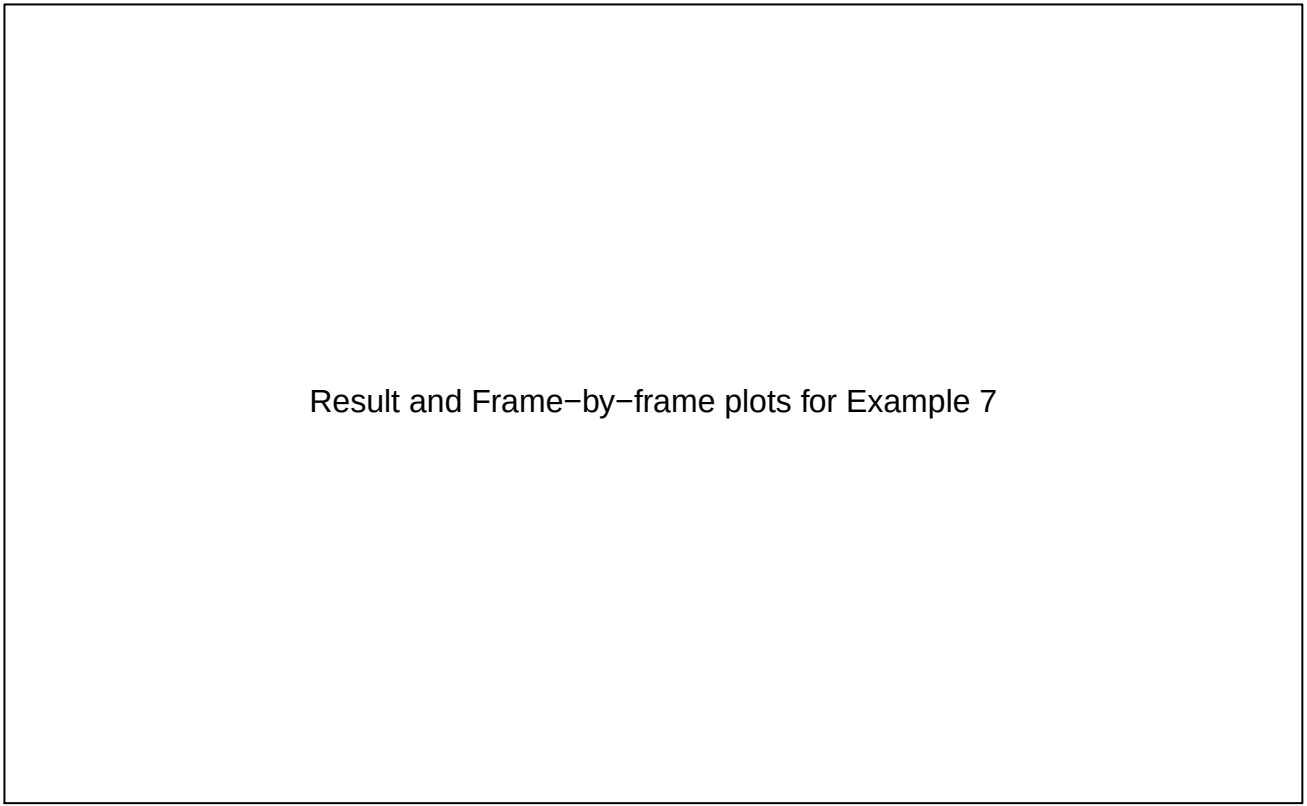
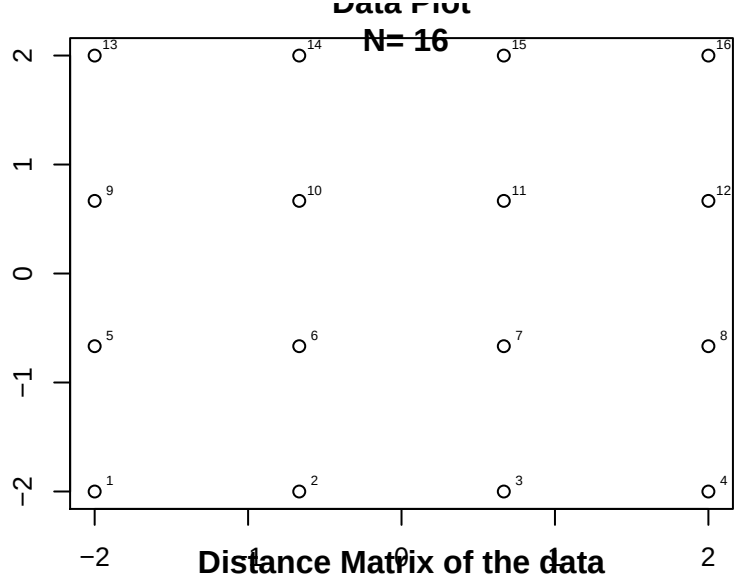
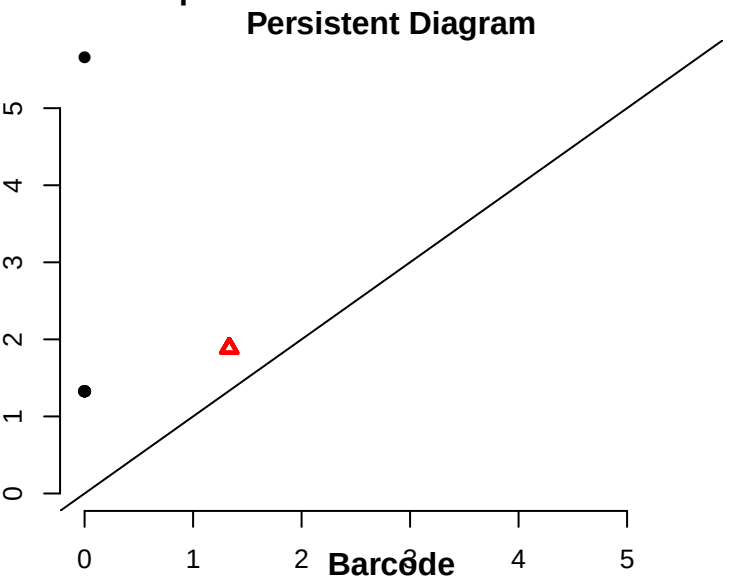

Result and Frame−by−frame plots for Example 7

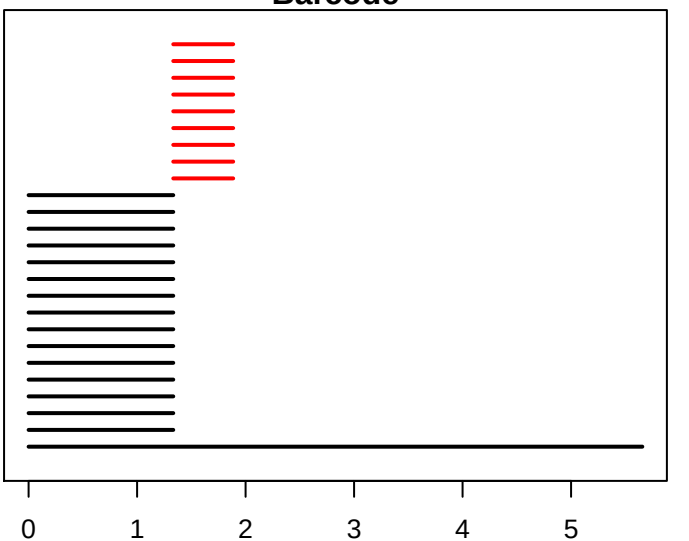
Ex7. Full 2−dim Grid with space 1



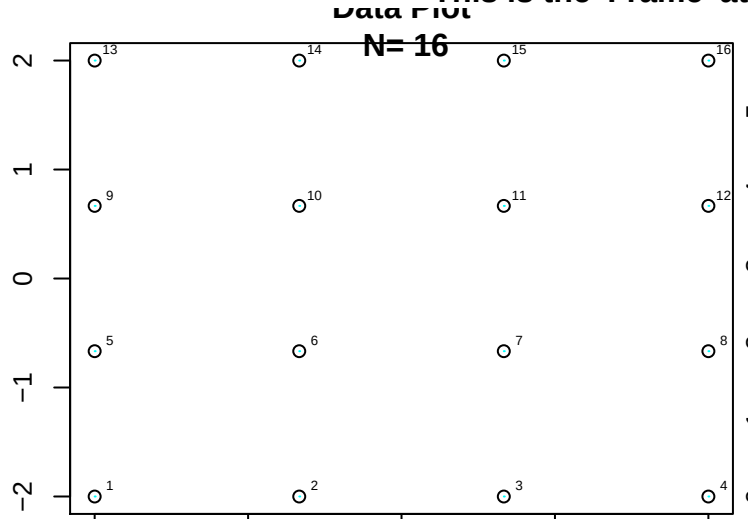


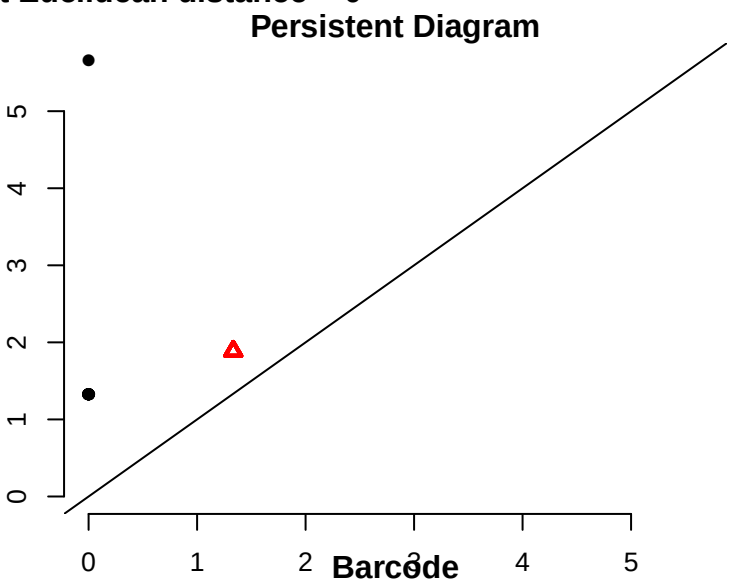
Distance Matrix of the data

0.000	1.333	2.667	4.000	1.333	1.886	2.981	4.216	2.667	2.981	3.771	4.807	4.000	4.216	4.807	5.657
1.333	0.000	1.333	2.667	1.886	1.333	1.886	2.981	2.981	2.667	2.981	3.771	4.216	4.000	4.216	4.807
2.667	1.333	0.000	1.333	2.981	1.886	1.333	1.886	3.771	2.981	2.667	2.981	4.807	4.216	4.000	4.216
4.000	2.667	1.333	0.000	4.216	2.981	1.886	1.333	4.807	3.771	2.981	2.667	5.657	4.807	4.216	4.000
1.333	1.886	2.981	4.216	0.000	1.333	2.667	4.000	1.333	1.886	2.981	4.216	2.667	2.981	3.771	4.807
1.886	1.333	1.886	2.981	1.333	0.000	1.333	2.667	1.886	1.333	1.886	2.981	2.981	2.667	2.981	3.771
2.981	1.886	1.333	1.886	2.667	1.333	0.000	1.333	2.981	1.886	1.333	1.886	3.771	2.981	2.667	2.981
4.216	2.981	1.886	1.333	4.000	2.667	1.333	0.000	4.216	2.981	1.886	1.333	4.807	3.771	2.981	2.667
2.667	2.981	3.771	4.807	1.333	1.886	2.981	4.216	0.000	1.333	2.667	4.000	1.333	1.886	2.981	4.216
2.981	2.667	2.981	3.771	1.886	1.333	1.886	2.981	1.333	0.000	1.333	2.667	1.886	1.333	1.886	2.981
3.771	2.981	2.667	2.981	2.981	1.886	1.333	1.886	2.667	1.333	0.000	1.333	2.981	1.886	1.333	1.886
4.807	3.771	2.981	2.667	4.216	2.981	1.886	1.333	4.000	2.667	1.333	0.000	4.216	2.981	1.886	1.333
4.000	4.216	4.807	5.657	2.667	2.981	3.771	4.807	1.333	1.886	2.981	4.216	0.000	1.333	2.667	4.000
4.216	4.000	4.216	4.807	2.981	2.667	2.981	3.771	1.886	1.333	1.886	2.981	1.333	0.000	1.333	2.667
4.807	4.216	4.000	4.216	3.771	2.981	2.667	2.981	2.981	1.886	1.333	1.886	2.667	1.333	0.000	1.333
5.657	4.807	4.216	4.000	4.807	3.771	2.981	2.667	4.216	2.981	1.886	1.333	4.000	2.667	1.333	0.000



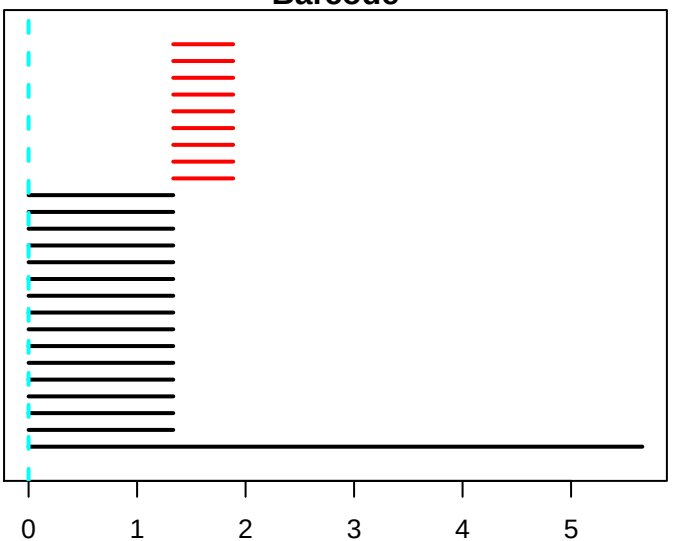
This is the 'Frame' at Euclidean distance = 0

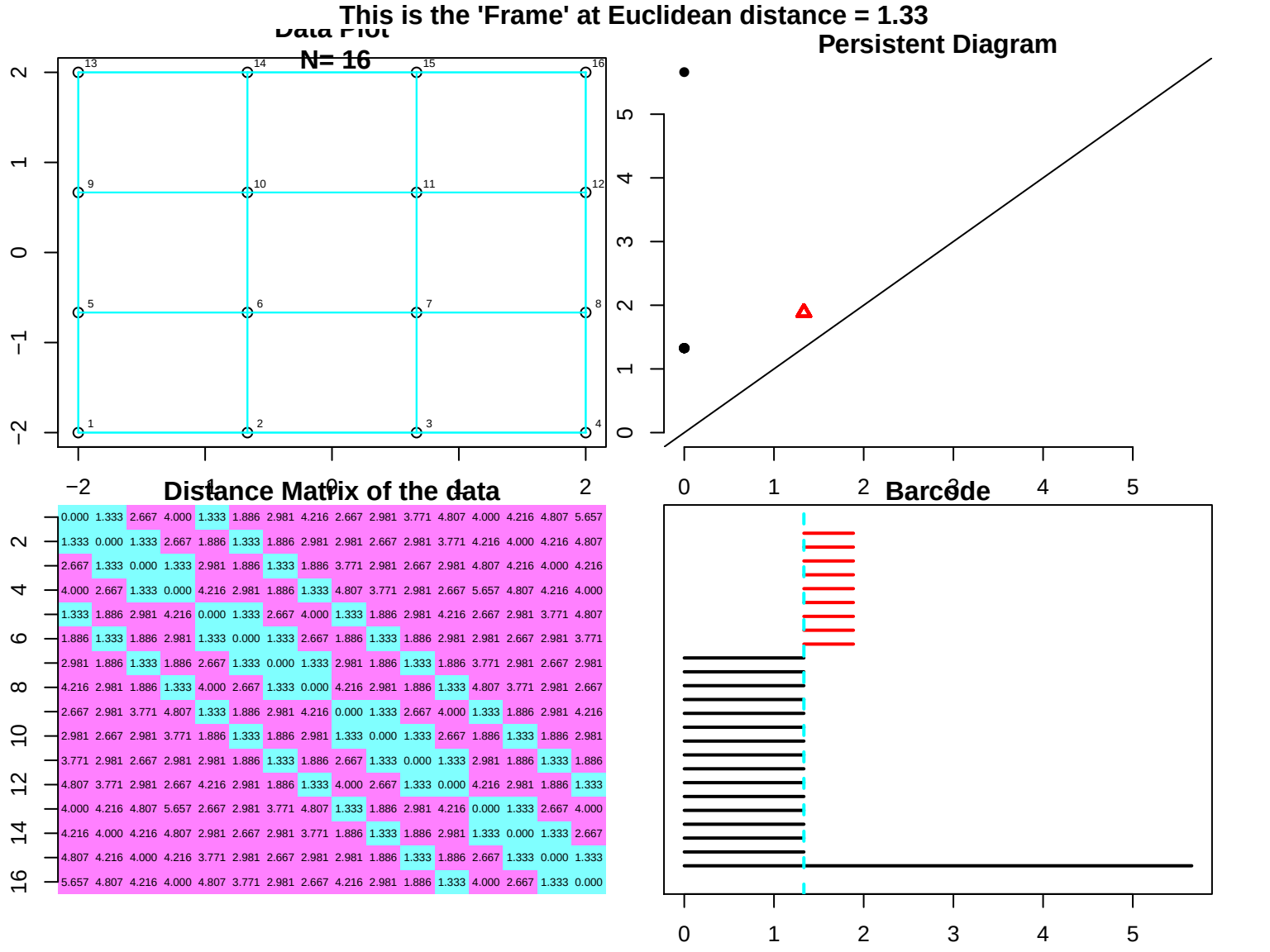


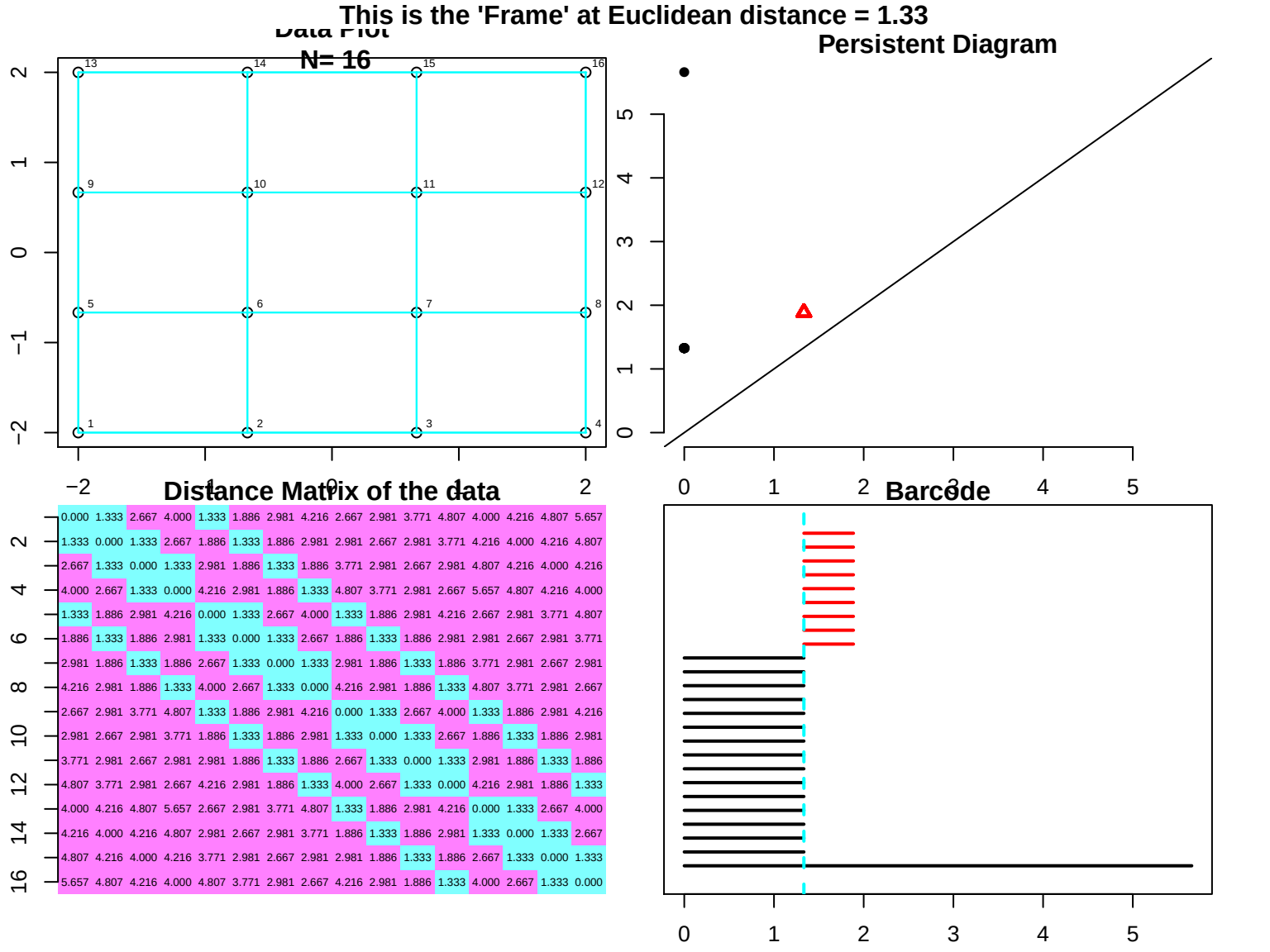


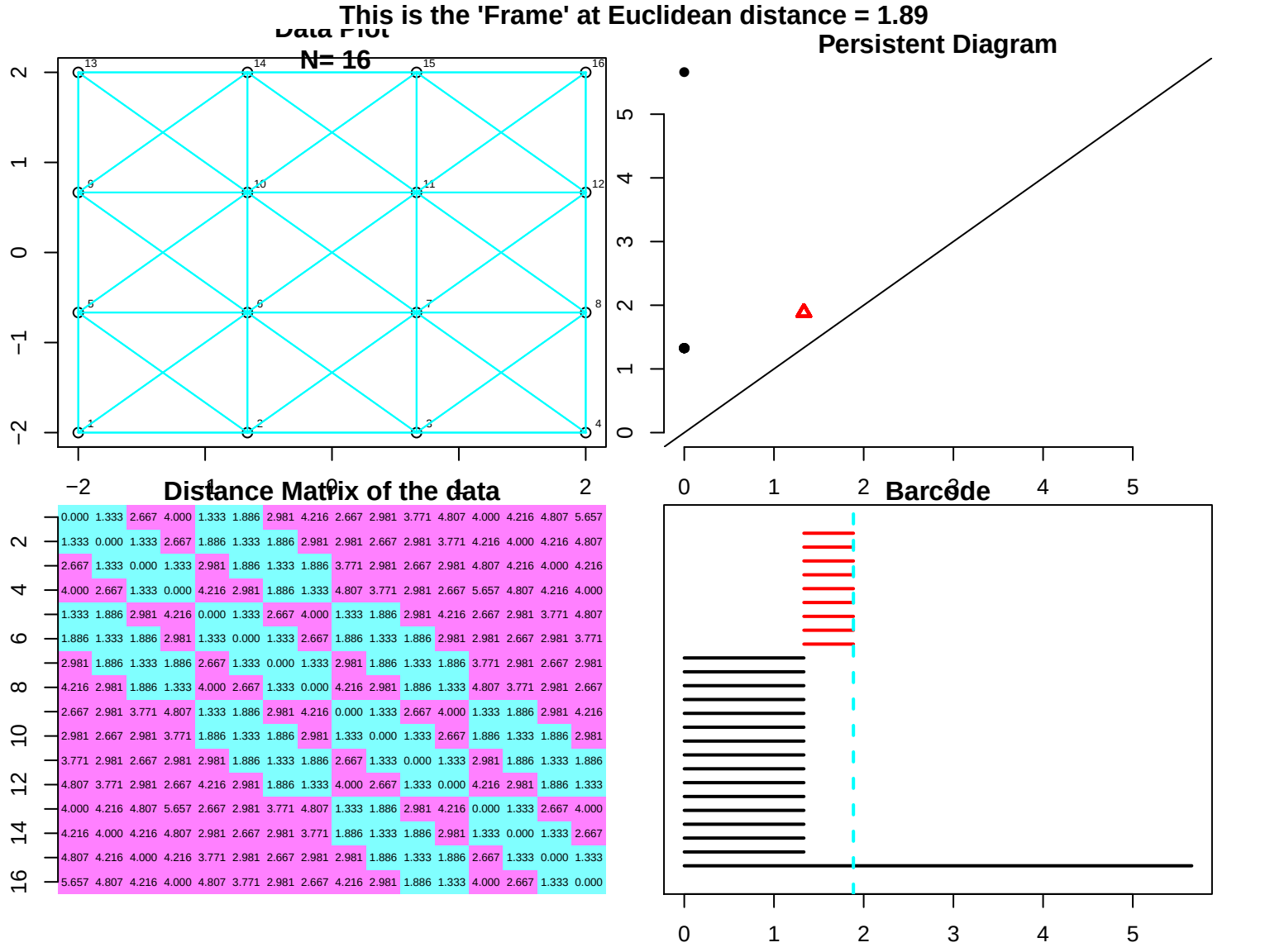
Distance Matrix of the data

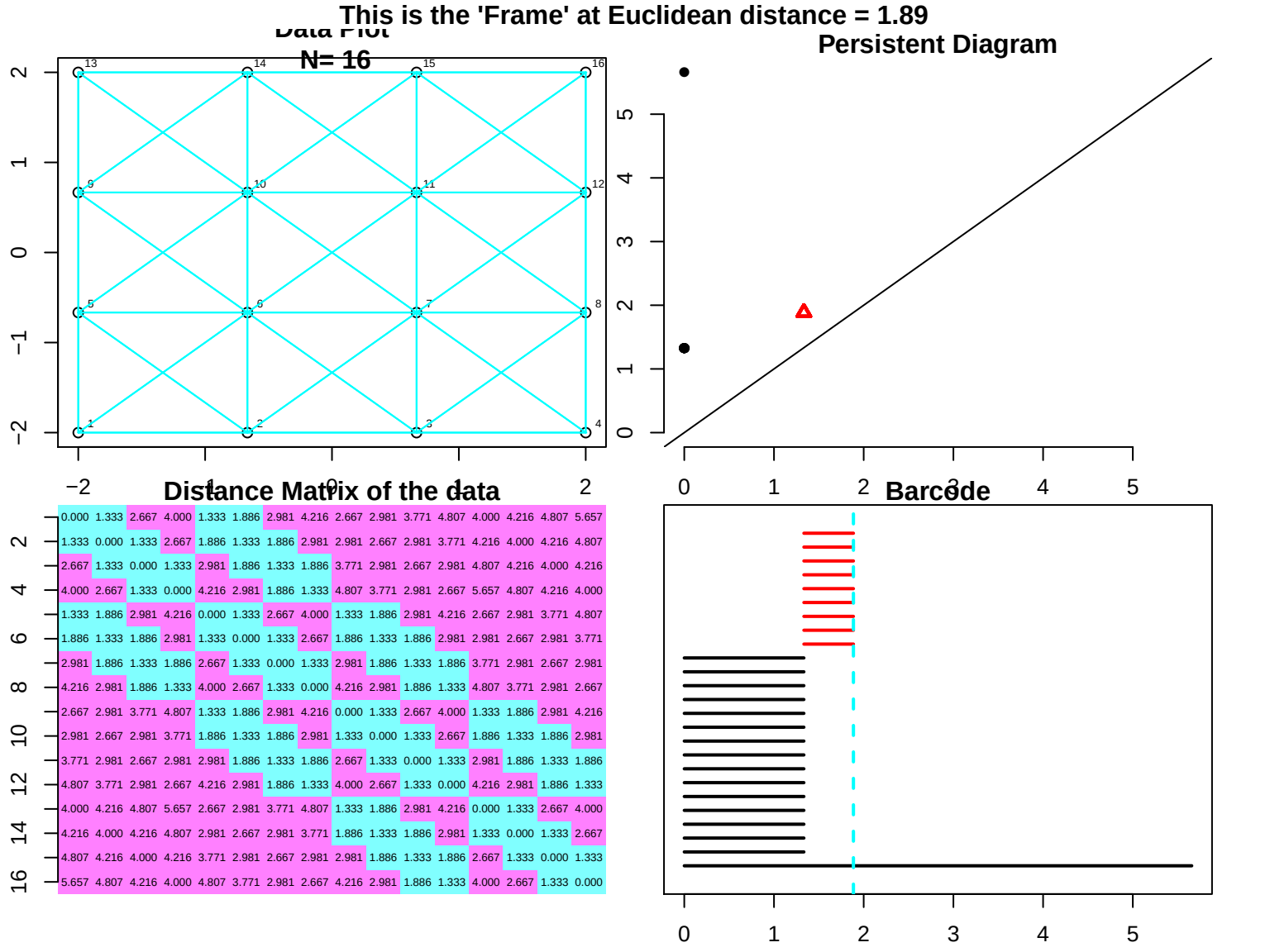
2	0.000	1.333	2.667	4.000	1.333	1.886	2.981	4.216	2.667	2.981	3.771	4.807	4.000	4.216	4.807	5.657
	1.333	0.000	1.333	2.667	1.886	1.333	1.886	2.981	2.981	2.667	2.981	3.771	4.216	4.000	4.216	4.807
	2.667	1.333	0.000	1.333	2.981	1.886	1.333	1.886	3.771	2.981	2.667	2.981	4.807	4.216	4.000	4.216
4	4.000	2.667	1.333	0.000	4.216	2.981	1.886	1.333	4.807	3.771	2.981	2.667	5.657	4.807	4.216	4.000
	1.333	1.886	2.981	4.216	0.000	1.333	2.667	4.000	1.333	1.886	2.981	4.216	2.667	2.981	3.771	4.807
6	1.886	1.333	1.886	2.981	1.333	0.000	1.333	2.667	1.886	1.333	1.886	2.981	2.981	2.667	2.981	3.771
	2.981	1.886	1.333	1.886	2.667	1.333	0.000	1.333	2.981	1.886	1.333	1.886	3.771	2.981	2.667	2.981
8	4.216	2.981	1.886	1.333	4.000	2.667	1.333	0.000	4.216	2.981	1.886	1.333	4.807	3.771	2.981	2.667
	2.667	2.981	3.771	4.807	1.333	1.886	2.981	4.216	0.000	1.333	2.667	4.000	1.333	1.886	2.981	4.216
10	2.981	2.667	2.981	3.771	1.886	1.333	1.886	2.981	1.333	0.000	1.333	2.667	1.886	1.333	1.886	2.981
	3.771	2.981	2.667	2.981	2.981	1.886	1.333	1.886	2.667	1.333	0.000	1.333	2.981	1.886	1.333	1.886
12	4.807	3.771	2.981	2.667	4.216	2.981	1.886	1.333	4.000	2.667	1.333	0.000	4.216	2.981	1.886	1.333
	4.000	4.216	4.807	5.657	2.667	2.981	3.771	4.807	1.333	1.886	2.981	4.216	0.000	1.333	2.667	4.000
14	4.216	4.000	4.216	4.807	2.981	2.667	2.981	3.771	1.886	1.333	1.886	2.981	1.333	0.000	1.333	2.667
	4.807	4.216	4.000	4.216	3.771	2.981	2.667	2.981	2.981	1.886	1.333	1.886	2.667	1.333	0.000	1.333
16	5.657	4.807	4.216	4.000	4.807	3.771	2.981	2.667	4.216	2.981	1.886	1.333	4.000	2.667	1.333	0.000



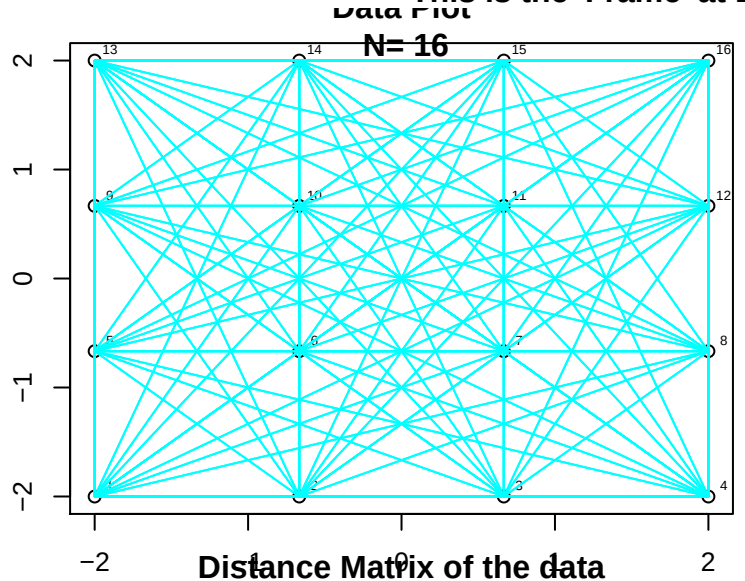

This is the 'Frame' at Euclidean distance = 1.33
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode

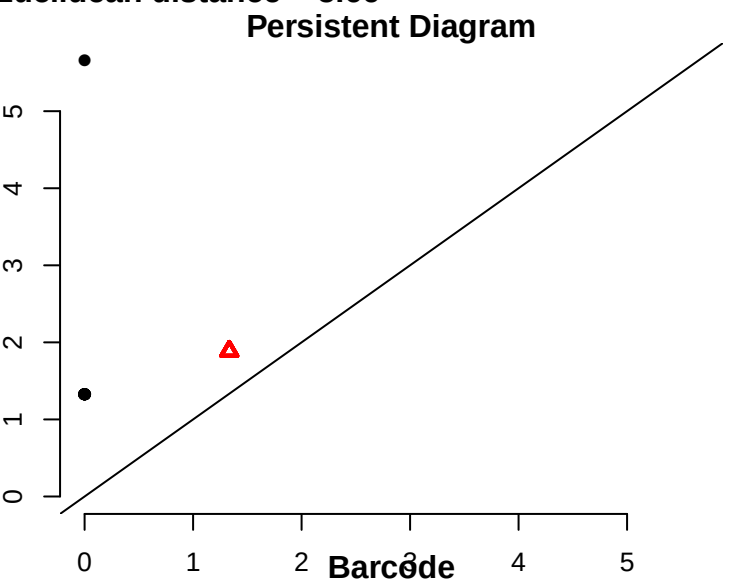

This is the 'Frame' at Euclidean distance = 1.33
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode


This is the 'Frame' at Euclidean distance = 1.89
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode


This is the 'Frame' at Euclidean distance = 1.89
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode

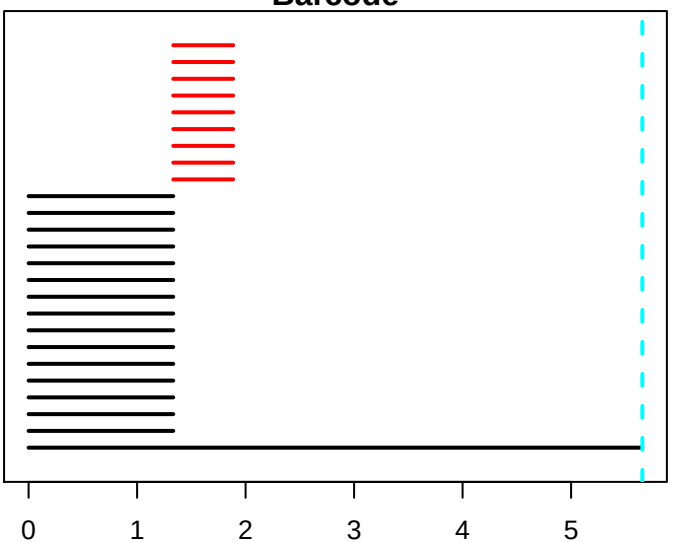
This is the 'Frame' at Euclidean distance = 5.66





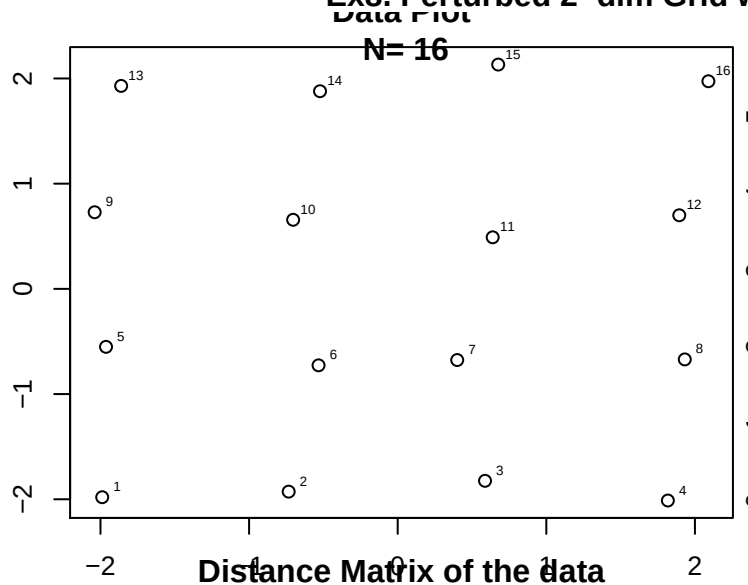
Distance Matrix of the data

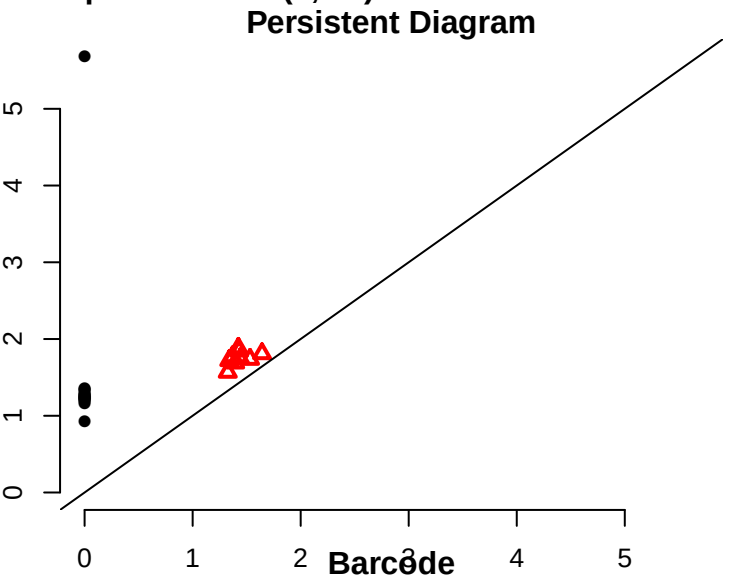
0.000	1.333	2.667	4.000	1.333	1.886	2.981	4.216	2.667	2.981	3.771	4.807	4.000	4.216	4.807	5.657
1.333	0.000	1.333	2.667	1.886	1.333	1.886	2.981	2.981	2.667	2.981	3.771	4.216	4.000	4.216	4.807
2.667	1.333	0.000	1.333	2.981	1.886	1.333	1.886	3.771	2.981	2.667	2.981	4.807	4.216	4.000	4.216
4.000	2.667	1.333	0.000	4.216	2.981	1.886	1.333	4.807	3.771	2.981	2.667	5.657	4.807	4.216	4.000
1.333	1.886	2.981	4.216	0.000	1.333	2.667	4.000	1.333	1.886	2.981	4.216	2.667	2.981	3.771	4.807
1.886	1.333	1.886	2.981	1.333	0.000	1.333	2.667	1.886	1.333	1.886	2.981	2.981	2.667	2.981	3.771
2.981	1.886	1.333	1.886	2.667	1.333	0.000	1.333	2.981	1.886	1.333	1.886	3.771	2.981	2.667	2.981
4.216	2.981	1.886	1.333	4.000	2.667	1.333	0.000	4.216	2.981	1.886	1.333	4.807	3.771	2.981	2.667
2.667	2.981	3.771	4.807	1.333	1.886	2.981	4.216	0.000	1.333	2.667	4.000	1.333	1.886	2.981	4.216
2.981	2.667	2.981	3.771	1.886	1.333	1.886	2.981	1.333	0.000	1.333	2.667	1.886	1.333	1.886	2.981
3.771	2.981	2.667	2.981	2.981	1.886	1.333	1.886	2.667	1.333	0.000	1.333	2.981	1.886	1.333	1.886
4.807	3.771	2.981	2.667	4.216	2.981	1.886	1.333	4.000	2.667	1.333	0.000	4.216	2.981	1.886	1.333
4.000	4.216	4.807	5.657	2.667	2.981	3.771	4.807	1.333	1.886	2.981	4.216	0.000	1.333	2.667	4.000
4.216	4.000	4.216	4.807	2.981	2.667	2.981	3.771	1.886	1.333	1.886	2.981	1.333	0.000	1.333	2.667
4.807	4.216	4.000	4.216	3.771	2.981	2.667	2.981	2.981	1.886	1.333	1.886	2.667	1.333	0.000	1.333
5.657	4.807	4.216	4.000	4.807	3.771	2.981	2.667	4.216	2.981	1.886	1.333	4.000	2.667	1.333	0.000



Result and Frame−by−frame plots for Example 8

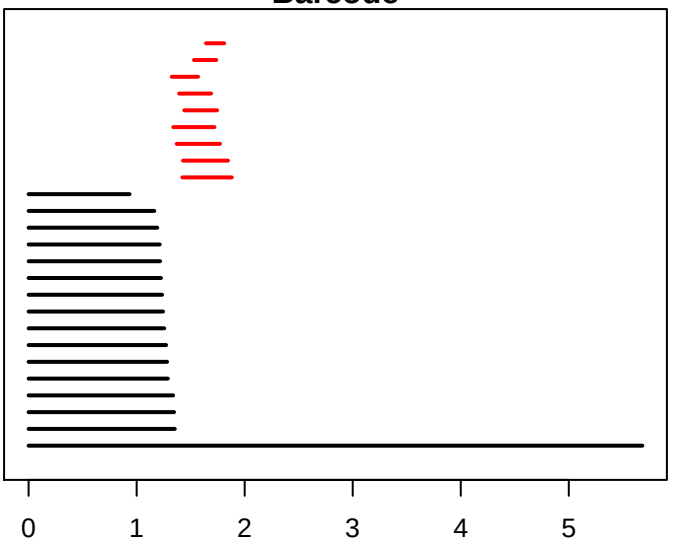
Ex8. Perturbed 2−dim Grid with space 1 and N(0,.01) noise



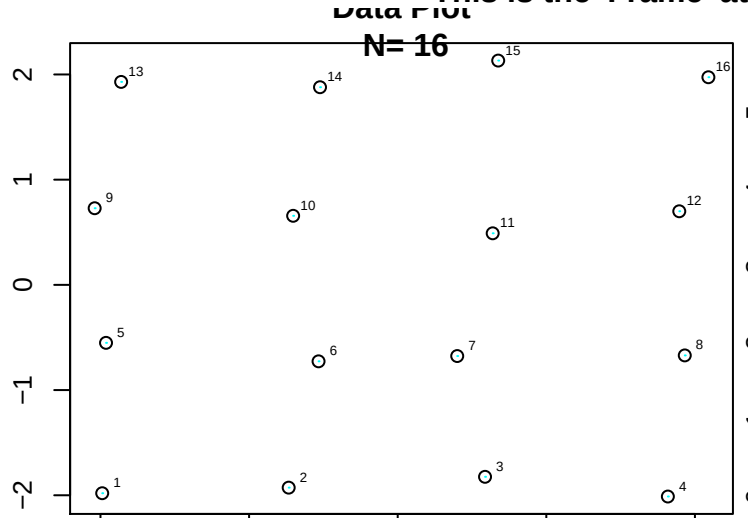


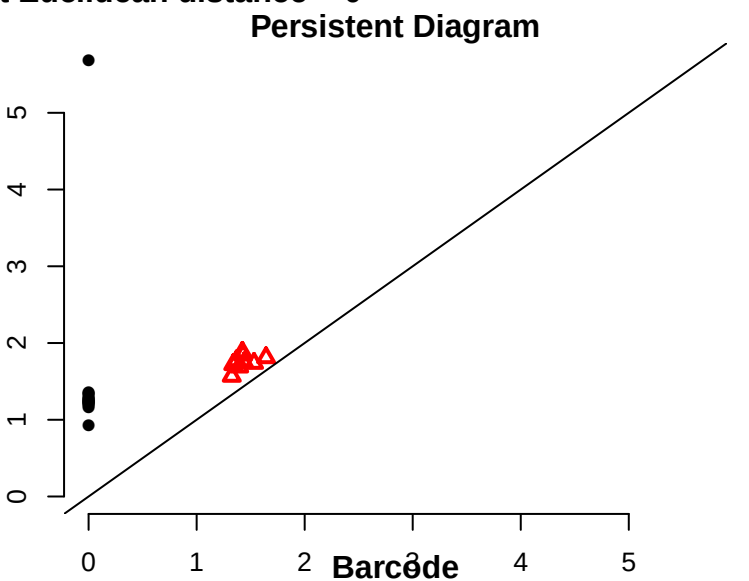
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



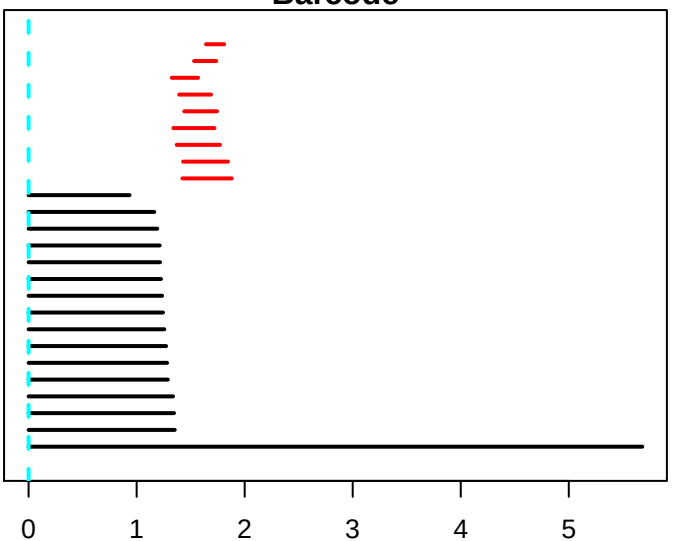
This is the 'Frame' at Euclidean distance = 0



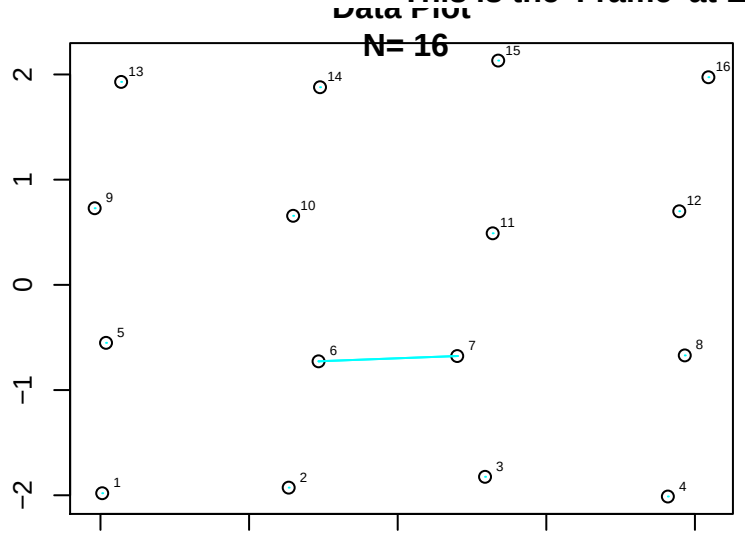


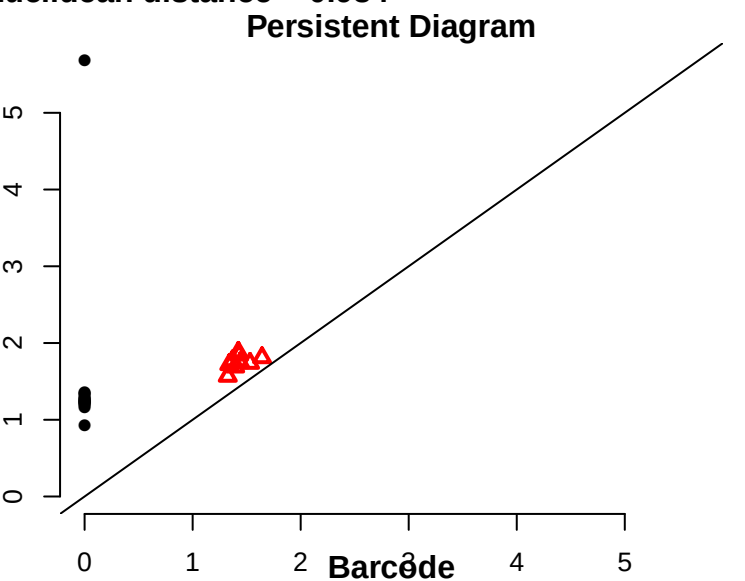
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



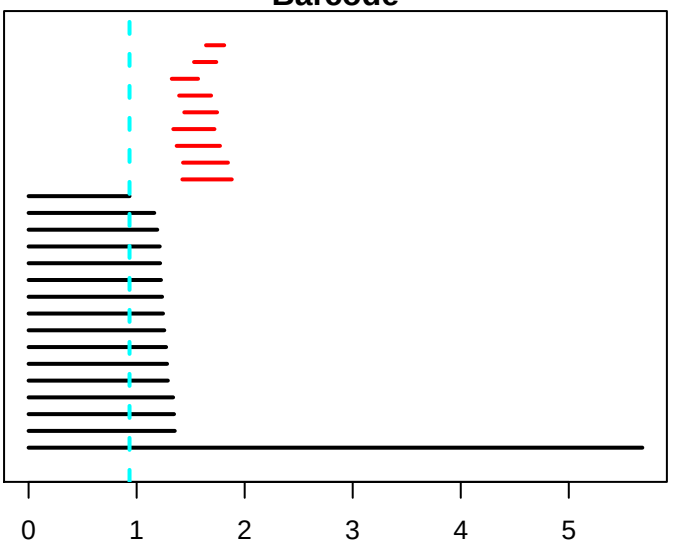
This is the 'Frame' at Euclidean distance = 0.934



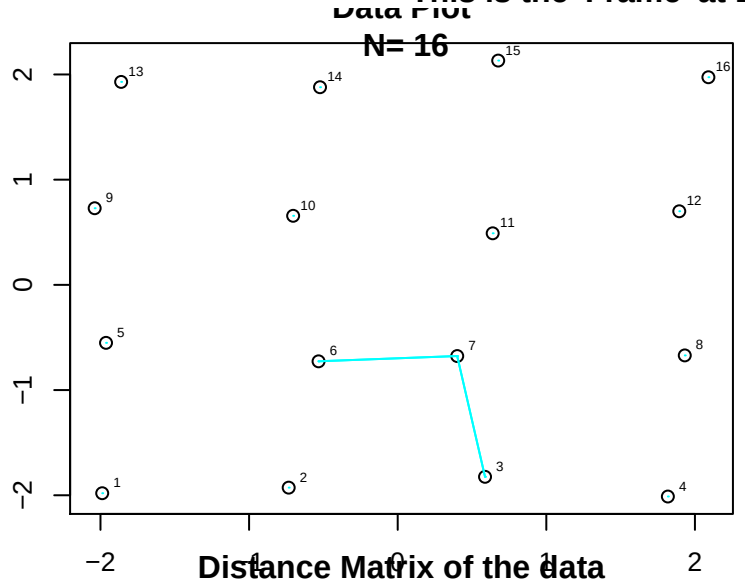


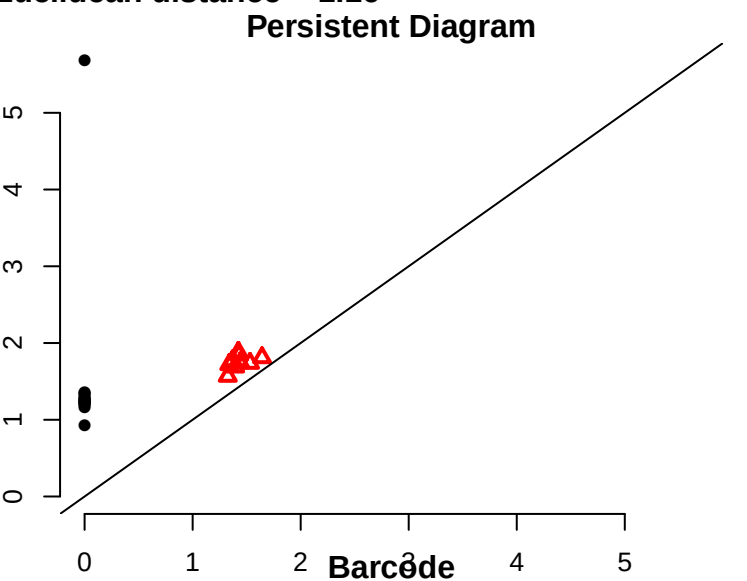
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



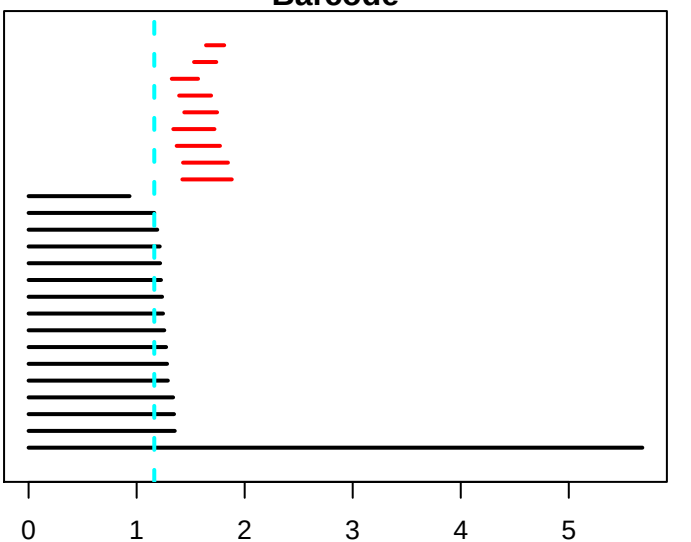
This is the 'Frame' at Euclidean distance = 1.16



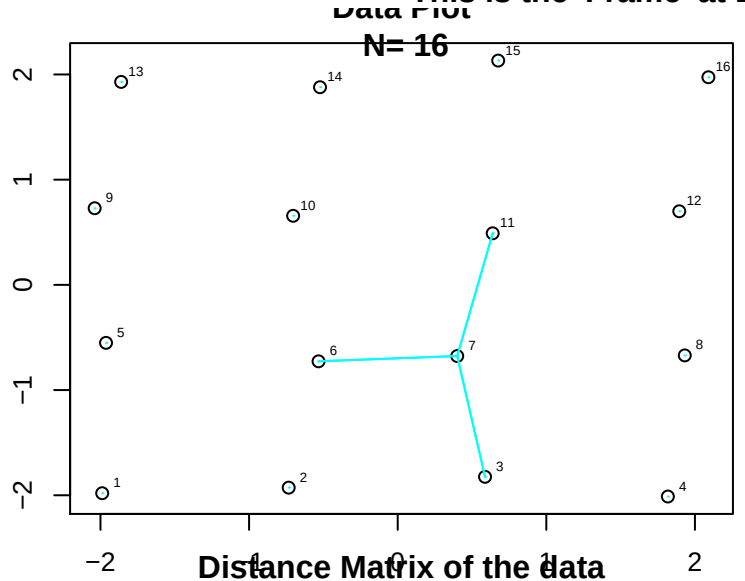


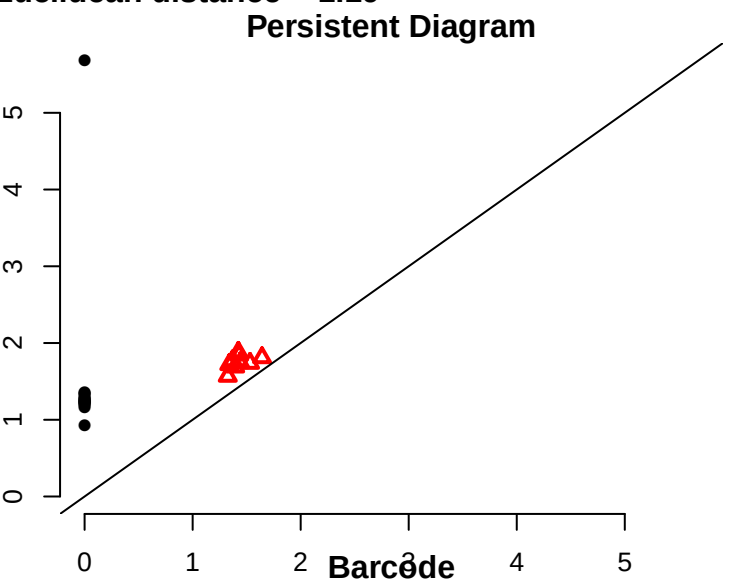
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



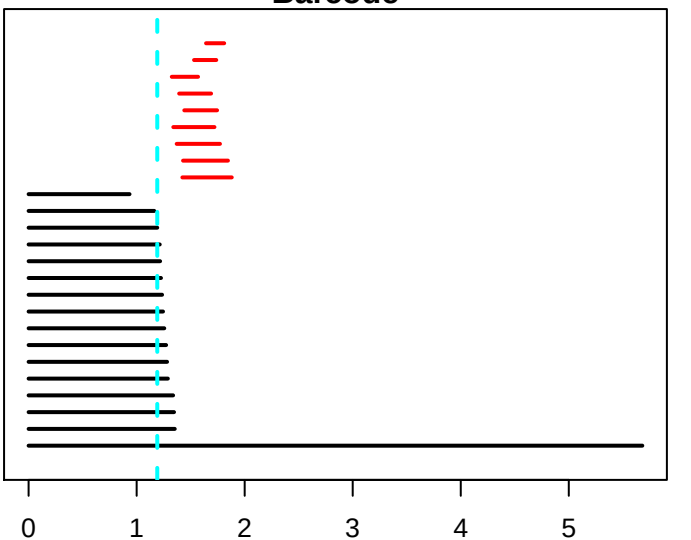
This is the 'Frame' at Euclidean distance = 1.19



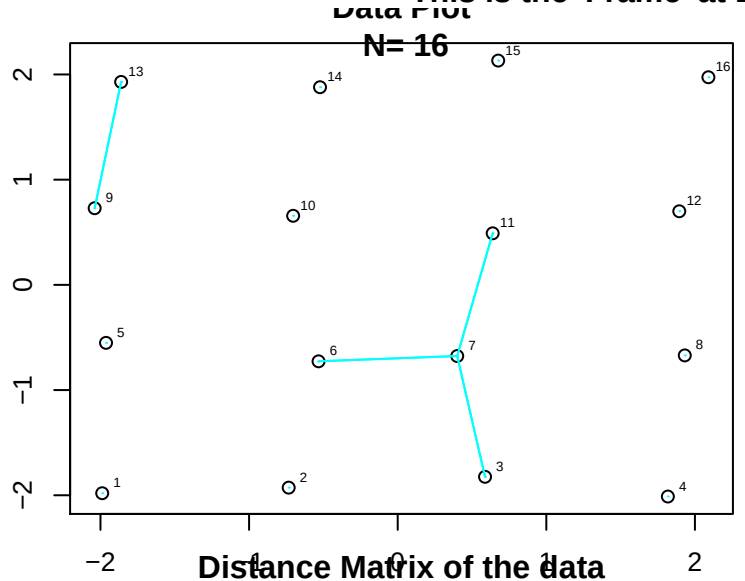


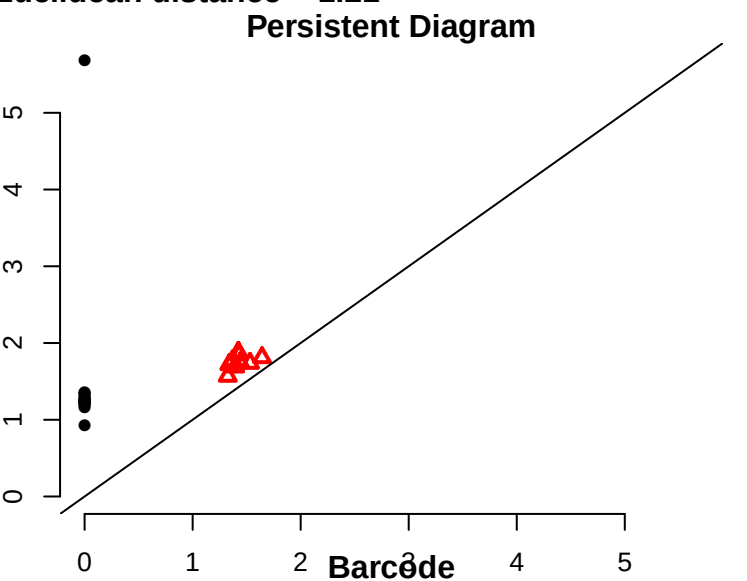
Distance Matrix of the data

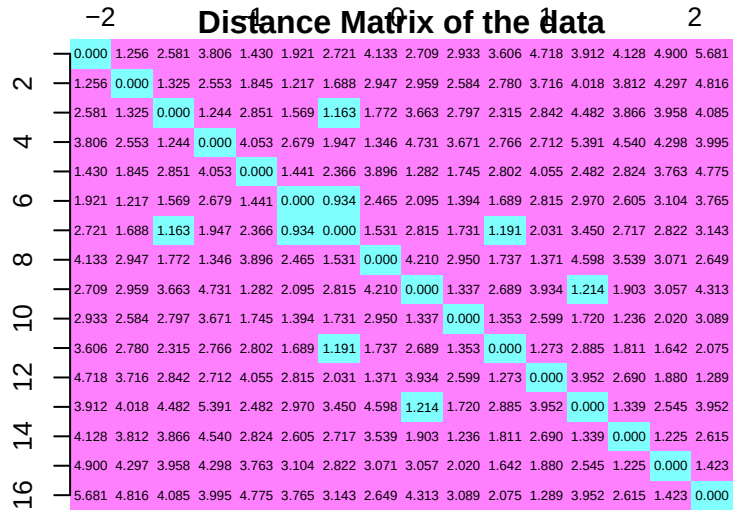
0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000

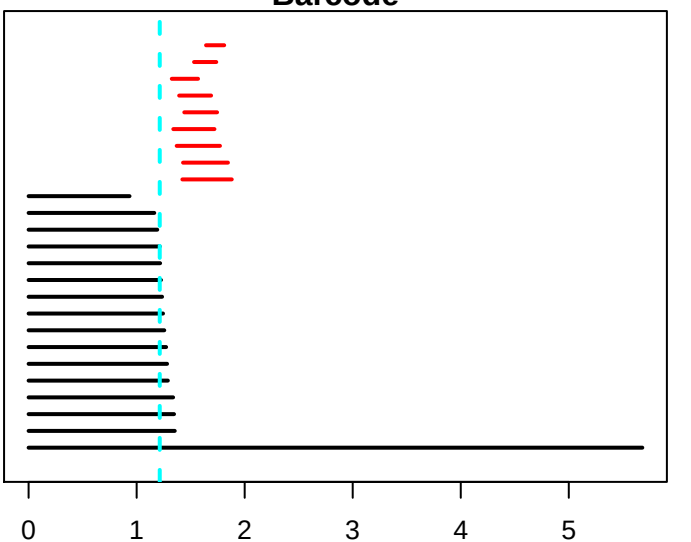


This is the 'Frame' at Euclidean distance = 1.21

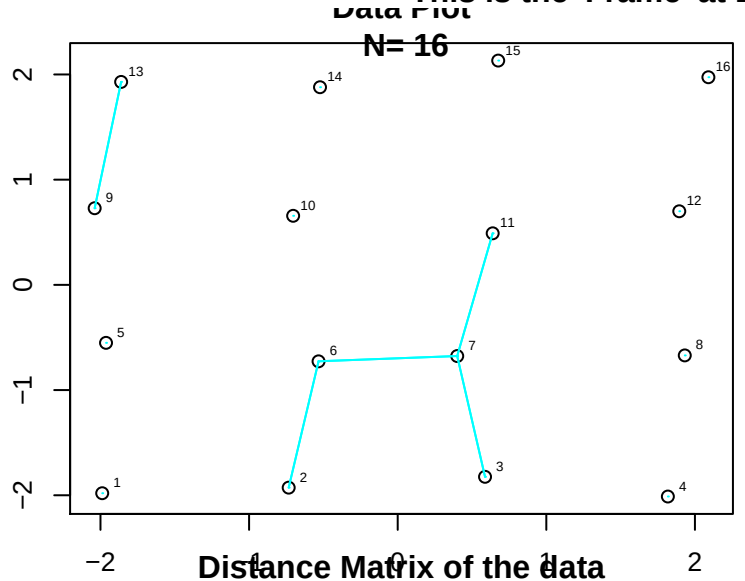


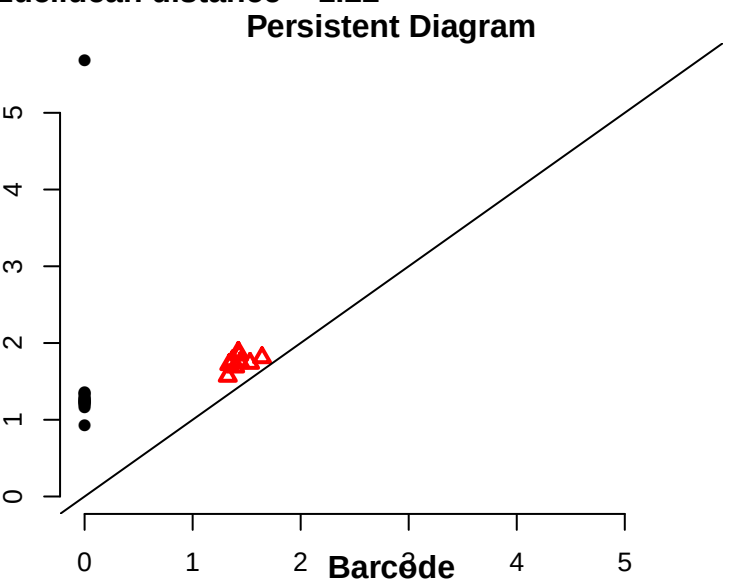


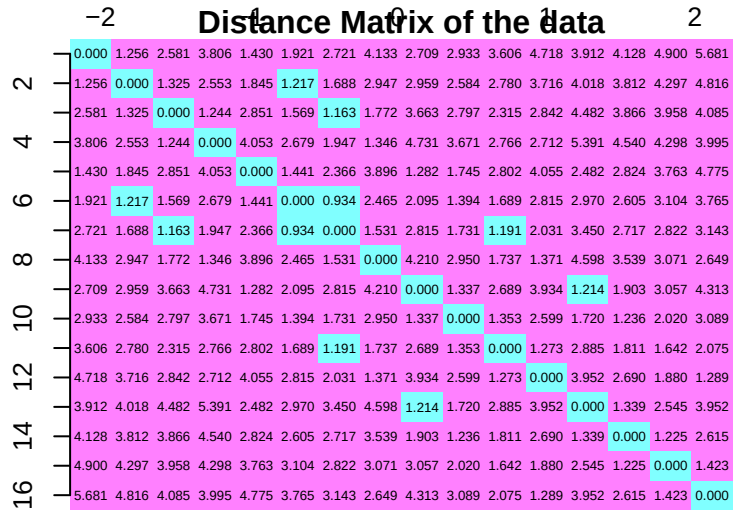


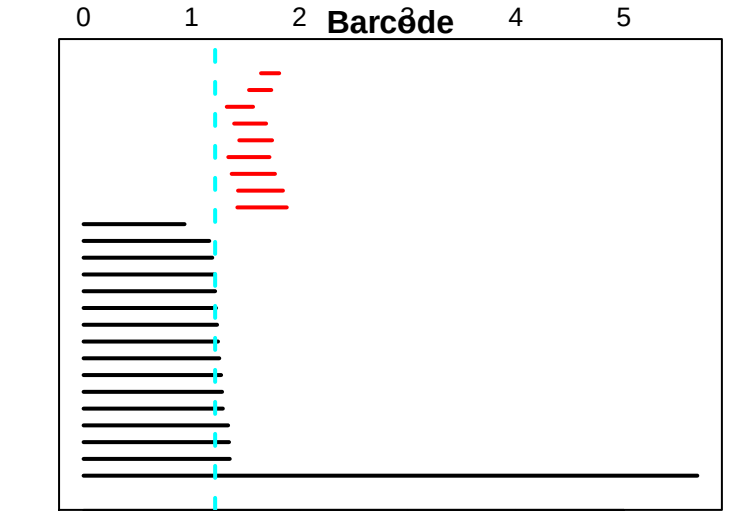


This is the 'Frame' at Euclidean distance = 1.22

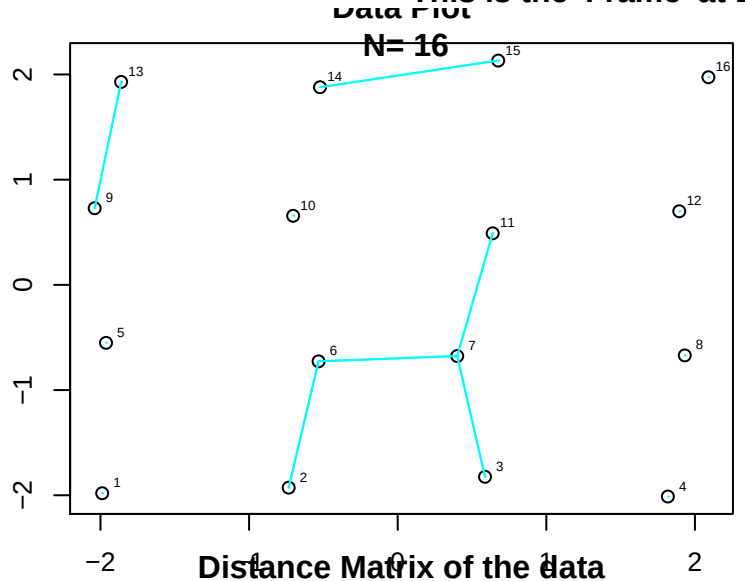


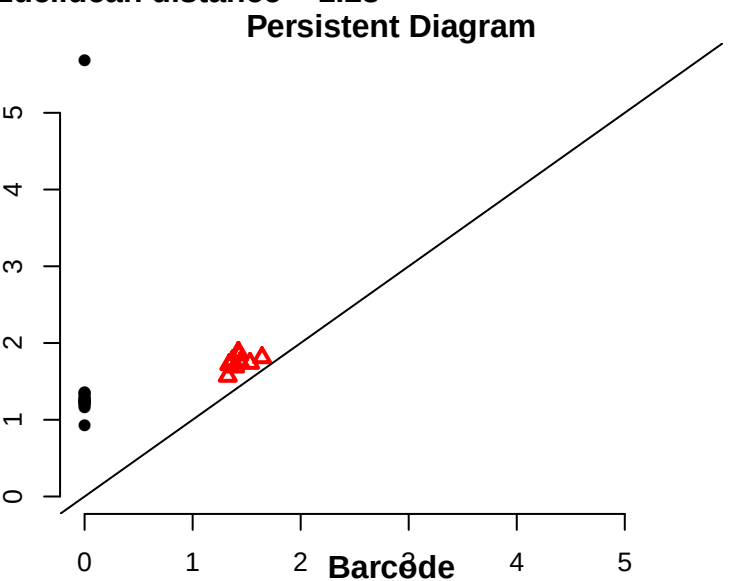


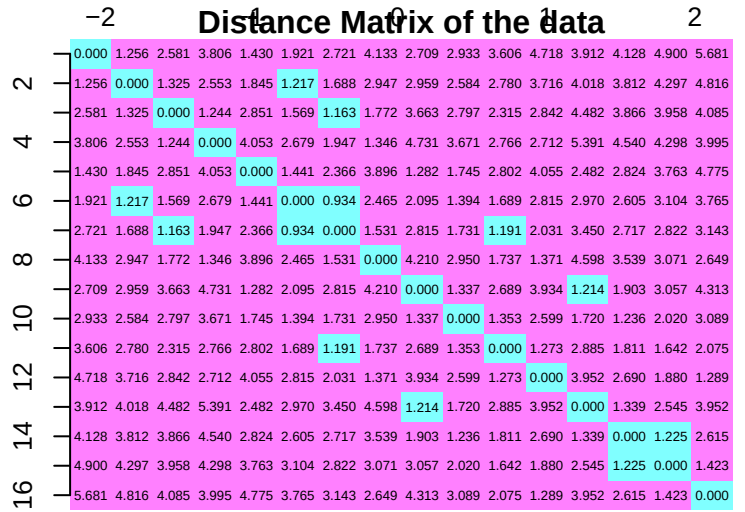


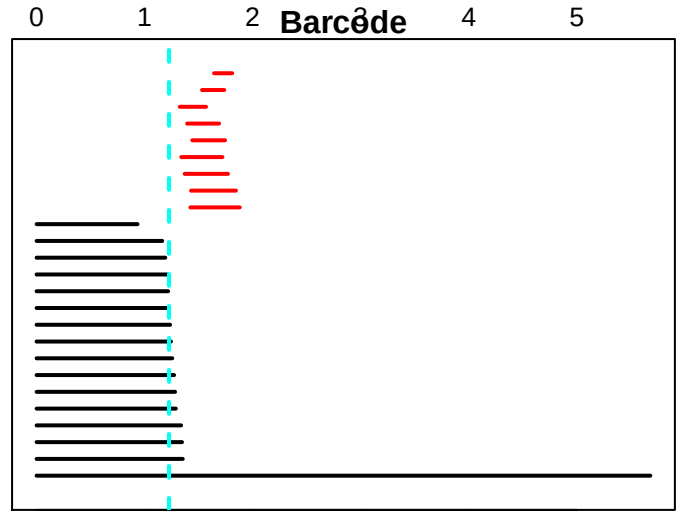


This is the 'Frame' at Euclidean distance = 1.23

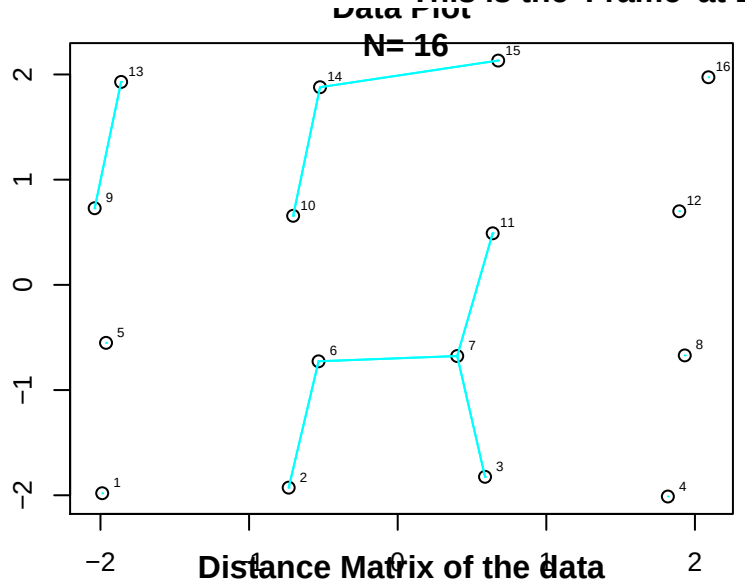


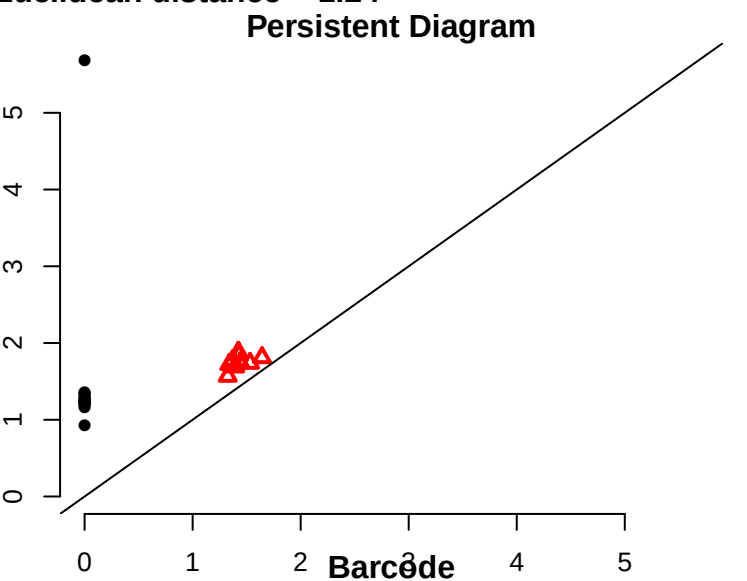


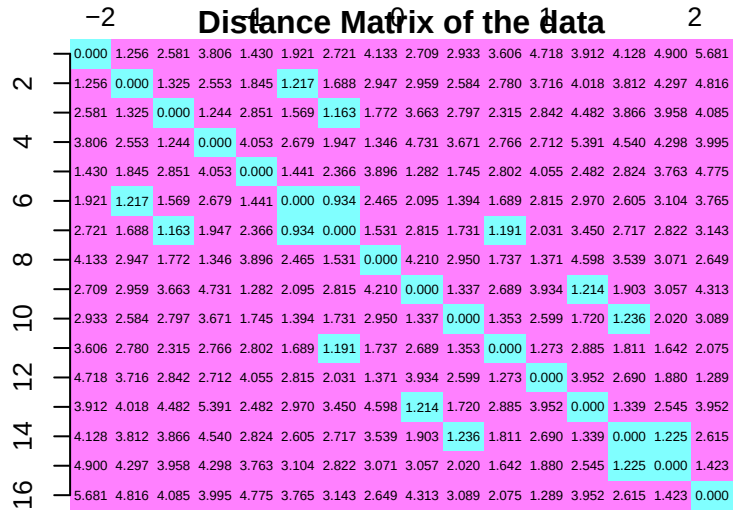


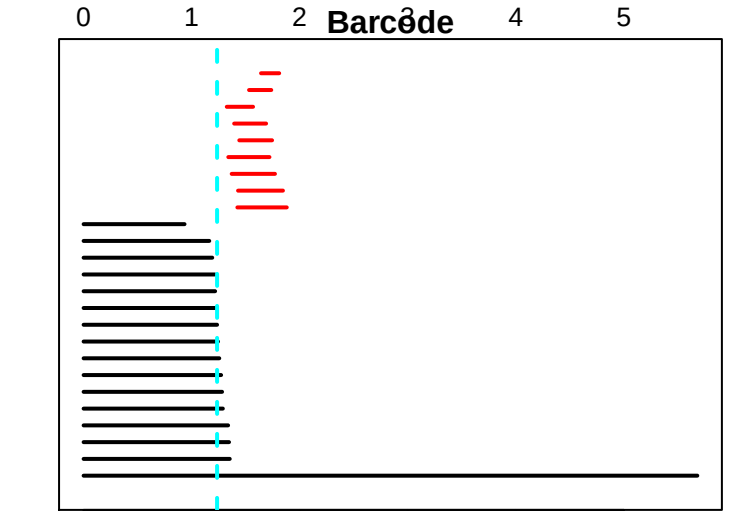


This is the 'Frame' at Euclidean distance = 1.24

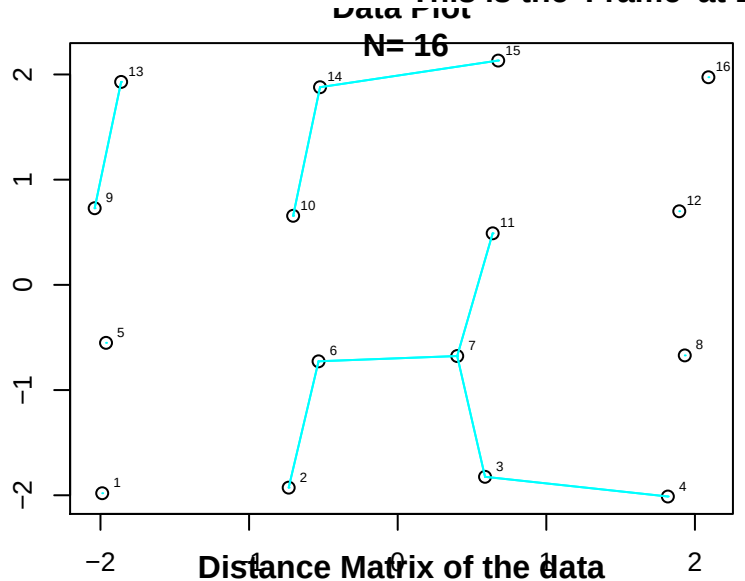


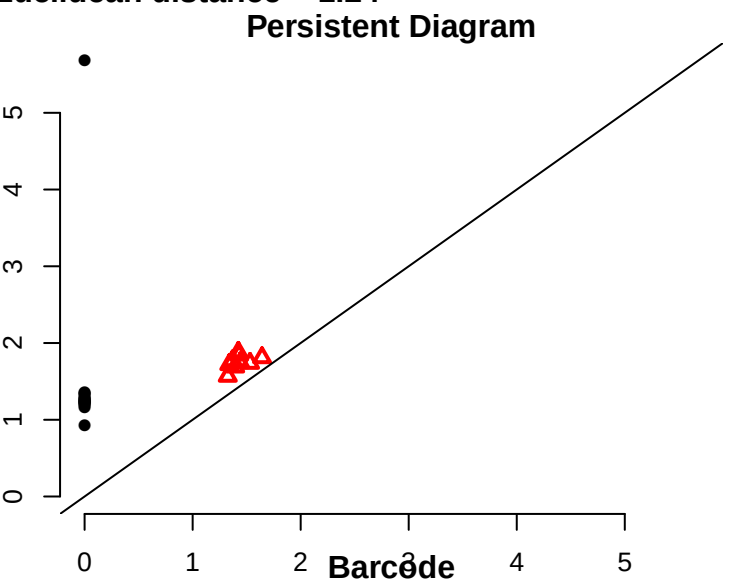


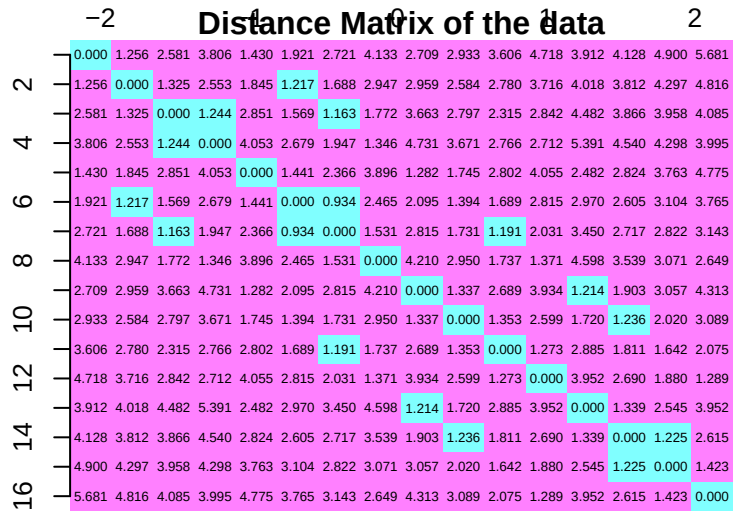


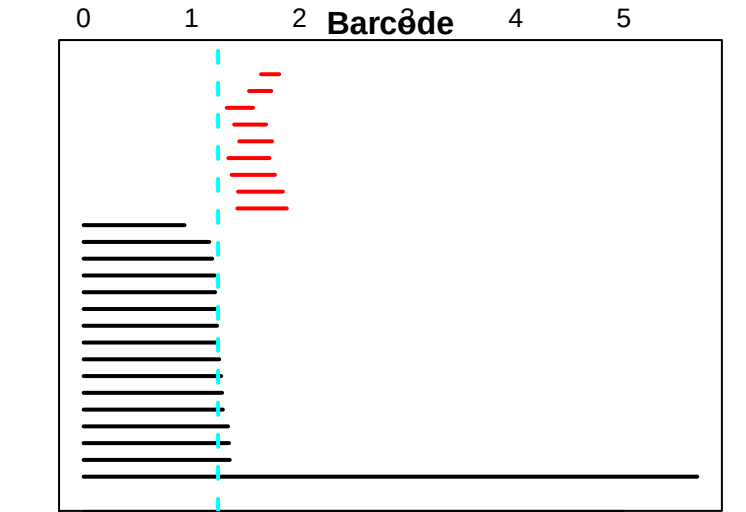


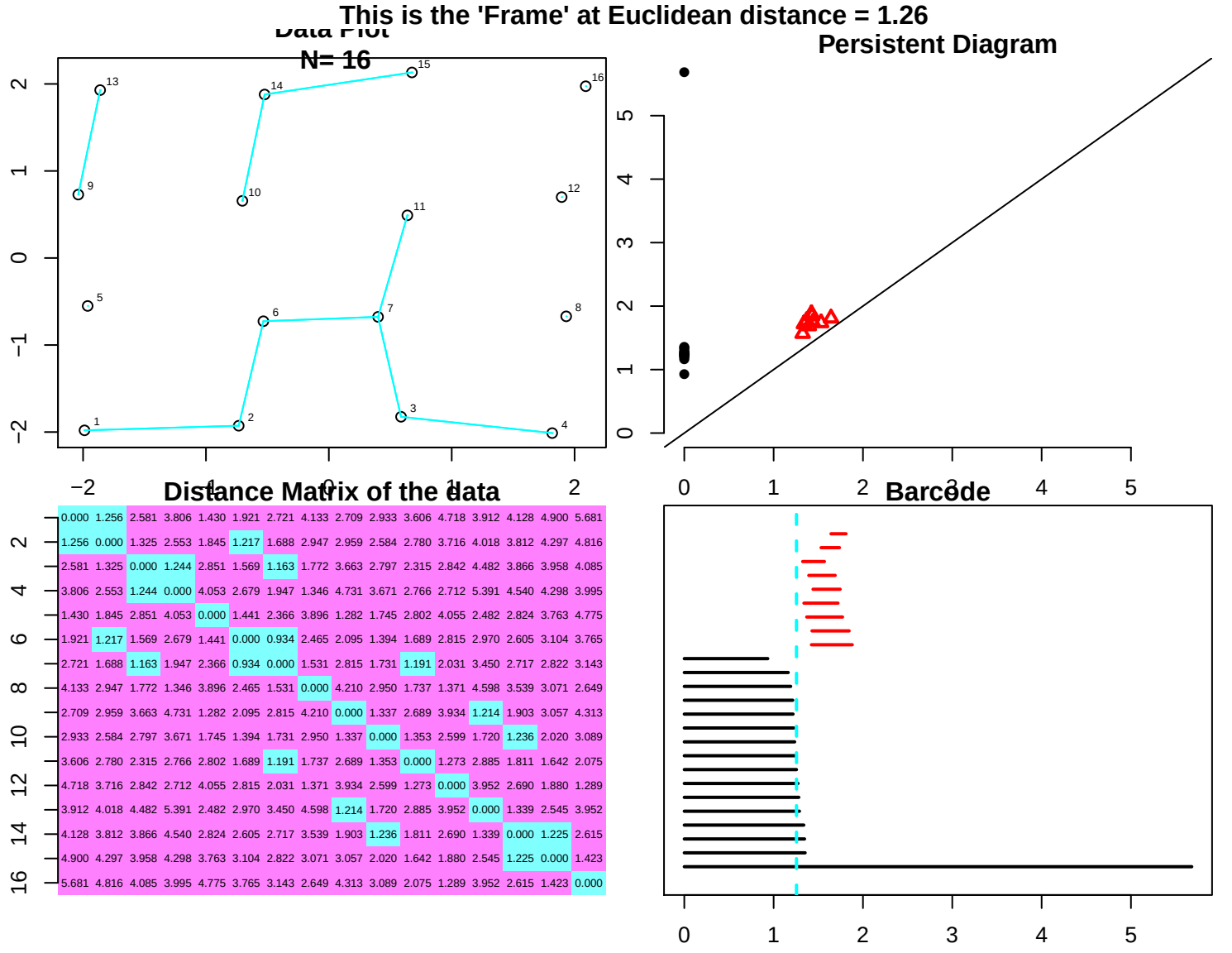
This is the 'Frame' at Euclidean distance = 1.24



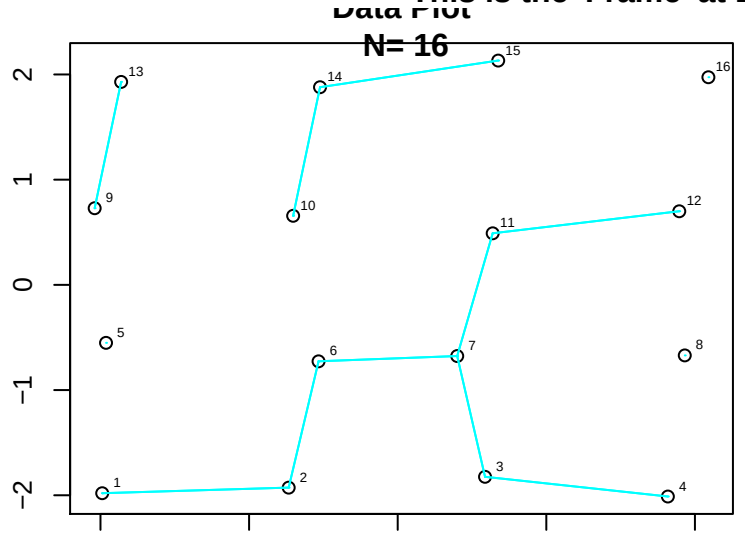


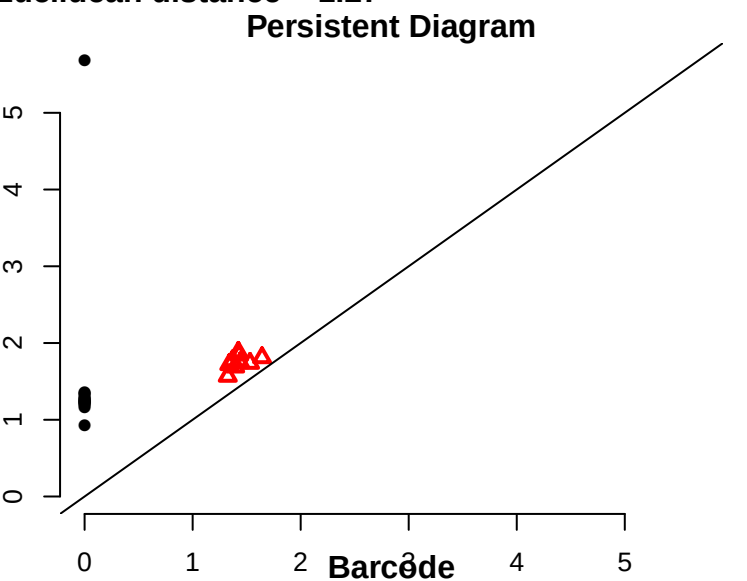





This is the 'Frame' at Euclidean distance = 1.26
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode

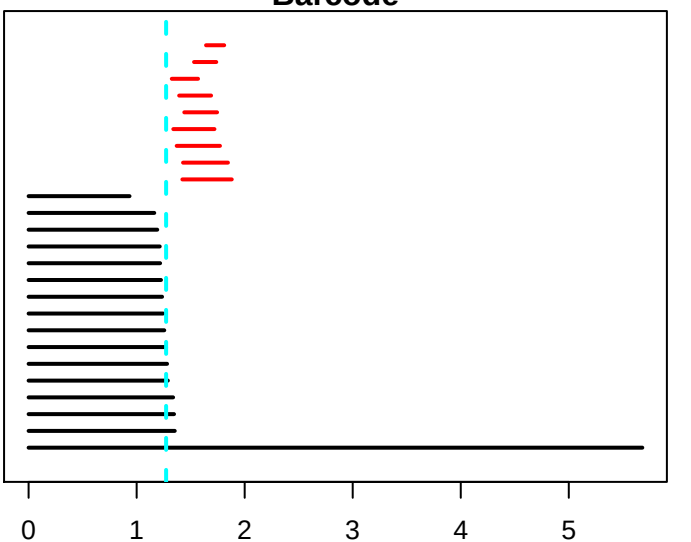
This is the 'Frame' at Euclidean distance = 1.27

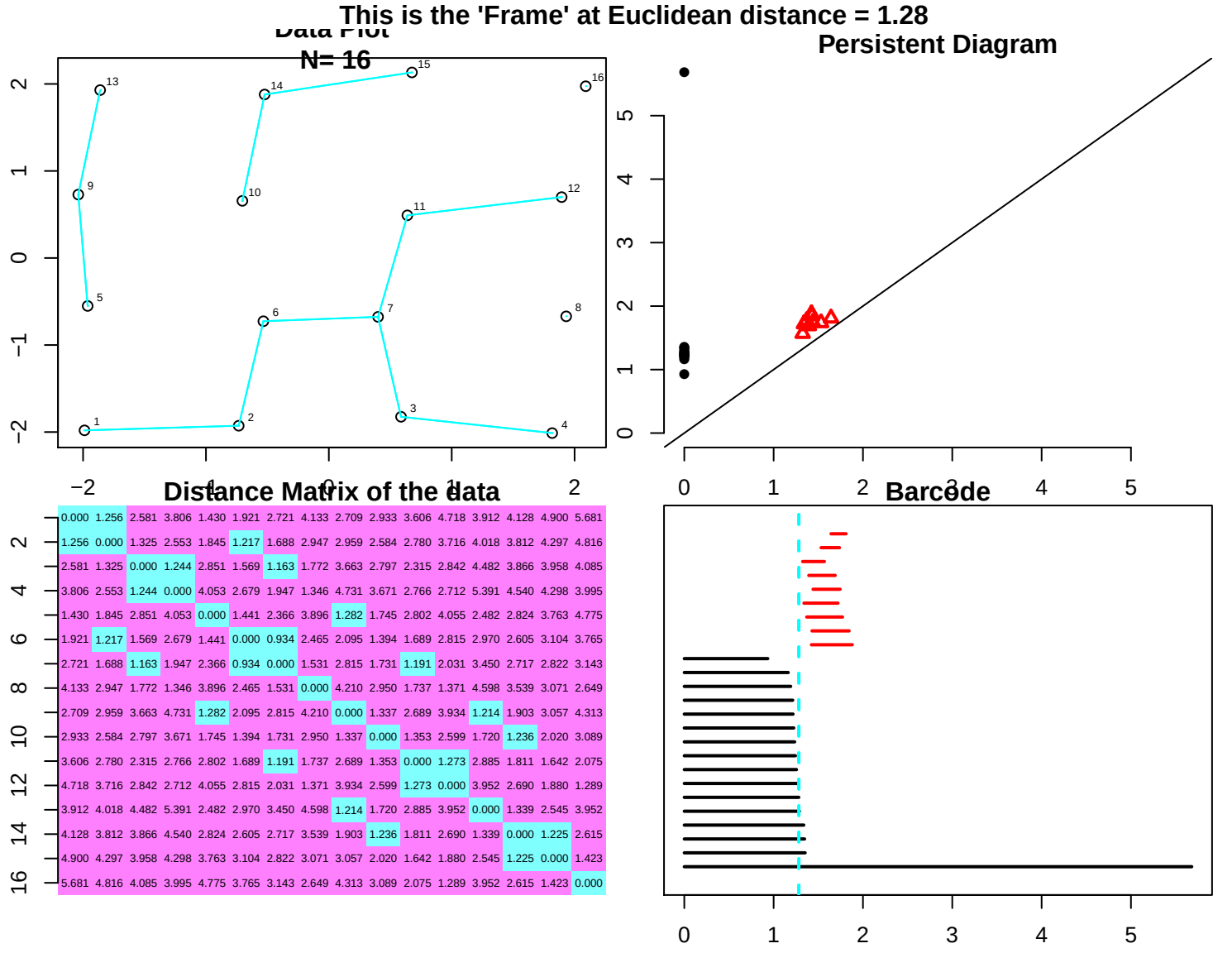




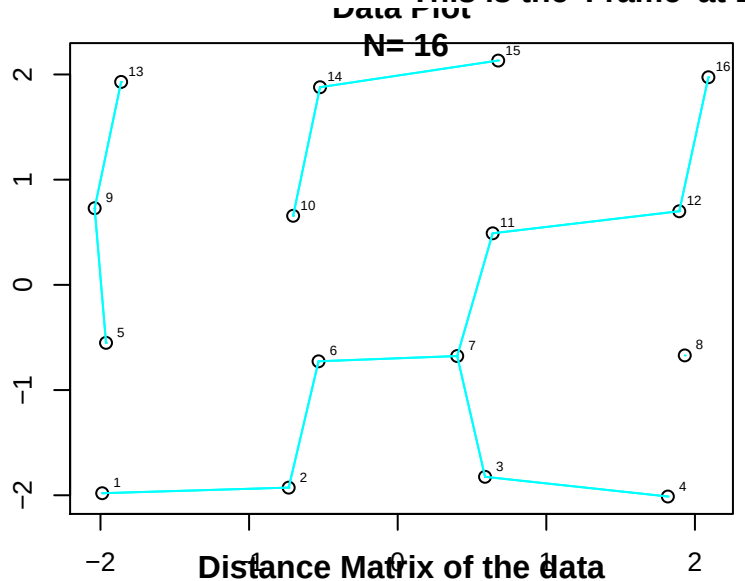
Distance Matrix of the data

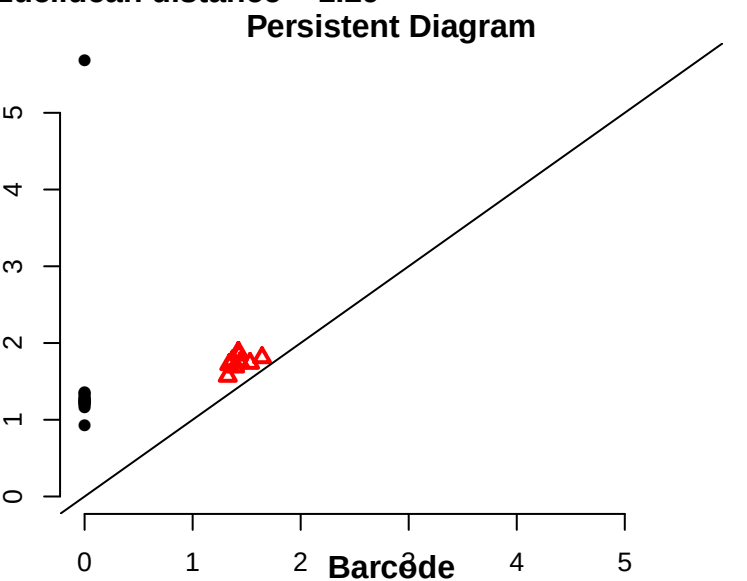
0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000




This is the 'Frame' at Euclidean distance = 1.28
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode
0.000 1.256 2.581 3.806 1.430 1.921 2.721 4.133 2.709 2.933 3.606 4.718 3.912 4.128 4.900 5.681
1.256 0.000 1.325 2.553 1.845 1.217 1.688 2.947 2.959 2.584 2.780 3.716 4.018 3.812 4.297 4.816
2.581 1.325 0.000 1.244 2.851 1.569 1.163 1.772 3.663 2.797 2.315 2.842 4.482 3.866 3.958 4.085
3.806 2.553 1.244 0.000 4.053 2.679 1.947 1.346 4.731 3.671 2.766 2.712 5.391 4.540 4.298 3.995
1.430 1.845 2.851 4.053 0.000 1.441 2.366 3.896 1.282 1.745 2.802 4.055 2.482 2.824 3.763 4.775
1.921 1.217 1.569 2.679 1.441 0.000 0.934 2.465 2.095 1.394 1.689 2.815 2.970 2.605 3.104 3.765
2.721 1.688 1.163 1.947 2.366 0.934 0.000 1.531 2.815 1.731 1.191 2.031 3.450 2.717 2.822 3.143
4.133 2.947 1.772 1.346 3.896 2.465 1.531 0.000 4.210 2.950 1.737 1.371 4.598 3.539 3.071 2.649
2.709 2.959 3.663 4.731 1.282 2.095 2.815 4.210 0.000 1.337 2.689 3.934 1.214 1.903 3.057 4.313
2.933 2.584 2.797 3.671 1.745 1.394 1.731 2.950 1.337 0.000 1.353 2.599 1.720 1.236 2.020 3.089
3.606 2.780 2.315 2.766 2.802 1.689 1.191 1.737 2.689 1.353 0.000 1.273 2.885 1.811 1.642 2.075
4.718 3.716 2.842 2.712 4.055 2.815 2.031 1.371 3.934 2.599 1.273 0.000 3.952 2.690 1.880 1.289
3.912 4.018 4.482 5.391 2.482 2.970 3.450 4.598 1.214 1.720 2.885 3.952 0.000 1.339 2.545 3.952
4.128 3.812 3.866 4.540 2.824 2.605 2.717 3.539 1.903 1.236 1.811 2.690 1.339 0.000 1.225 2.615
4.900 4.297 3.958 4.298 3.763 3.104 2.822 3.071 3.057 2.020 1.642 1.880 2.545 1.225 0.000 1.423
5.681 4.816 4.085 3.995 4.775 3.765 3.143 2.649 4.313 3.089 2.075 1.289 3.952 2.615 1.423 0.000

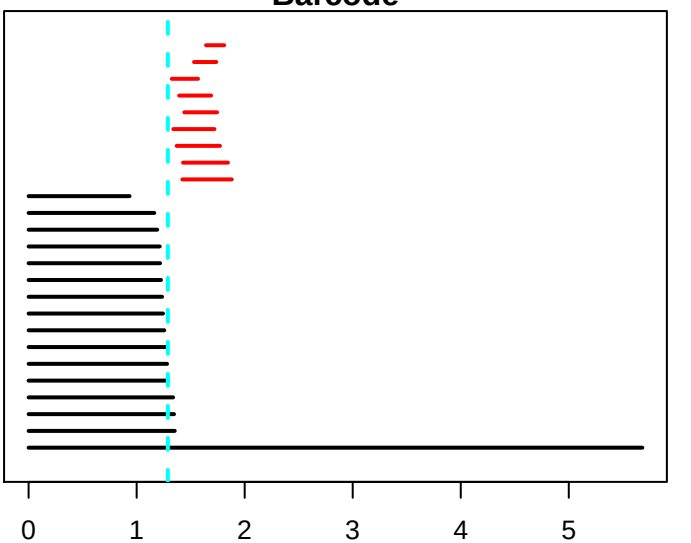
This is the 'Frame' at Euclidean distance = 1.29

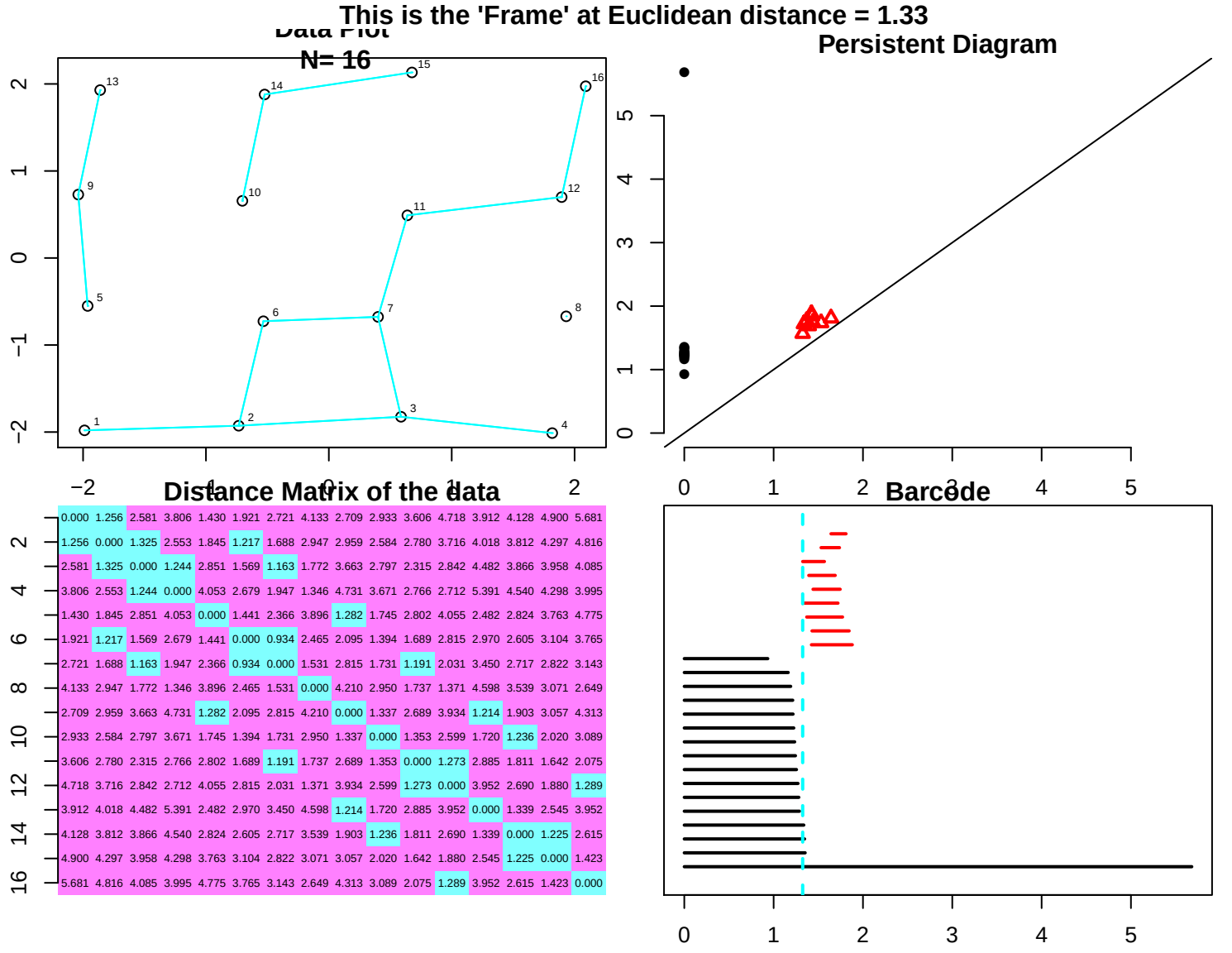




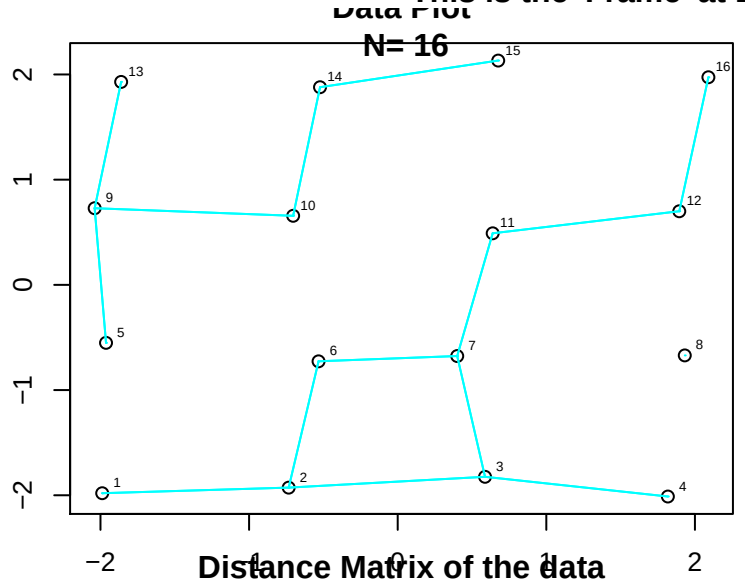
Distance Matrix of the data

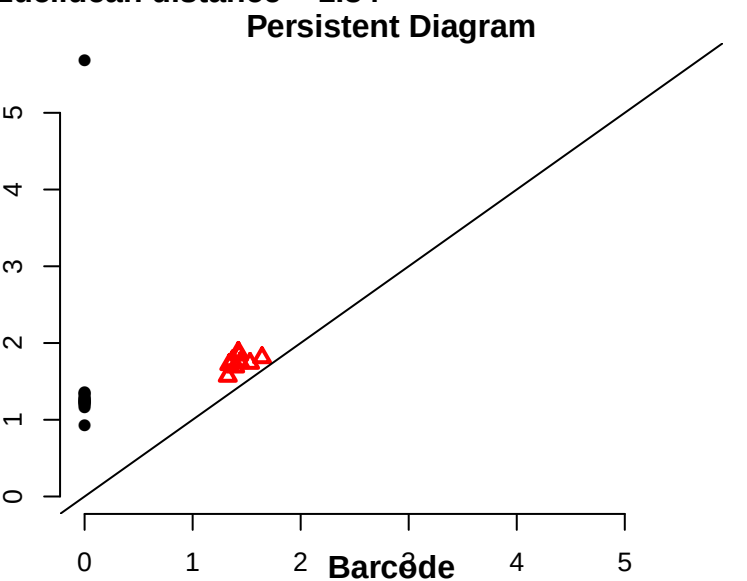
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
2	1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
3	2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
4	3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
5	1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
6	1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
7	2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
8	4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
9	2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
10	2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
11	3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
12	4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
13	3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
14	4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
15	4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
16	5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000




This is the 'Frame' at Euclidean distance = 1.33
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode
0.000 1.256 2.581 3.806 1.430 1.921 2.721 4.133 2.709 2.933 3.606 4.718 3.912 4.128 4.900 5.681
1.256 0.000 1.325 2.553 1.845 1.217 1.688 2.947 2.959 2.584 2.780 3.716 4.018 3.812 4.297 4.816
2.581 1.325 0.000 1.244 2.851 1.569 1.163 1.772 3.663 2.797 2.315 2.842 4.482 3.866 3.958 4.085
3.806 2.553 1.244 0.000 4.053 2.679 1.947 1.346 4.731 3.671 2.766 2.712 5.391 4.540 4.298 3.995
1.430 1.845 2.851 4.053 0.000 1.441 2.366 3.896 1.282 1.745 2.802 4.055 2.482 2.824 3.763 4.775
1.921 1.217 1.569 2.679 1.441 0.000 0.934 2.465 2.095 1.394 1.689 2.815 2.970 2.605 3.104 3.765
2.721 1.688 1.163 1.947 2.366 0.934 0.000 1.531 2.815 1.731 1.191 2.031 3.450 2.717 2.822 3.143
4.133 2.947 1.772 1.346 3.896 2.465 1.531 0.000 4.210 2.950 1.737 1.371 4.598 3.539 3.071 2.649
2.709 2.959 3.663 4.731 1.282 2.095 2.815 4.210 0.000 1.337 2.689 3.934 1.214 1.903 3.057 4.313
2.933 2.584 2.797 3.671 1.745 1.394 1.731 2.950 1.337 0.000 1.353 2.599 1.720 1.236 2.020 3.089
3.606 2.780 2.315 2.766 2.802 1.689 1.191 1.737 2.689 1.353 0.000 1.273 2.885 1.811 1.642 2.075
4.718 3.716 2.842 2.712 4.055 2.815 2.031 1.371 3.934 2.599 1.273 0.000 3.952 2.690 1.880 1.289
3.912 4.018 4.482 5.391 2.482 2.970 3.450 4.598 1.214 1.720 2.885 3.952 0.000 1.339 2.545 3.952
4.128 3.812 3.866 4.540 2.824 2.605 2.717 3.539 1.903 1.236 1.811 2.690 1.339 0.000 1.225 2.615
4.900 4.297 3.958 4.298 3.763 3.104 2.822 3.071 3.057 2.020 1.642 1.880 2.545 1.225 0.000 1.423
5.681 4.816 4.085 3.995 4.775 3.765 3.143 2.649 4.313 3.089 2.075 1.289 3.952 2.615 1.423 0.000

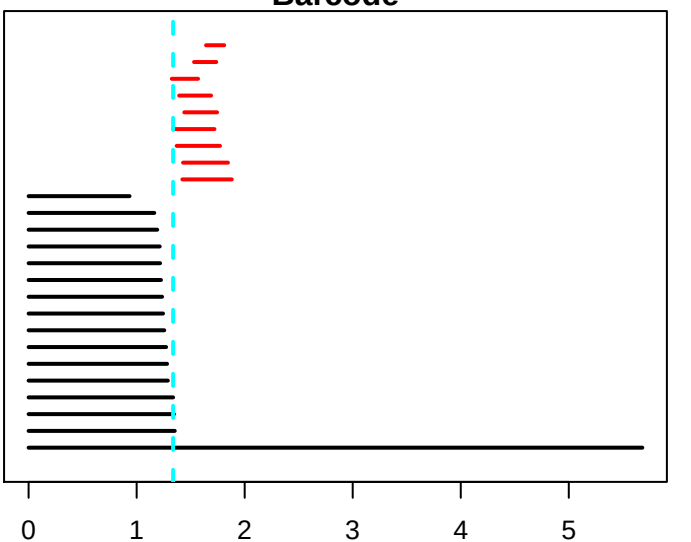
This is the 'Frame' at Euclidean distance = 1.34



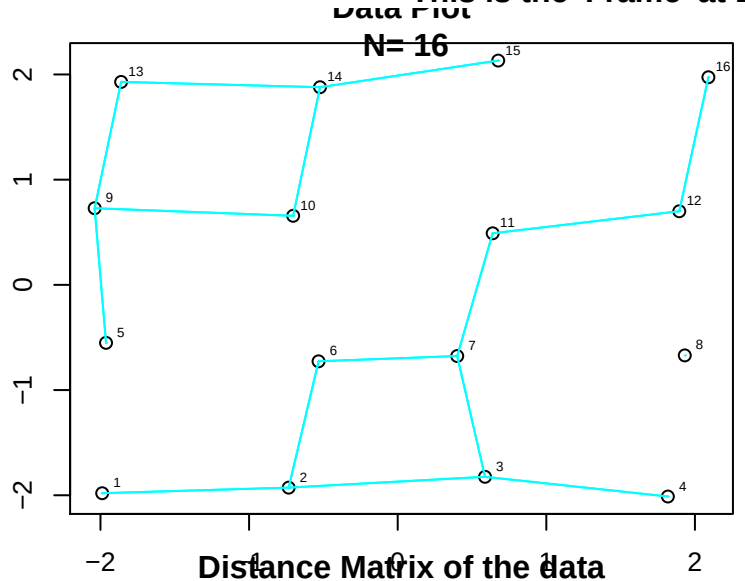


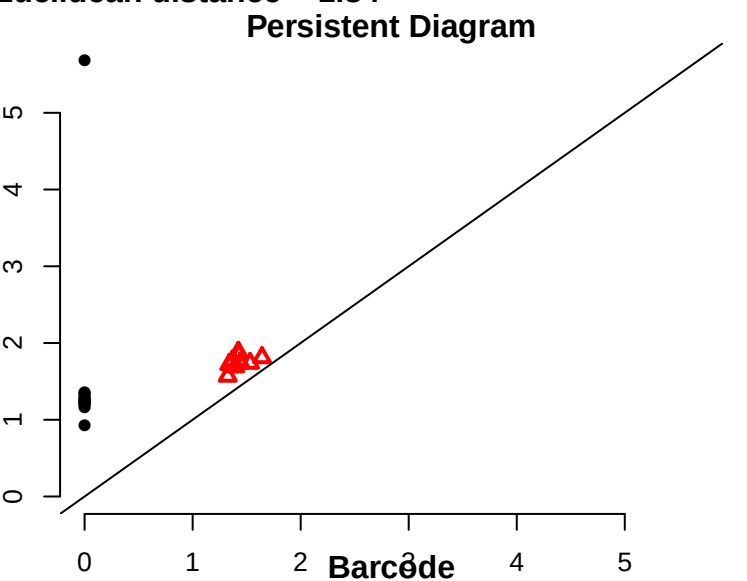
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



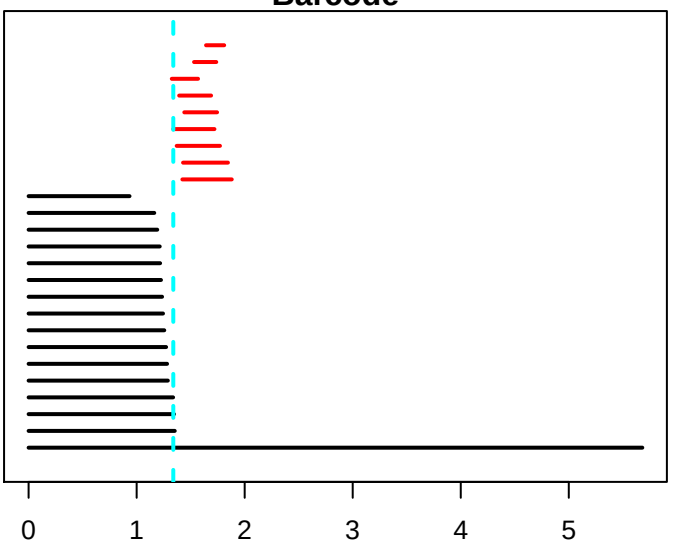
This is the 'Frame' at Euclidean distance = 1.34



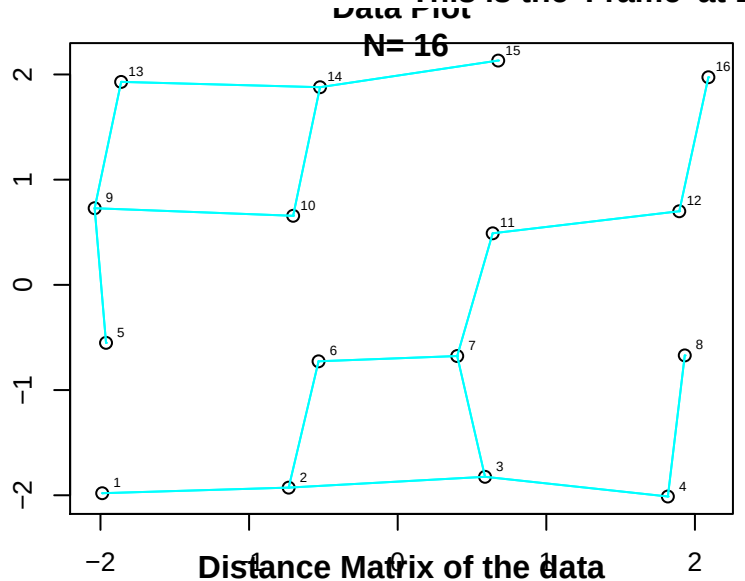


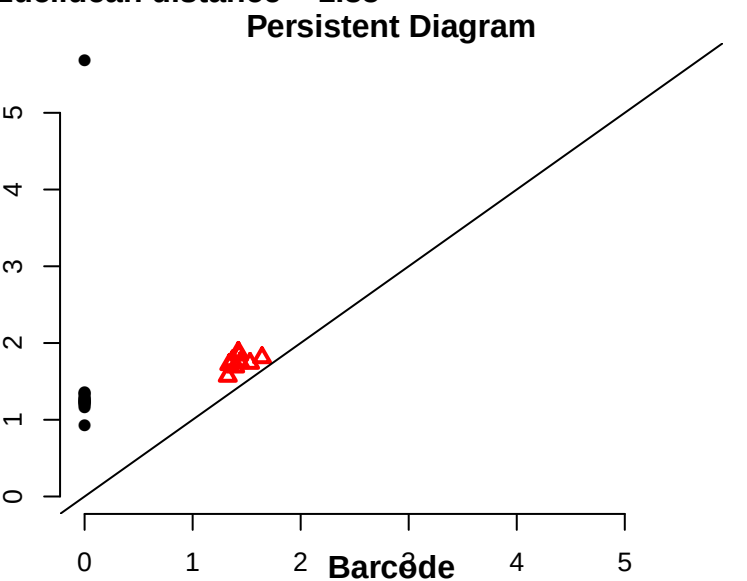
Distance Matrix of the data

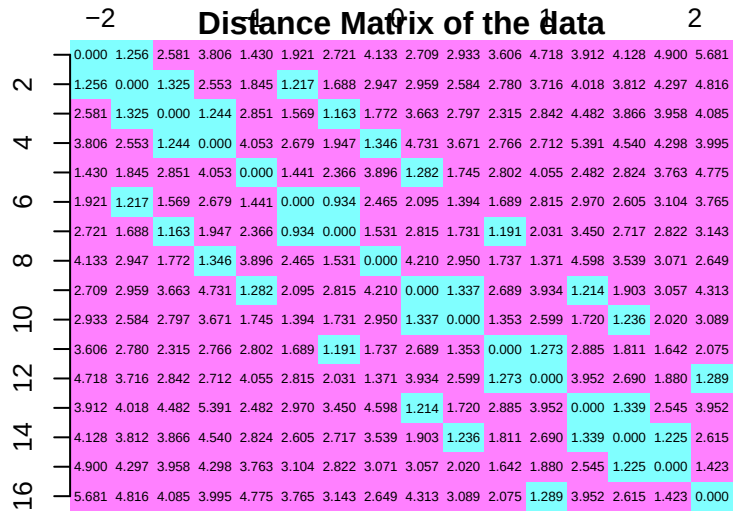
0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000

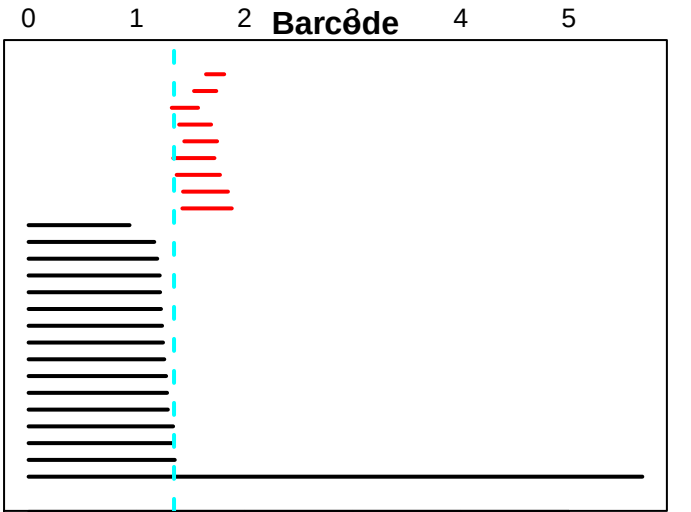


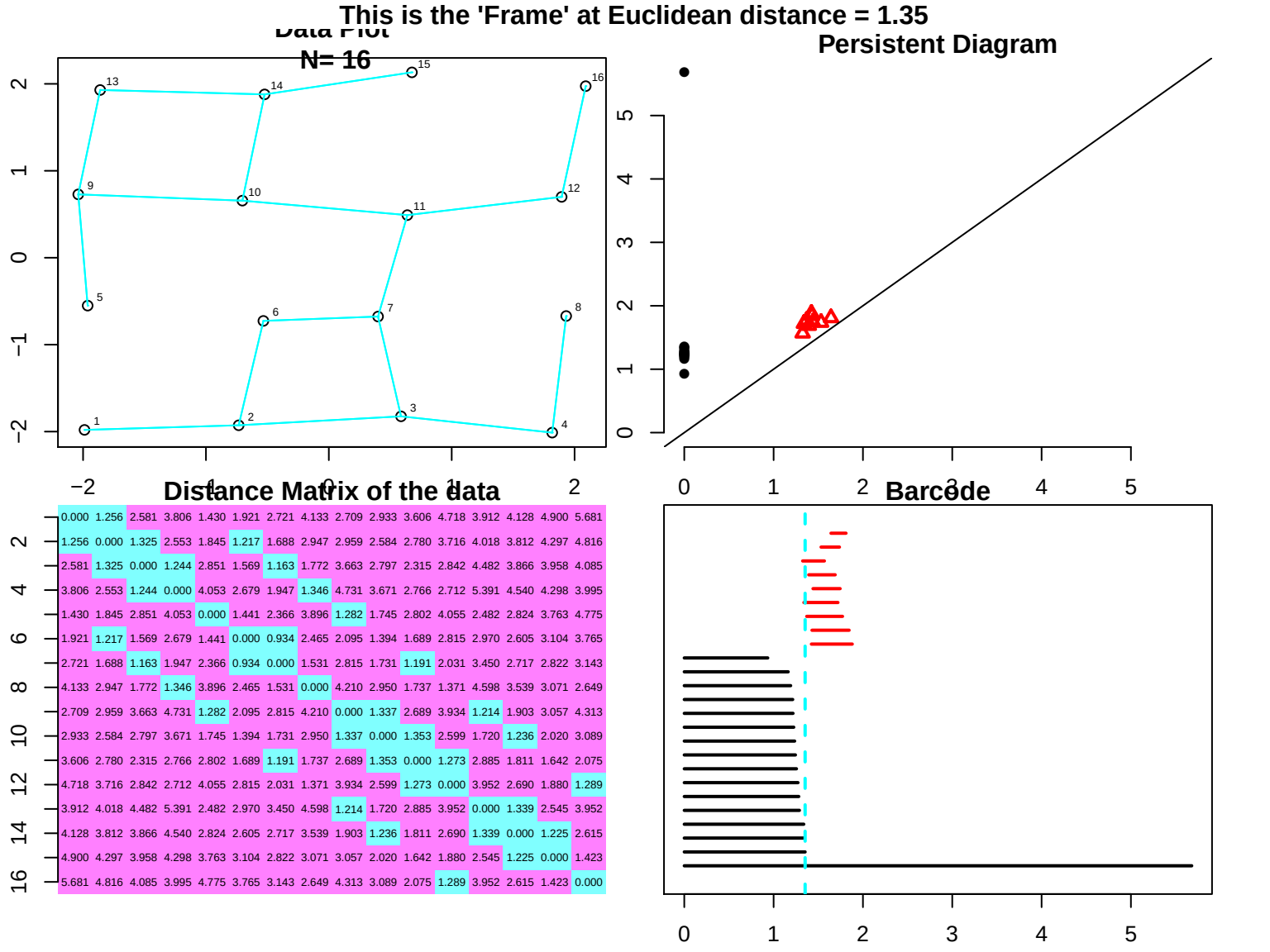
This is the 'Frame' at Euclidean distance = 1.35

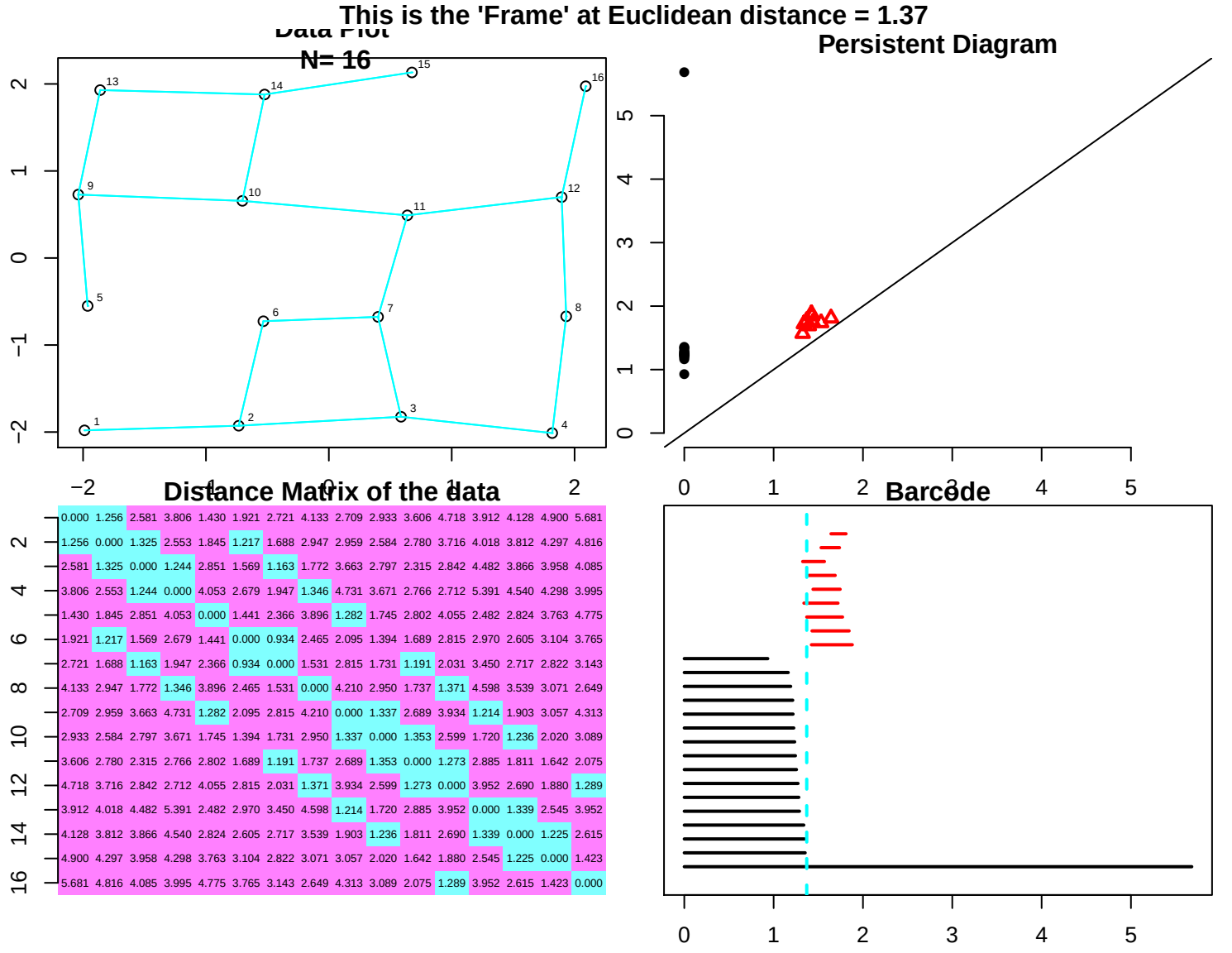




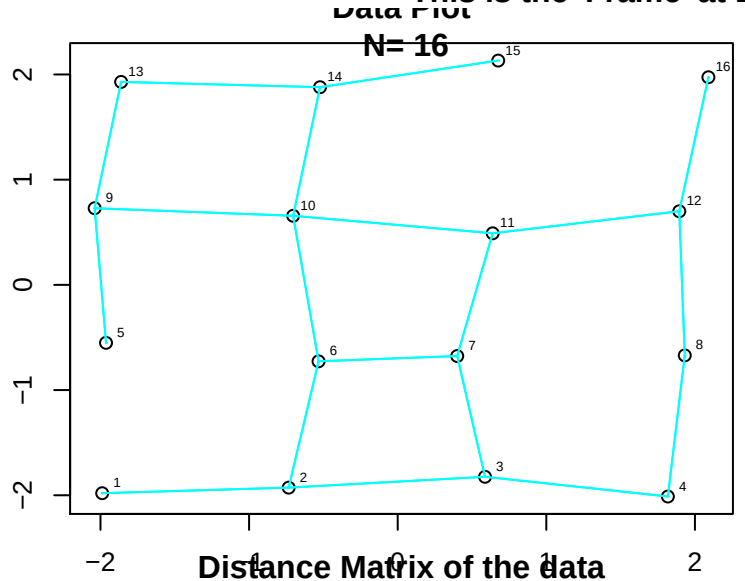


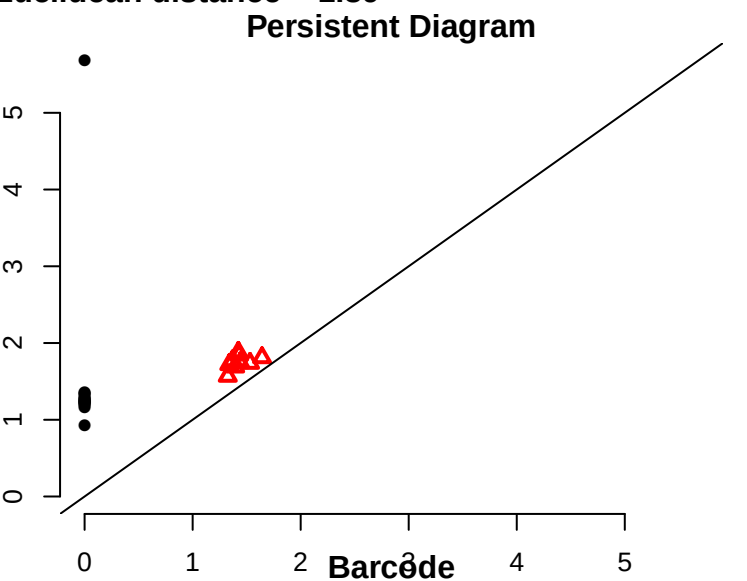



This is the 'Frame' at Euclidean distance = 1.35
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode


This is the 'Frame' at Euclidean distance = 1.37
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode

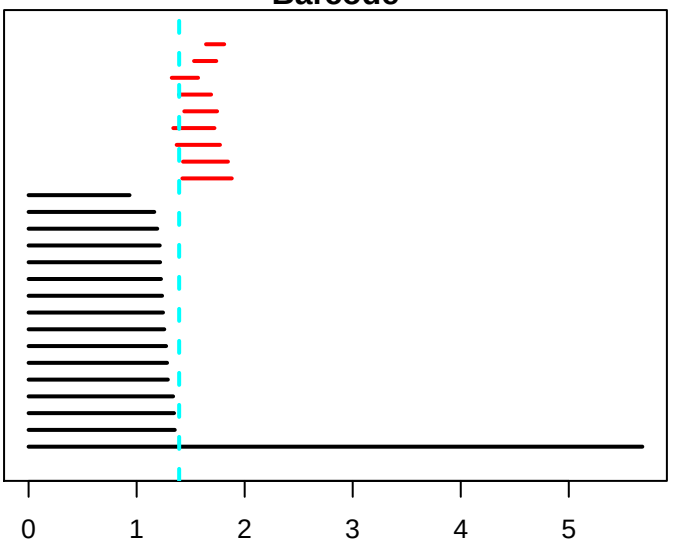
This is the 'Frame' at Euclidean distance = 1.39

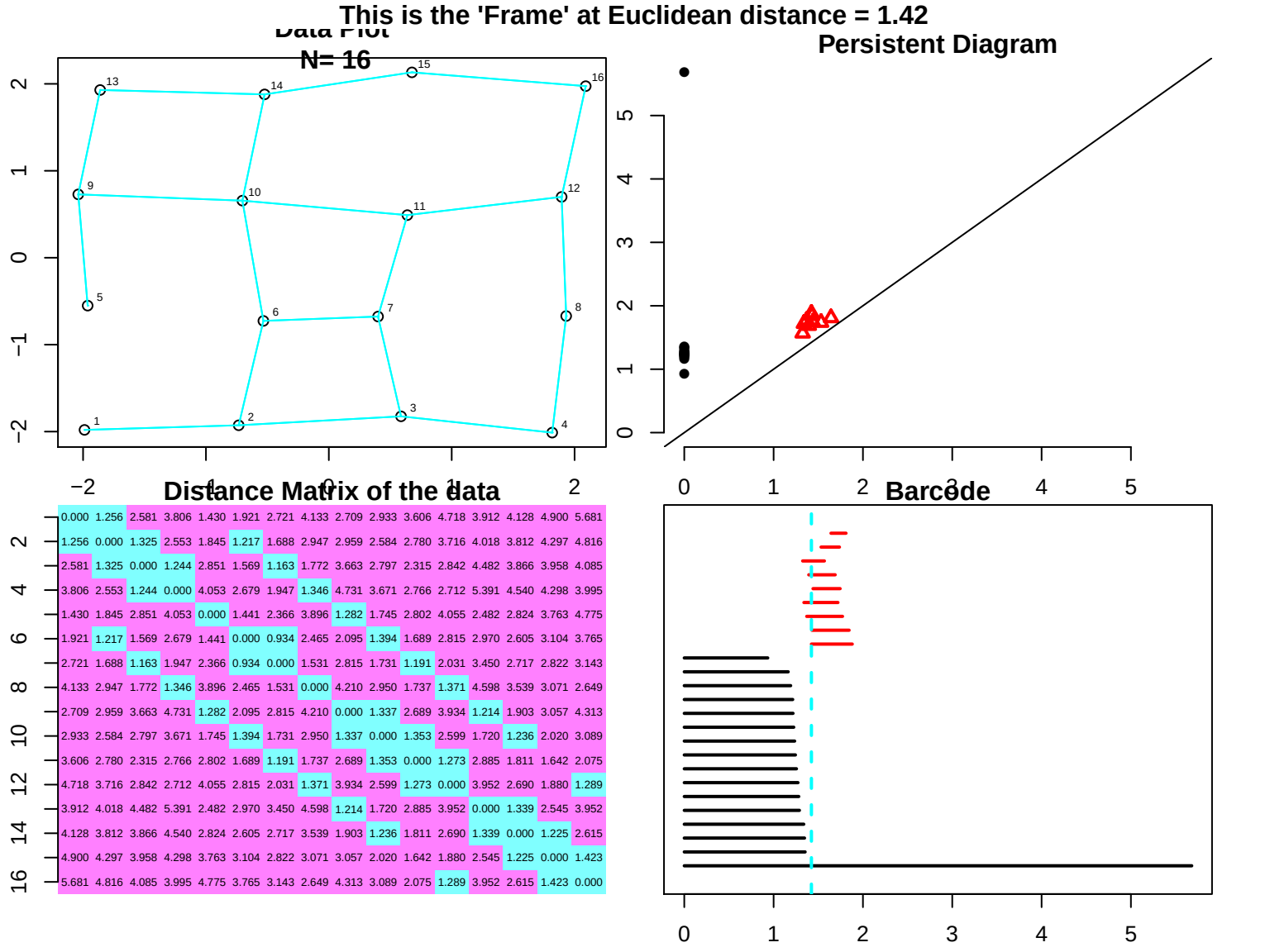


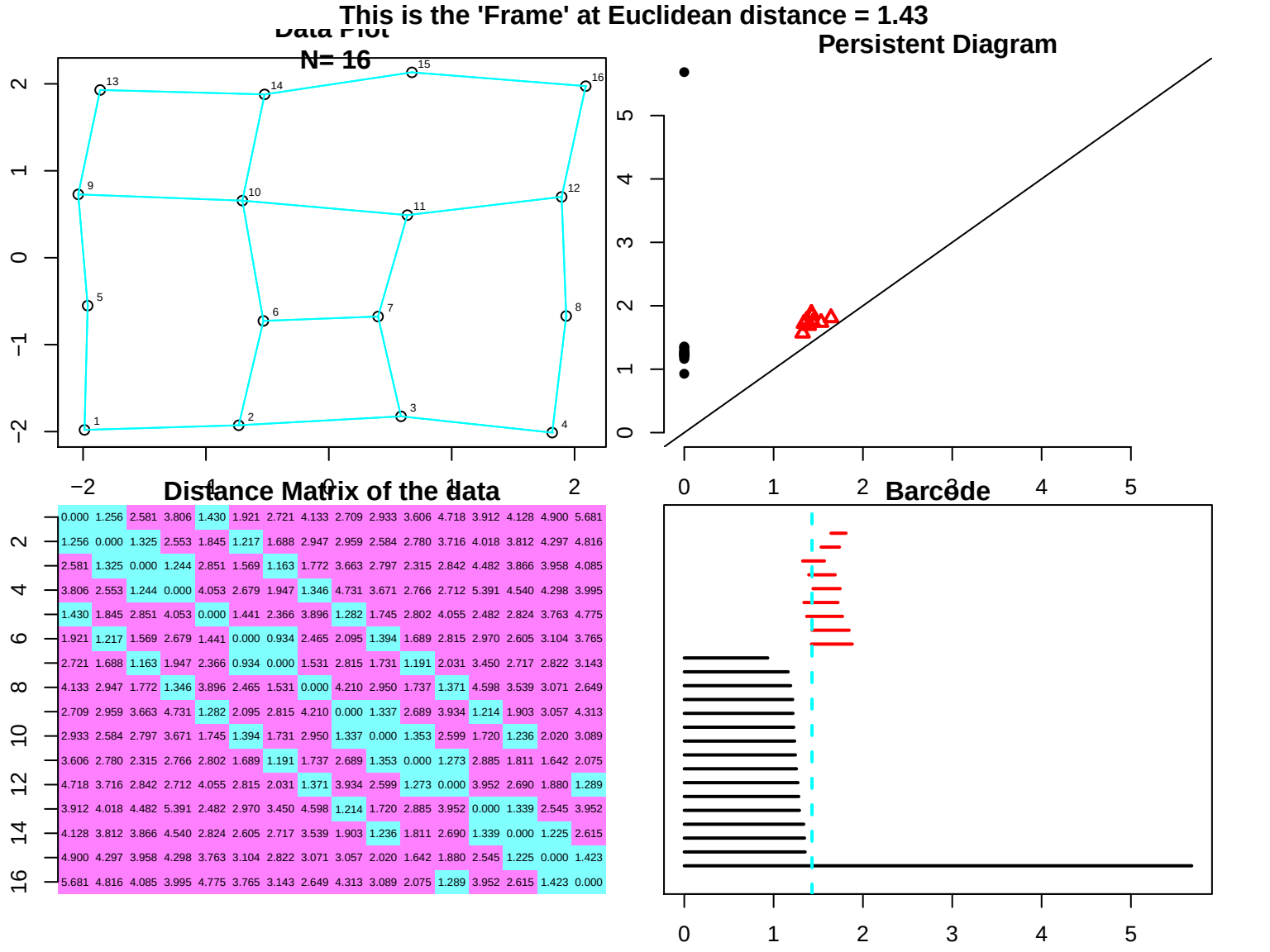


Distance Matrix of the data

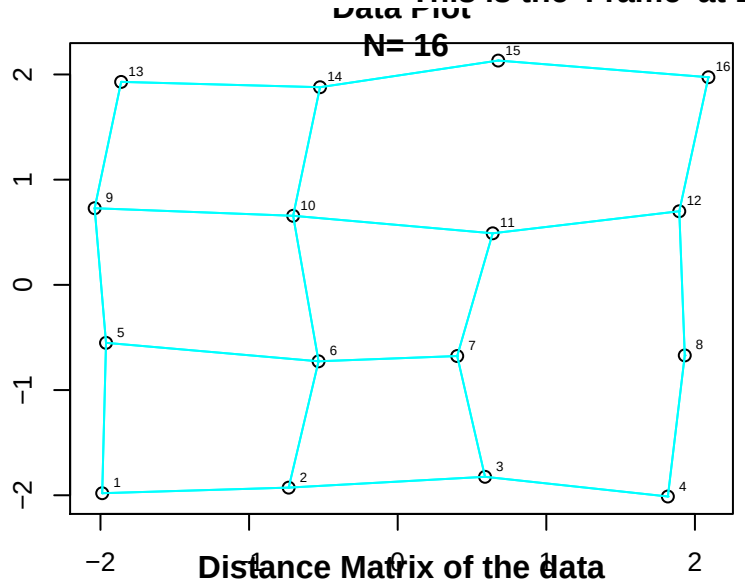
0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000

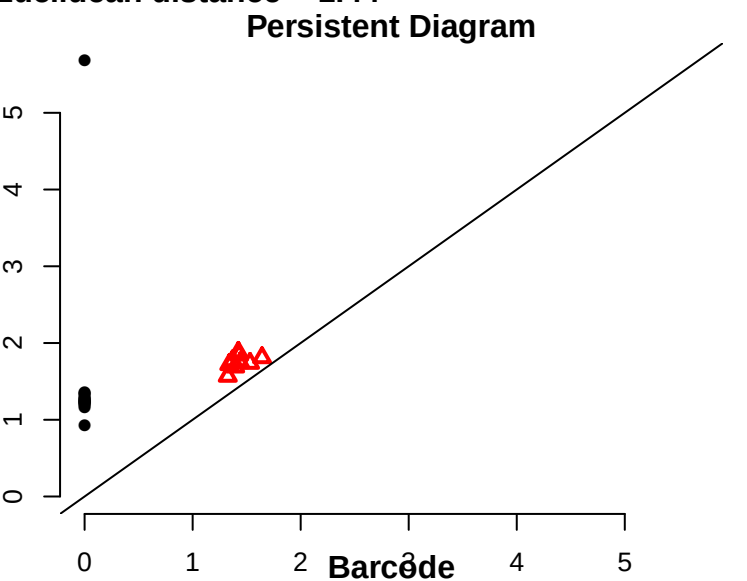



This is the 'Frame' at Euclidean distance = 1.42
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode


This is the 'Frame' at Euclidean distance = 1.43
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode

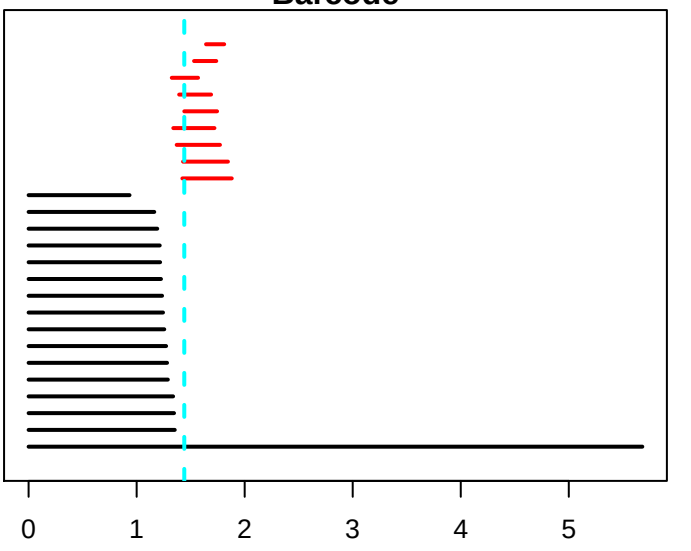
This is the 'Frame' at Euclidean distance = 1.44



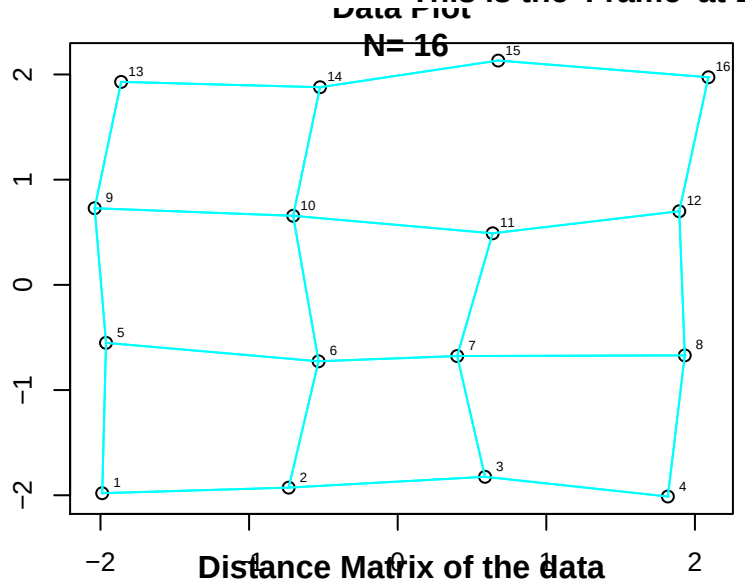


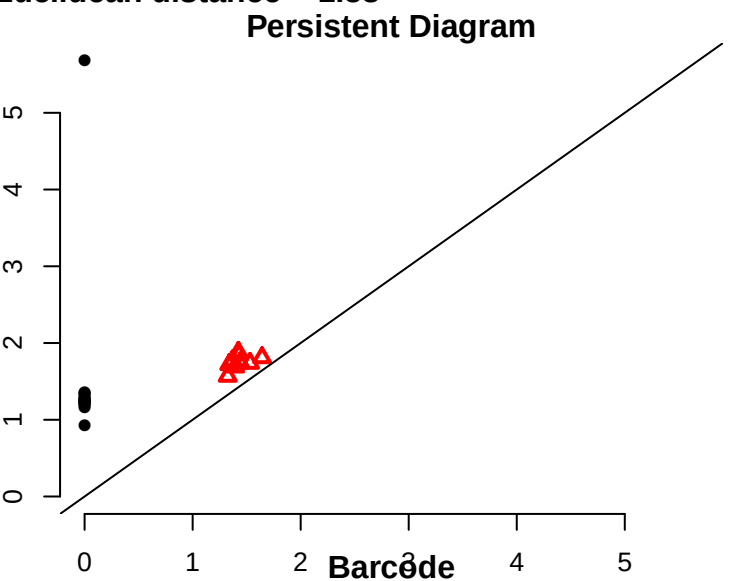
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



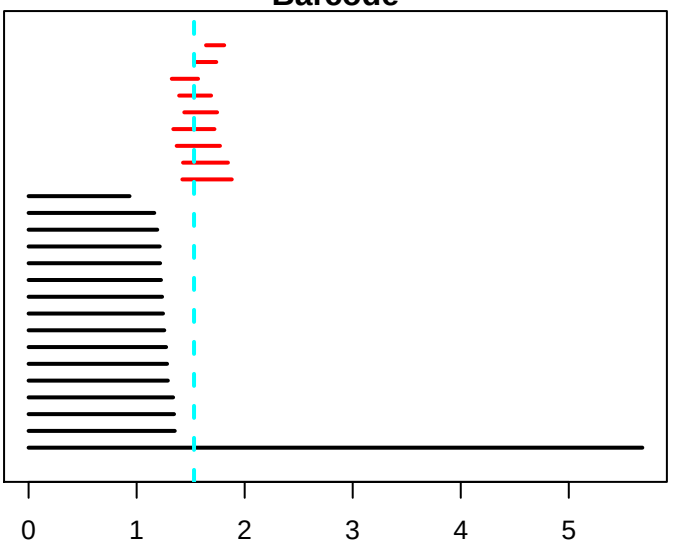
This is the 'Frame' at Euclidean distance = 1.53



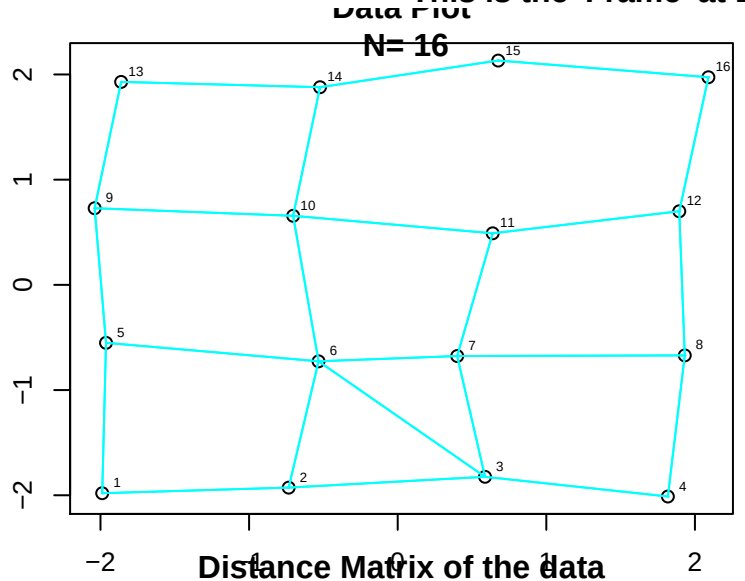


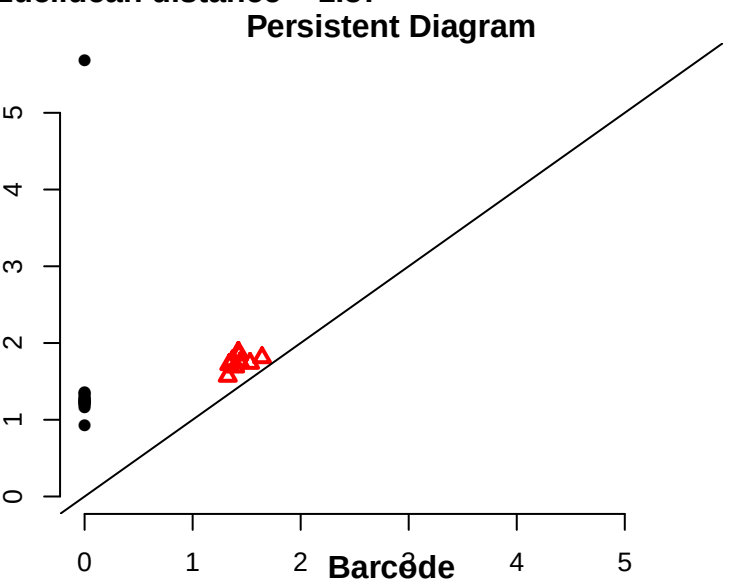
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



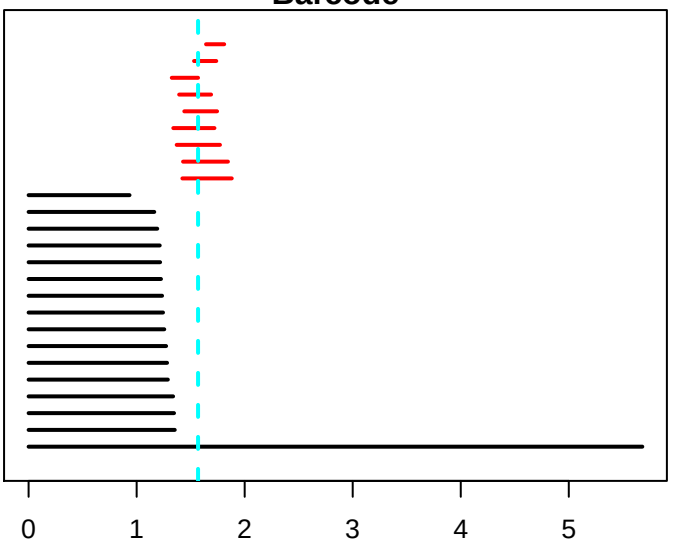
This is the 'Frame' at Euclidean distance = 1.57



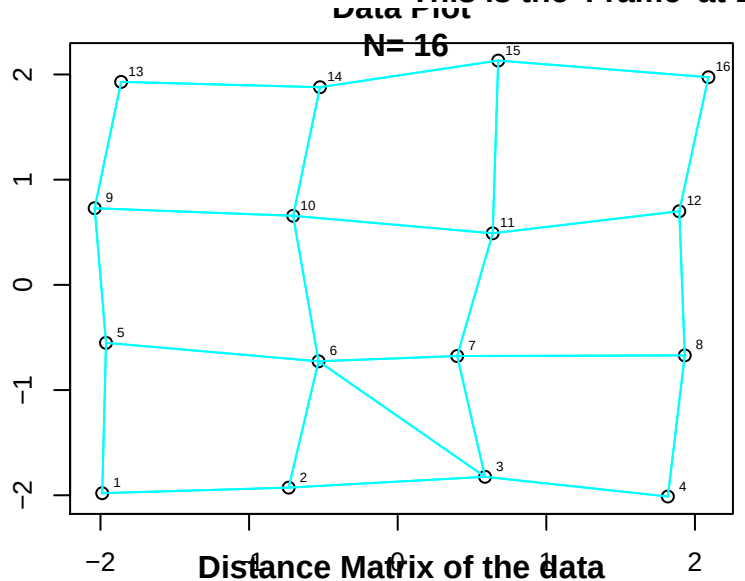


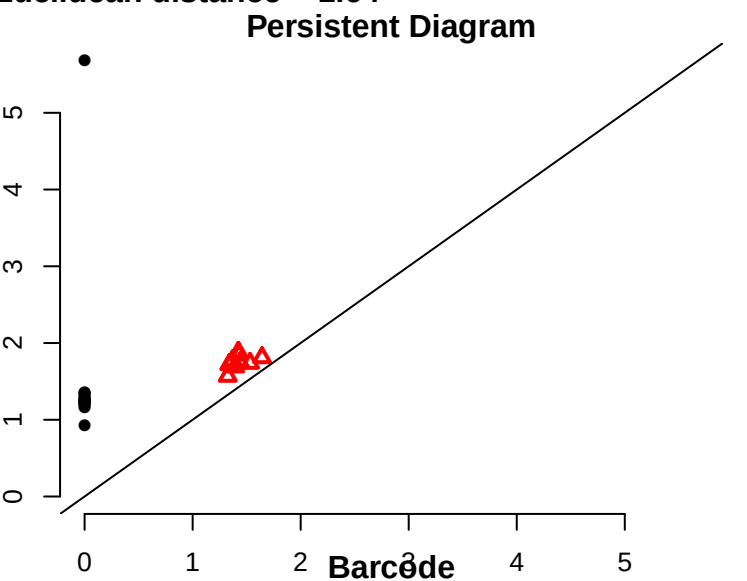
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



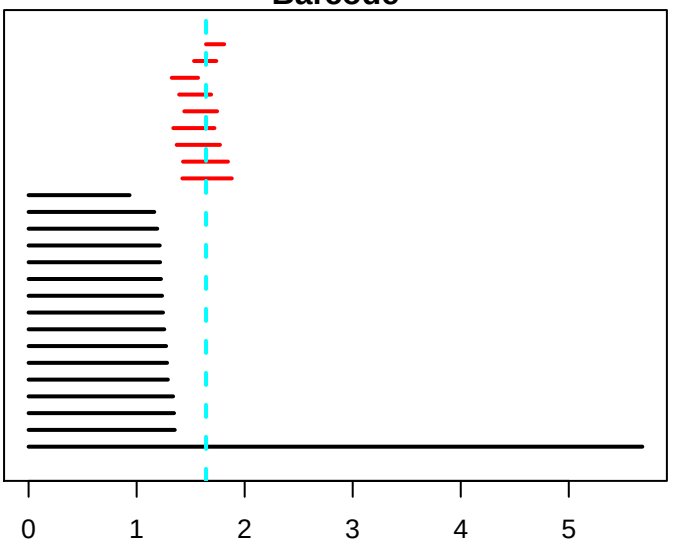
This is the 'Frame' at Euclidean distance = 1.64

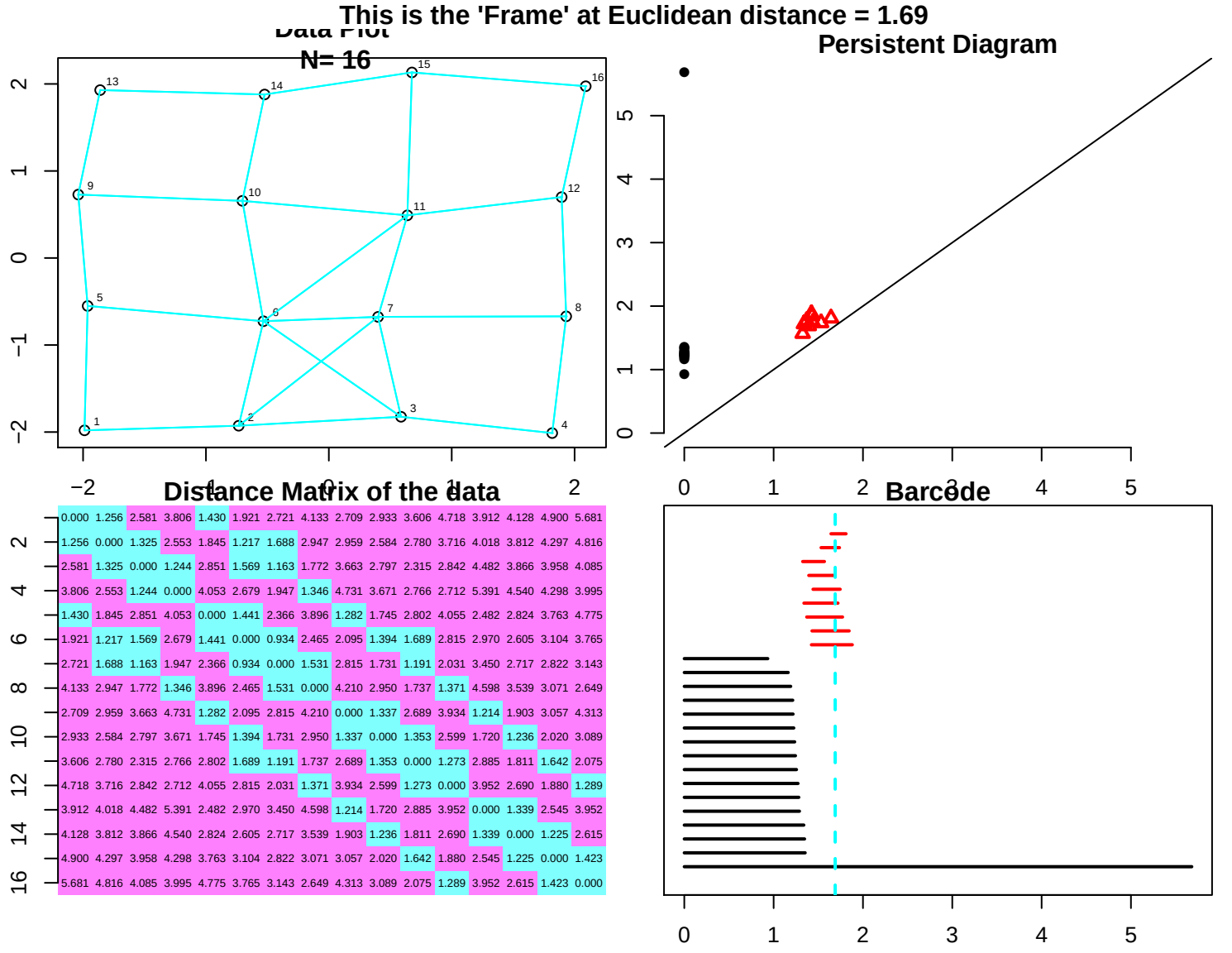




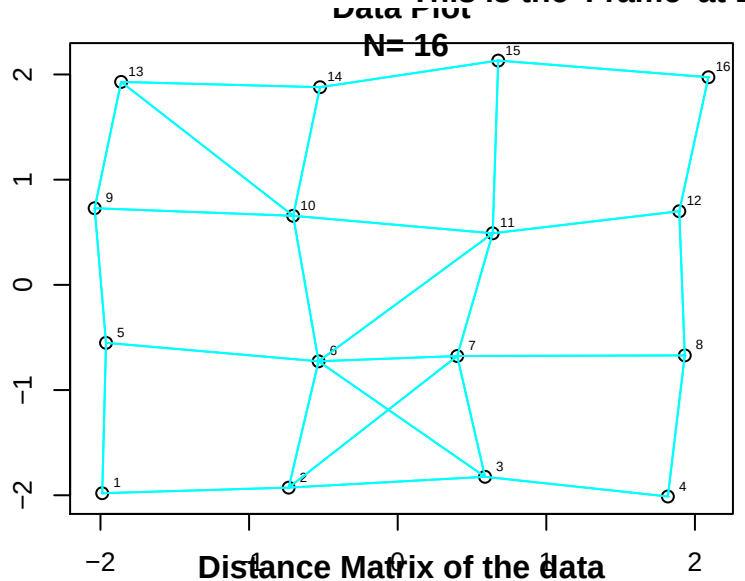
Distance Matrix of the data

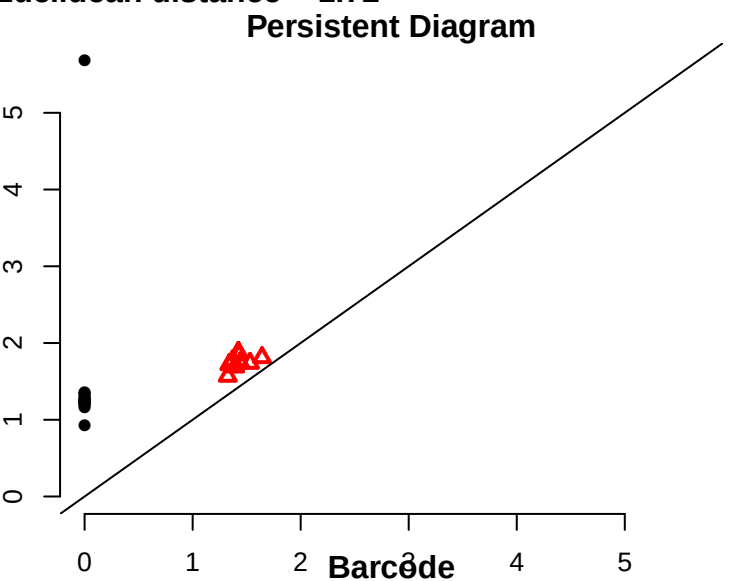
0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000




This is the 'Frame' at Euclidean distance = 1.69
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode
0.000 1.256 2.581 3.806 1.430 1.921 2.721 4.133 2.709 2.933 3.606 4.718 3.912 4.128 4.900 5.681
1.256 0.000 1.325 2.553 1.845 1.217 1.688 2.947 2.959 2.584 2.780 3.716 4.018 3.812 4.297 4.816
2.581 1.325 0.000 1.244 2.851 1.569 1.163 1.772 3.663 2.797 2.315 2.842 4.482 3.866 3.958 4.085
3.806 2.553 1.244 0.000 4.053 2.679 1.947 1.346 4.731 3.671 2.766 2.712 5.391 4.540 4.298 3.995
1.430 1.845 2.851 4.053 0.000 1.441 2.366 3.896 1.282 1.745 2.802 4.055 2.482 2.824 3.763 4.775
1.921 1.217 1.569 2.679 1.441 0.000 0.934 2.465 2.095 1.394 1.689 2.815 2.970 2.605 3.104 3.765
2.721 1.688 1.163 1.947 2.366 0.934 0.000 1.531 2.815 1.731 1.191 2.031 3.450 2.717 2.822 3.143
4.133 2.947 1.772 1.346 3.896 2.465 1.531 0.000 4.210 2.950 1.737 1.371 4.598 3.539 3.071 2.649
2.709 2.959 3.663 4.731 1.282 2.095 2.815 4.210 0.000 1.337 2.689 3.934 1.214 1.903 3.057 4.313
2.933 2.584 2.797 3.671 1.745 1.394 1.731 2.950 1.337 0.000 1.353 2.599 1.720 1.236 2.020 3.089
3.606 2.780 2.315 2.766 2.802 1.689 1.191 1.737 2.689 1.353 0.000 1.273 2.885 1.811 1.642 2.075
4.718 3.716 2.842 2.712 4.055 2.815 2.031 1.371 3.934 2.599 1.273 0.000 3.952 2.690 1.880 1.289
3.912 4.018 4.482 5.391 2.482 2.970 3.450 4.598 1.214 1.720 2.885 3.952 0.000 1.339 2.545 3.952
4.128 3.812 3.866 4.540 2.824 2.605 2.717 3.539 1.903 1.236 1.811 2.690 1.339 0.000 1.225 2.615
4.900 4.297 3.958 4.298 3.763 3.104 2.822 3.071 3.057 2.020 1.642 1.880 2.545 1.225 0.000 1.423
5.681 4.816 4.085 3.995 4.775 3.765 3.143 2.649 4.313 3.089 2.075 1.289 3.952 2.615 1.423 0.000

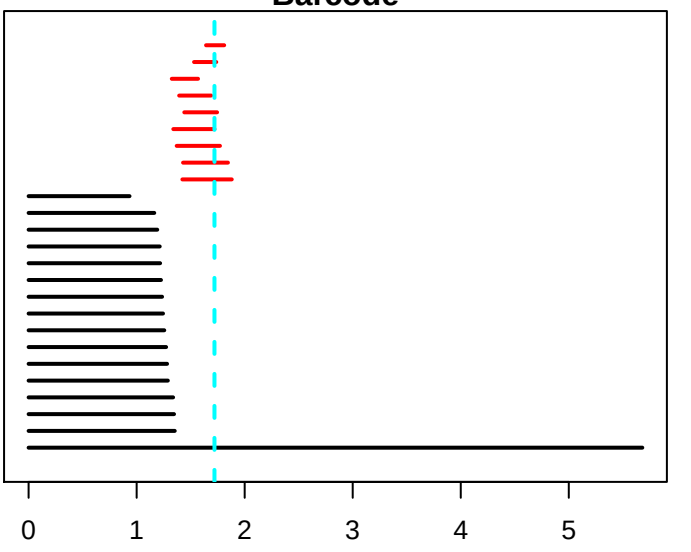
This is the 'Frame' at Euclidean distance = 1.72



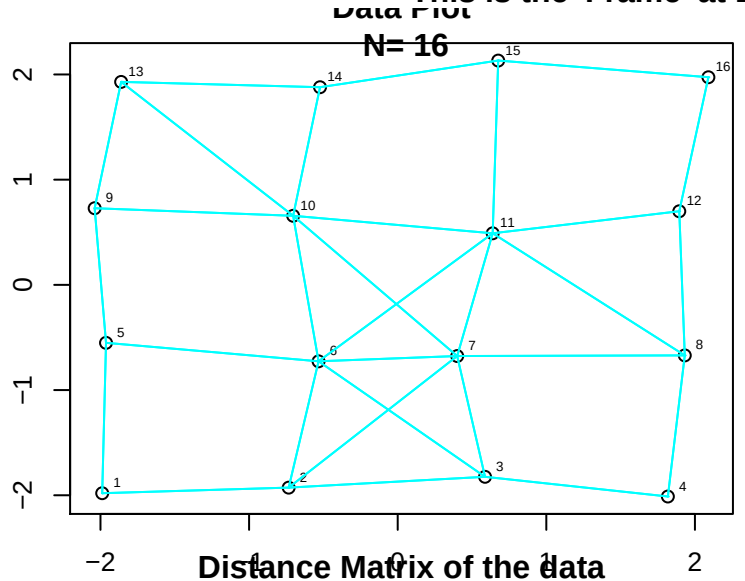


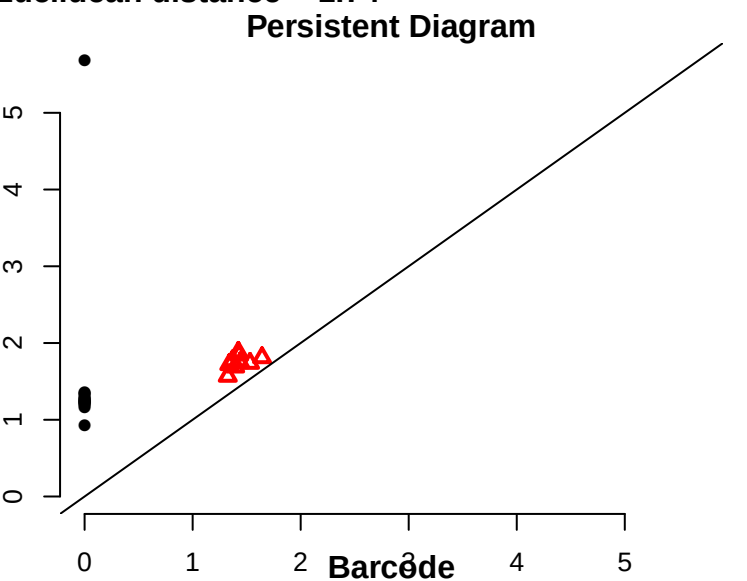
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



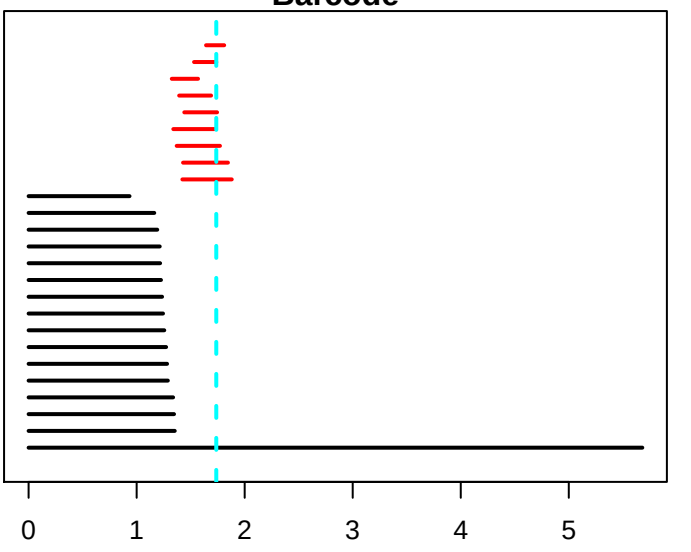
This is the 'Frame' at Euclidean distance = 1.74



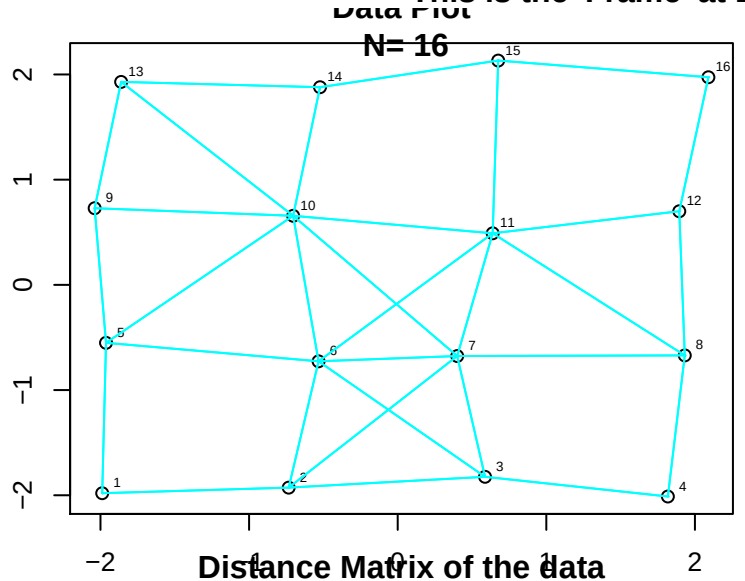


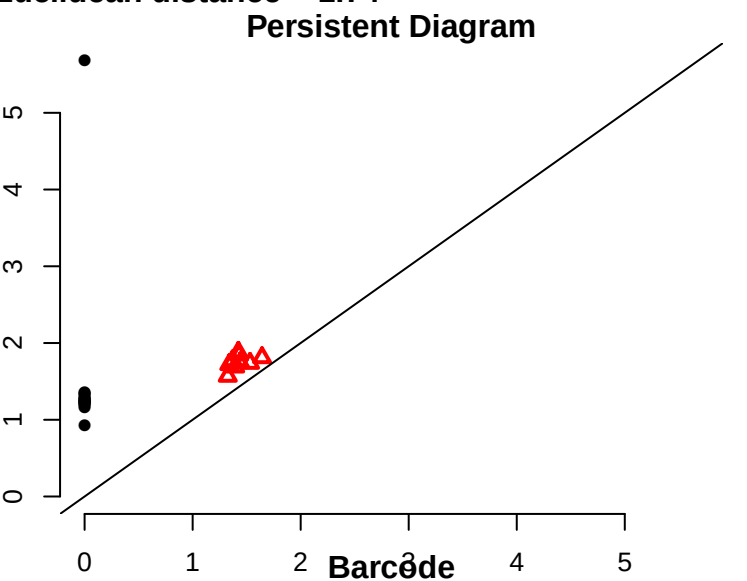
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



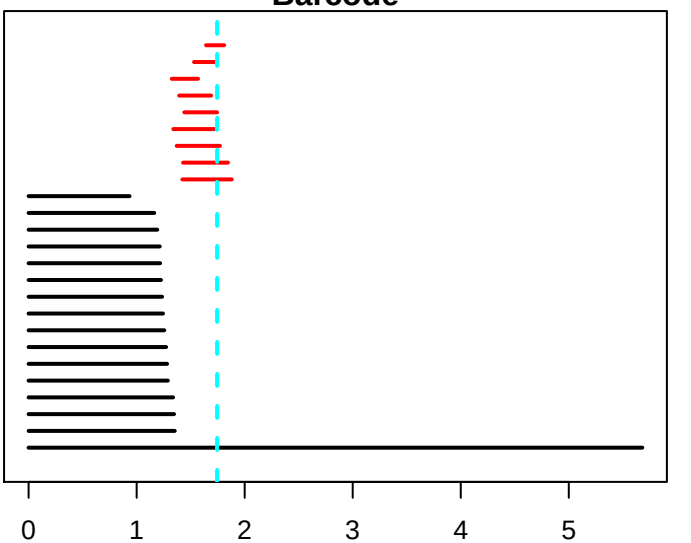
This is the 'Frame' at Euclidean distance = 1.74



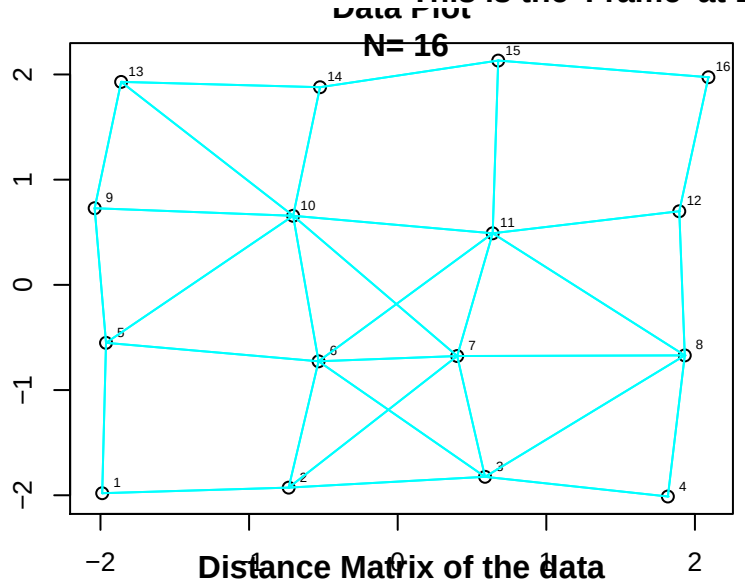


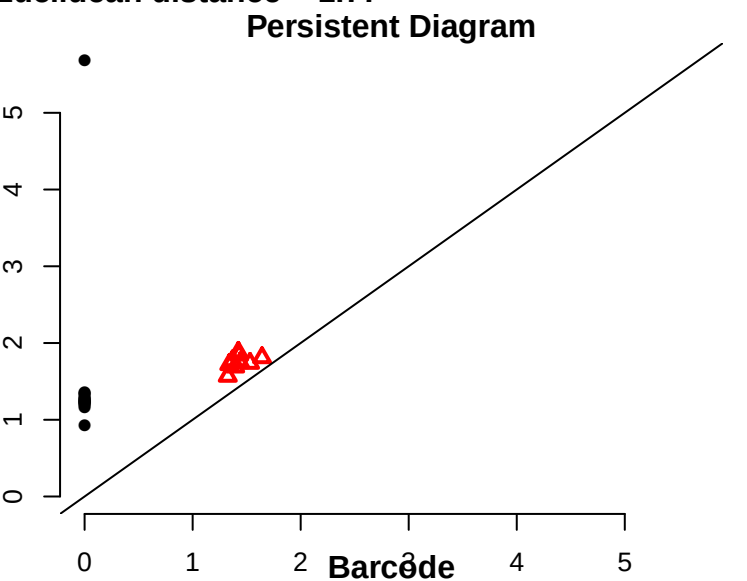
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



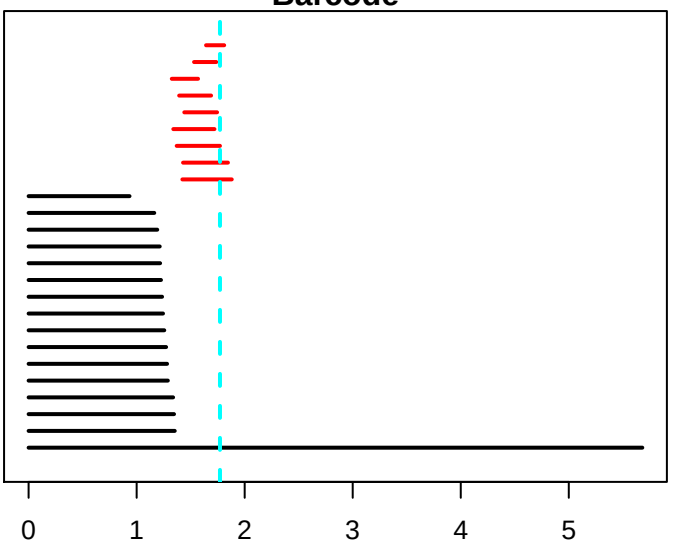
This is the 'Frame' at Euclidean distance = 1.77



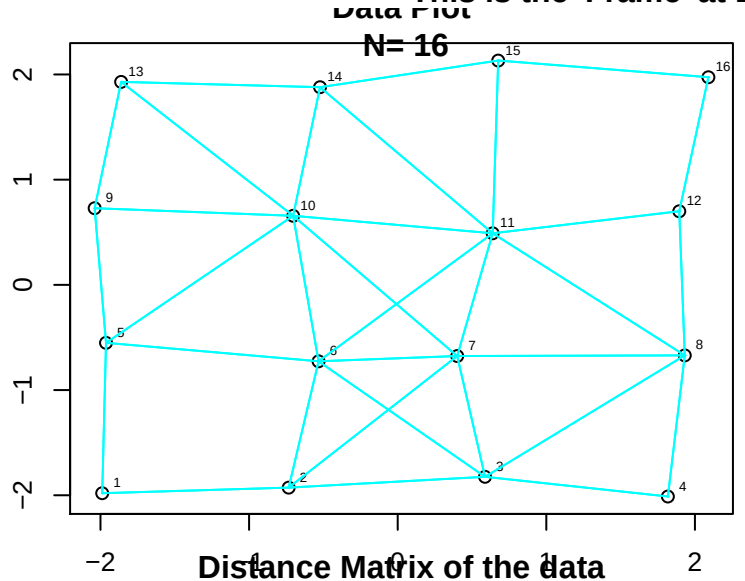


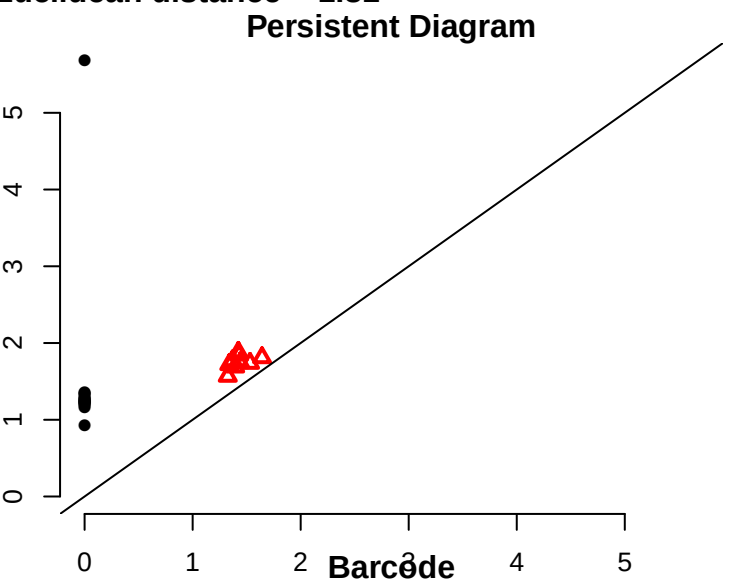
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



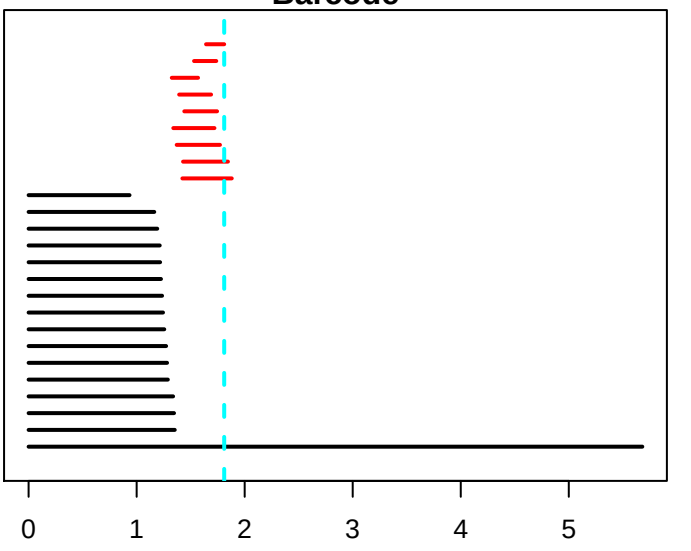
This is the 'Frame' at Euclidean distance = 1.81



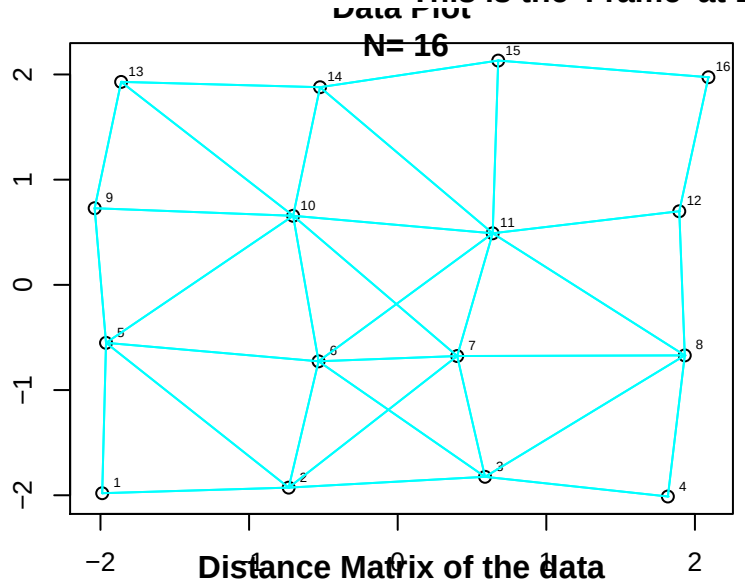


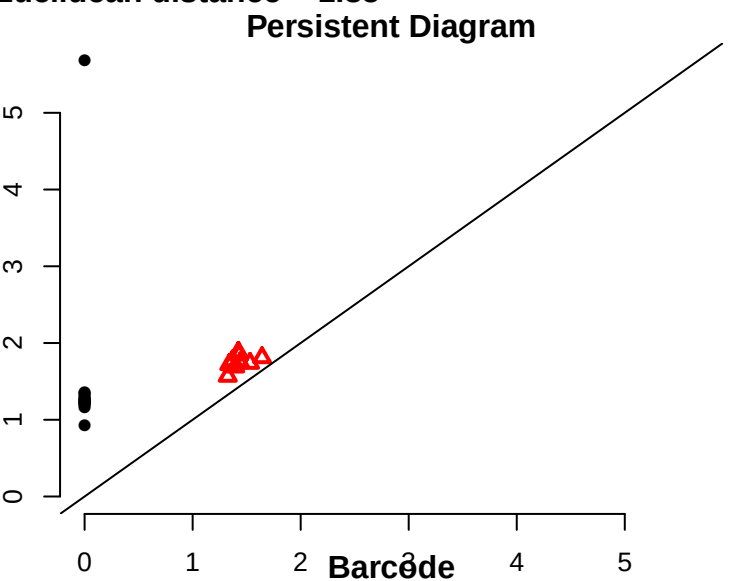
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



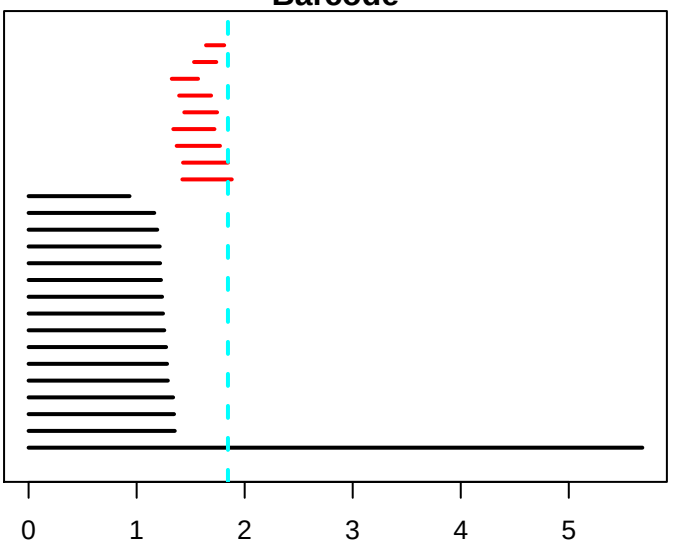
This is the 'Frame' at Euclidean distance = 1.85



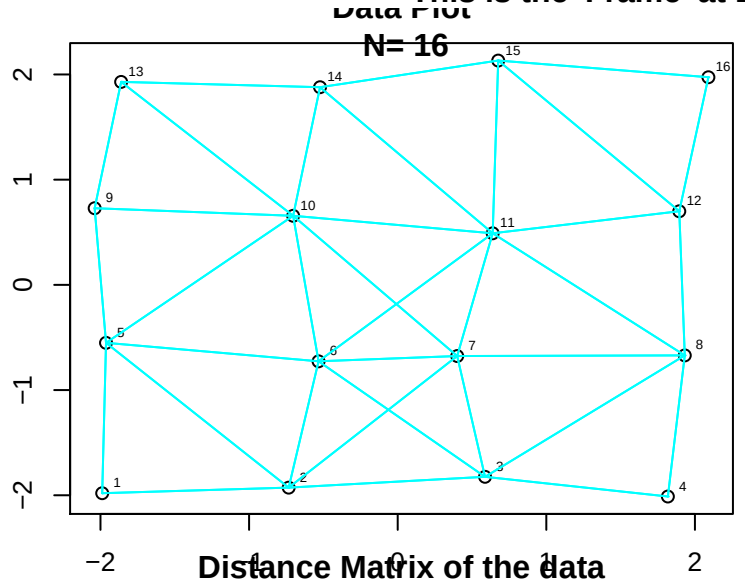


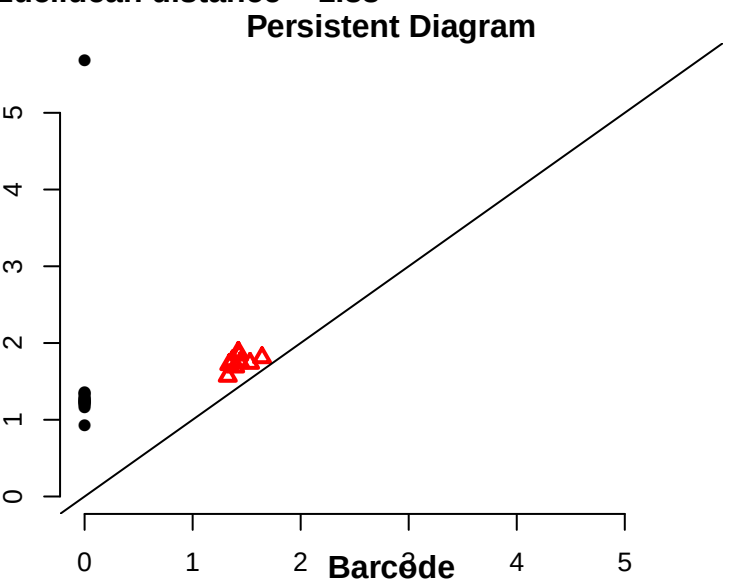
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



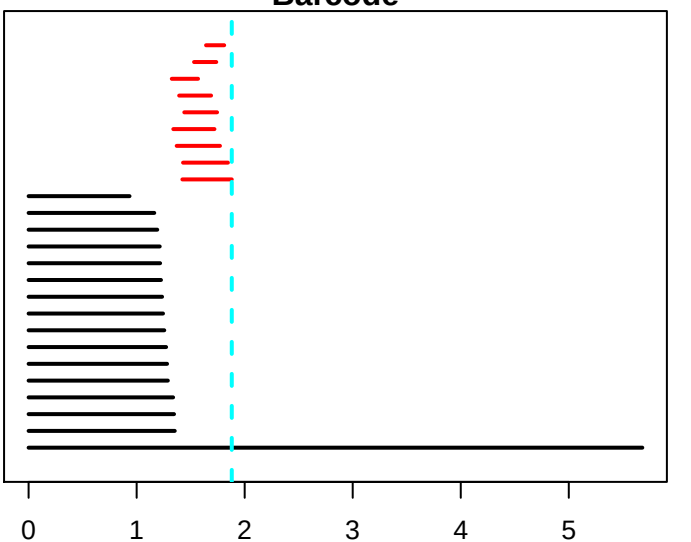
This is the 'Frame' at Euclidean distance = 1.88



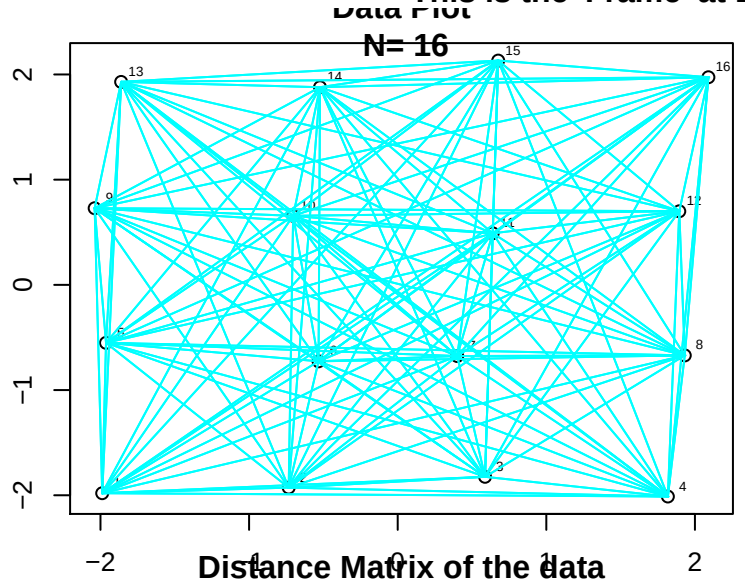


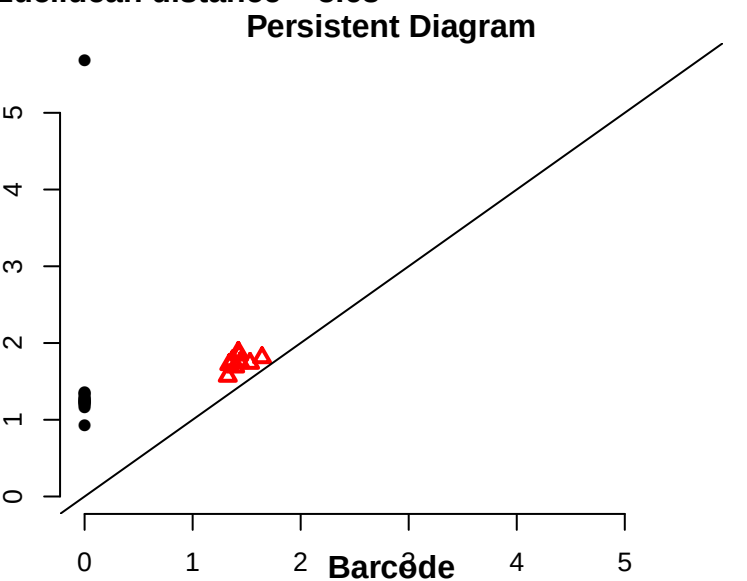
Distance Matrix of the data

0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



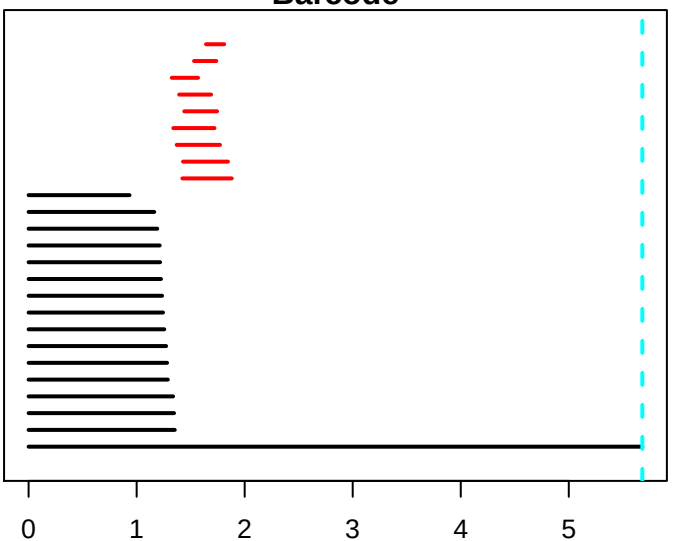
This is the 'Frame' at Euclidean distance = 5.68





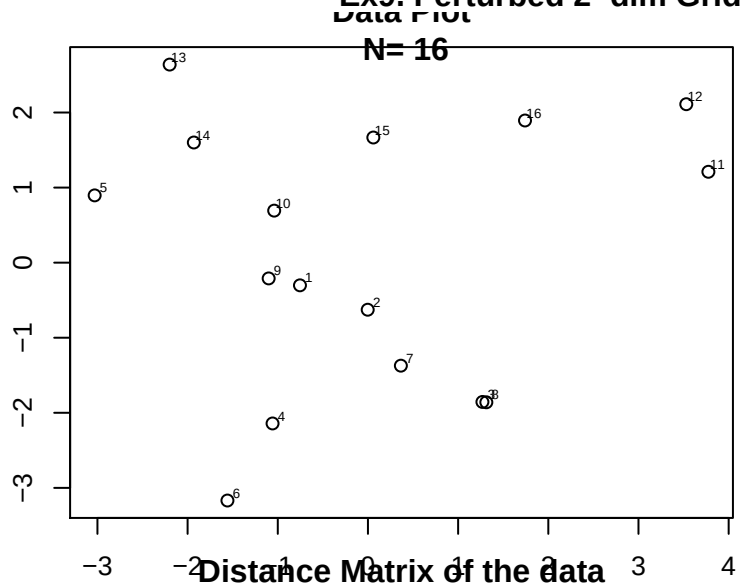
Distance Matrix of the data

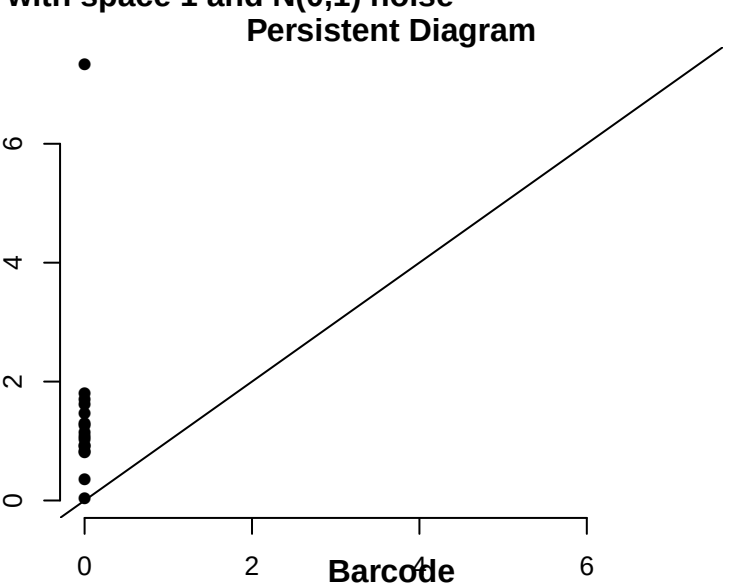
0.000	1.256	2.581	3.806	1.430	1.921	2.721	4.133	2.709	2.933	3.606	4.718	3.912	4.128	4.900	5.681
1.256	0.000	1.325	2.553	1.845	1.217	1.688	2.947	2.959	2.584	2.780	3.716	4.018	3.812	4.297	4.816
2.581	1.325	0.000	1.244	2.851	1.569	1.163	1.772	3.663	2.797	2.315	2.842	4.482	3.866	3.958	4.085
3.806	2.553	1.244	0.000	4.053	2.679	1.947	1.346	4.731	3.671	2.766	2.712	5.391	4.540	4.298	3.995
1.430	1.845	2.851	4.053	0.000	1.441	2.366	3.896	1.282	1.745	2.802	4.055	2.482	2.824	3.763	4.775
1.921	1.217	1.569	2.679	1.441	0.000	0.934	2.465	2.095	1.394	1.689	2.815	2.970	2.605	3.104	3.765
2.721	1.688	1.163	1.947	2.366	0.934	0.000	1.531	2.815	1.731	1.191	2.031	3.450	2.717	2.822	3.143
4.133	2.947	1.772	1.346	3.896	2.465	1.531	0.000	4.210	2.950	1.737	1.371	4.598	3.539	3.071	2.649
2.709	2.959	3.663	4.731	1.282	2.095	2.815	4.210	0.000	1.337	2.689	3.934	1.214	1.903	3.057	4.313
2.933	2.584	2.797	3.671	1.745	1.394	1.731	2.950	1.337	0.000	1.353	2.599	1.720	1.236	2.020	3.089
3.606	2.780	2.315	2.766	2.802	1.689	1.191	1.737	2.689	1.353	0.000	1.273	2.885	1.811	1.642	2.075
4.718	3.716	2.842	2.712	4.055	2.815	2.031	1.371	3.934	2.599	1.273	0.000	3.952	2.690	1.880	1.289
3.912	4.018	4.482	5.391	2.482	2.970	3.450	4.598	1.214	1.720	2.885	3.952	0.000	1.339	2.545	3.952
4.128	3.812	3.866	4.540	2.824	2.605	2.717	3.539	1.903	1.236	1.811	2.690	1.339	0.000	1.225	2.615
4.900	4.297	3.958	4.298	3.763	3.104	2.822	3.071	3.057	2.020	1.642	1.880	2.545	1.225	0.000	1.423
5.681	4.816	4.085	3.995	4.775	3.765	3.143	2.649	4.313	3.089	2.075	1.289	3.952	2.615	1.423	0.000



Result and Frame−by−frame plots for Example 9

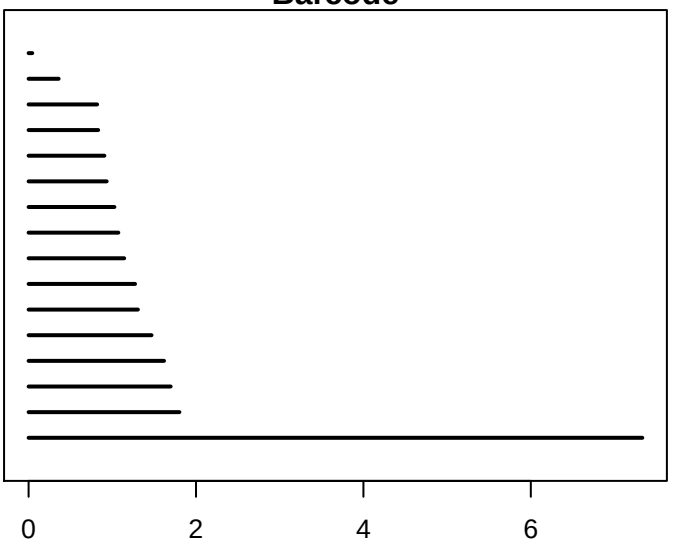
Ex9. Perturbed 2−dim Grid with space 1 and N(0,1) noise



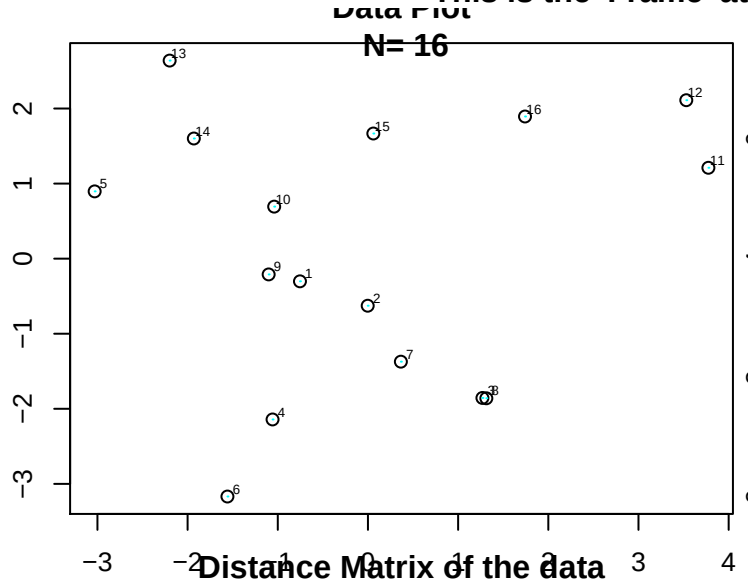


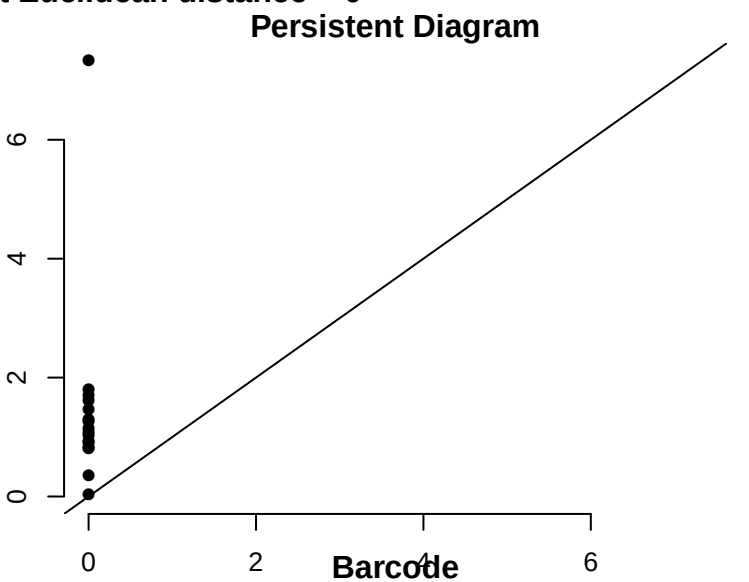
Distance Matrix of the data

0.000	0.819	2.551	1.865	2.573	2.977	1.549	2.588	0.359	1.035	4.775	4.917	3.276	2.237	2.130	3.324
0.819	0.000	1.768	1.846	3.390	2.980	0.831	1.803	1.175	1.679	4.201	4.469	3.936	2.946	2.295	3.065
2.551	1.768	0.000	2.345	5.105	3.118	1.025	0.044	2.885	3.439	3.960	4.565	5.677	4.710	3.724	3.779
1.865	1.846	2.345	0.000	3.623	1.142	1.618	2.387	1.932	2.835	5.882	6.256	4.915	3.843	3.970	4.912
2.573	3.390	5.105	3.623	0.000	4.323	4.084	5.144	2.224	2.001	6.813	6.672	1.931	1.306	3.185	4.875
2.977	2.980	3.118	1.142	4.323	0.000	2.632	3.155	2.994	3.896	6.901	7.332	5.842	4.783	5.099	6.043
1.549	0.831	1.025	1.618	4.084	2.632	0.000	1.066	1.871	2.498	4.278	4.706	4.761	3.756	3.055	3.544
2.588	1.803	0.044	2.387	5.144	3.155	1.066	0.000	2.924	3.472	3.936	4.548	5.707	4.743	3.743	3.778
0.359	1.175	2.885	1.932	2.224	2.994	1.871	2.924	0.000	0.905	5.079	5.180	3.053	1.992	2.207	3.536
1.035	1.679	3.439	2.835	2.001	3.896	2.498	3.472	0.905	0.000	4.843	4.785	2.265	1.272	1.469	3.029
4.775	4.201	3.960	5.882	6.813	6.901	4.278	3.936	5.079	4.843	0.000	0.933	6.143	5.719	3.744	2.145
4.917	4.469	4.565	6.256	6.672	7.332	4.706	4.548	5.180	4.785	0.933	0.000	5.754	5.485	3.499	1.802
3.276	3.936	5.677	4.915	1.931	5.842	4.761	5.707	3.053	2.265	6.143	5.754	0.000	1.072	2.459	4.011
2.237	2.946	4.710	3.843	1.306	4.783	3.756	4.743	1.992	1.272	5.719	5.485	1.072	0.000	1.992	3.684
2.130	2.295	3.724	3.970	3.185	5.099	3.055	3.743	2.207	1.469	3.744	3.499	2.459	1.992	0.000	1.697
3.324	3.065	3.779	4.912	4.875	6.043	3.544	3.778	3.536	3.029	2.145	1.802	4.011	3.684	1.697	0.000



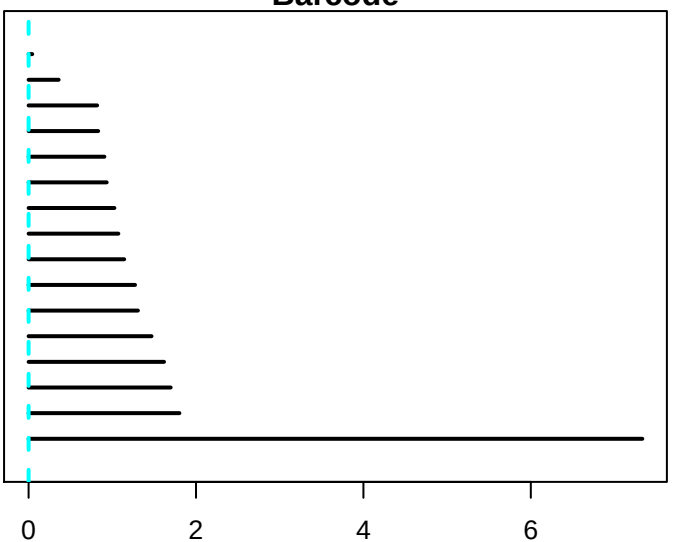
This is the 'Frame' at Euclidean distance = 0

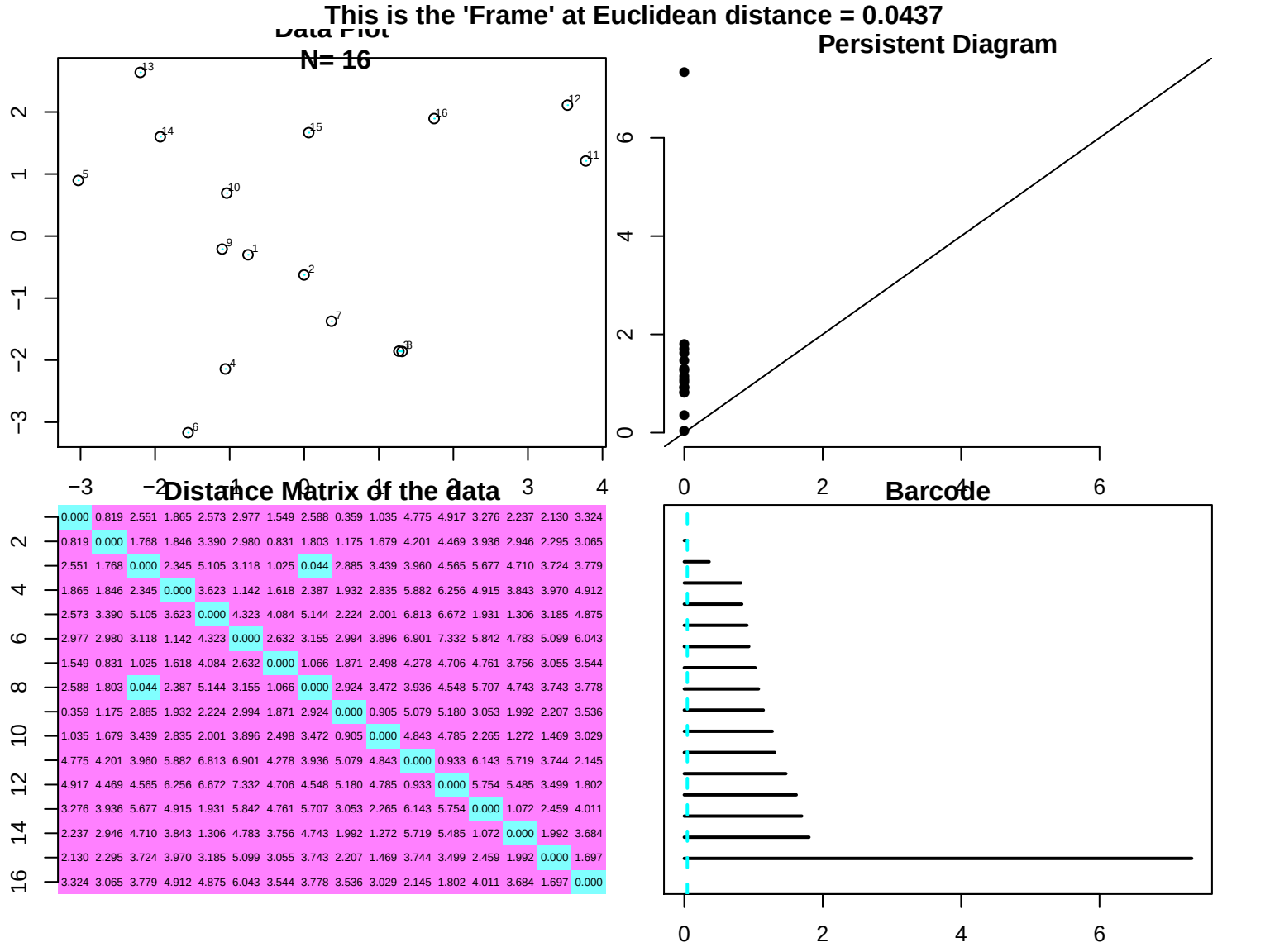


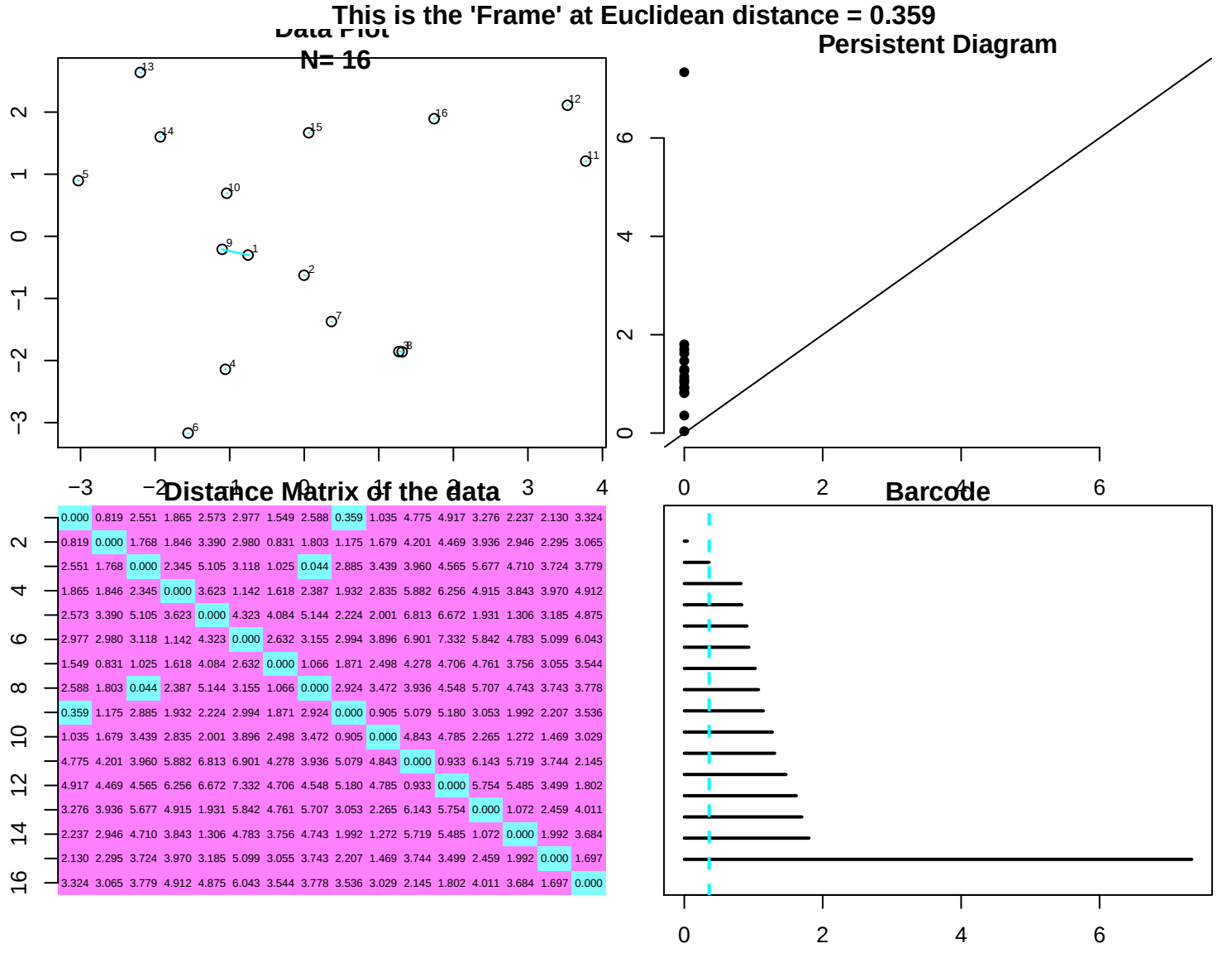


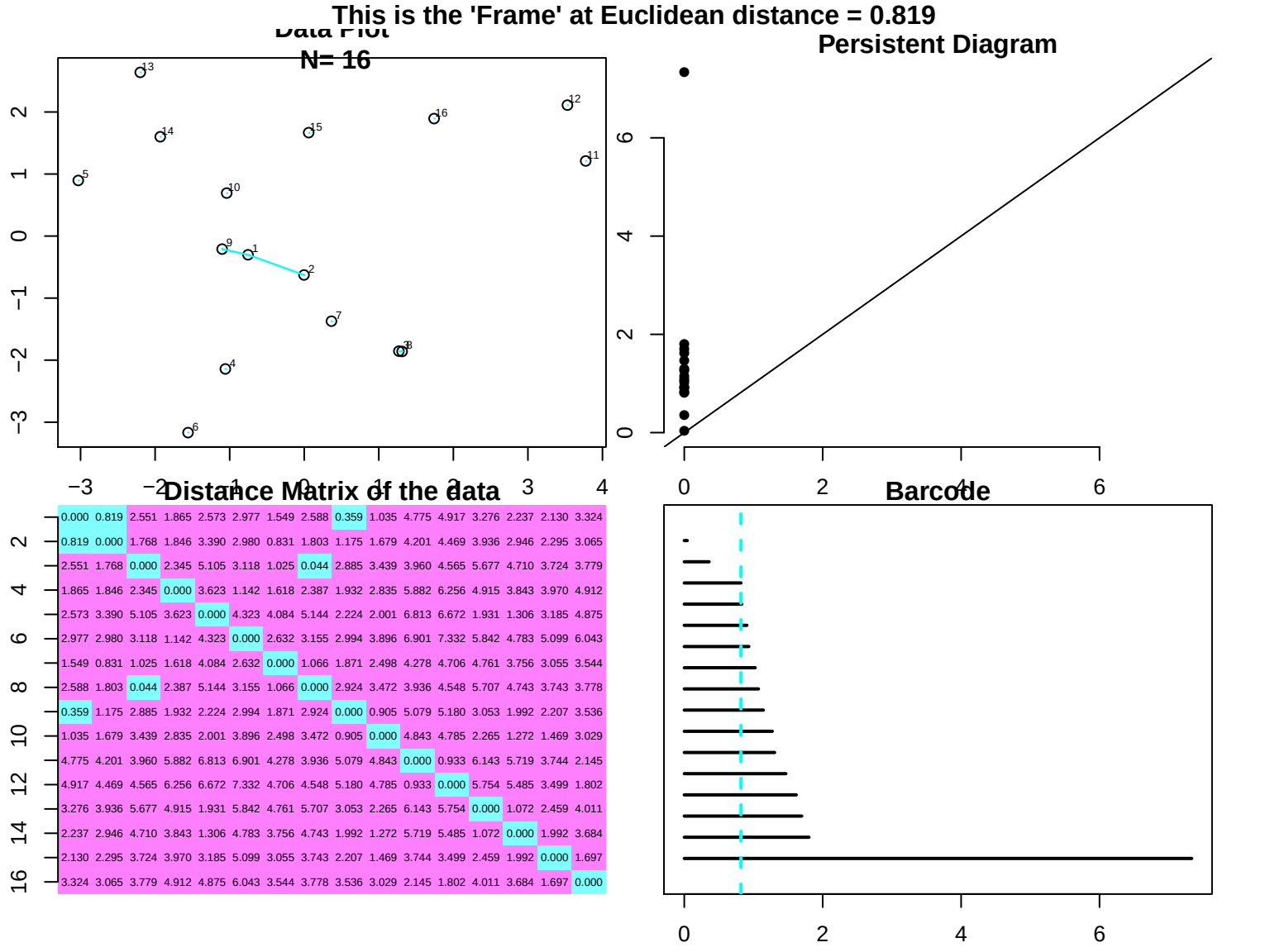
Distance Matrix of the data

0.000	0.819	2.551	1.865	2.573	2.977	1.549	2.588	0.359	1.035	4.775	4.917	3.276	2.237	2.130	3.324
0.819	0.000	1.768	1.846	3.390	2.980	0.831	1.803	1.175	1.679	4.201	4.469	3.936	2.946	2.295	3.065
2.551	1.768	0.000	2.345	5.105	3.118	1.025	0.044	2.885	3.439	3.960	4.565	5.677	4.710	3.724	3.779
1.865	1.846	2.345	0.000	3.623	1.142	1.618	2.387	1.932	2.835	5.882	6.256	4.915	3.843	3.970	4.912
2.573	3.390	5.105	3.623	0.000	4.323	4.084	5.144	2.224	2.001	6.813	6.672	1.931	1.306	3.185	4.875
2.977	2.980	3.118	1.142	4.323	0.000	2.632	3.155	2.994	3.896	6.901	7.332	5.842	4.783	5.099	6.043
1.549	0.831	1.025	1.618	4.084	2.632	0.000	1.066	1.871	2.498	4.278	4.706	4.761	3.756	3.055	3.544
2.588	1.803	0.044	2.387	5.144	3.155	1.066	0.000	2.924	3.472	3.936	4.548	5.707	4.743	3.743	3.778
0.359	1.175	2.885	1.932	2.224	2.994	1.871	2.924	0.000	0.905	5.079	5.180	3.053	1.992	2.207	3.536
1.035	1.679	3.439	2.835	2.001	3.896	2.498	3.472	0.905	0.000	4.843	4.785	2.265	1.272	1.469	3.029
4.775	4.201	3.960	5.882	6.813	6.901	4.278	3.936	5.079	4.843	0.000	0.933	6.143	5.719	3.744	2.145
4.917	4.469	4.565	6.256	6.672	7.332	4.706	4.548	5.180	4.785	0.933	0.000	5.754	5.485	3.499	1.802
3.276	3.936	5.677	4.915	1.931	5.842	4.761	5.707	3.053	2.265	6.143	5.754	0.000	1.072	2.459	4.011
2.237	2.946	4.710	3.843	1.306	4.783	3.756	4.743	1.992	1.272	5.719	5.485	1.072	0.000	1.992	3.684
2.130	2.295	3.724	3.970	3.185	5.099	3.055	3.743	2.207	1.469	3.744	3.499	2.459	1.992	0.000	1.697
3.324	3.065	3.779	4.912	4.875	6.043	3.544	3.778	3.536	3.029	2.145	1.802	4.011	3.684	1.697	0.000

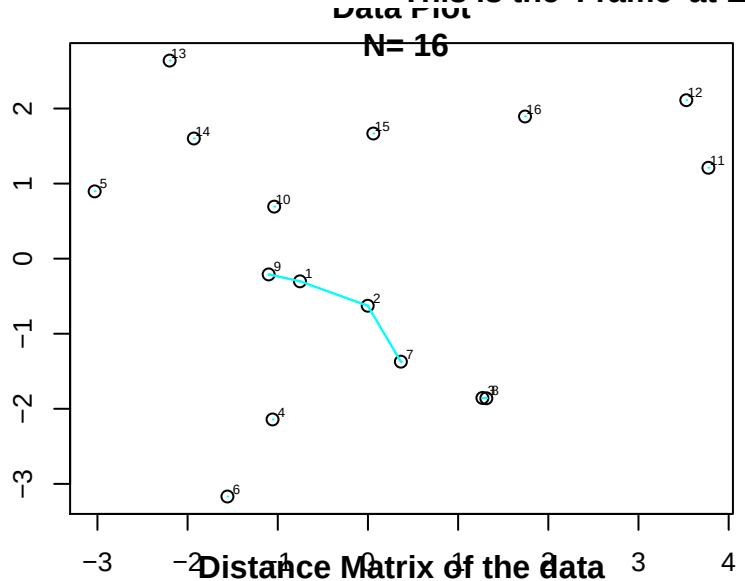


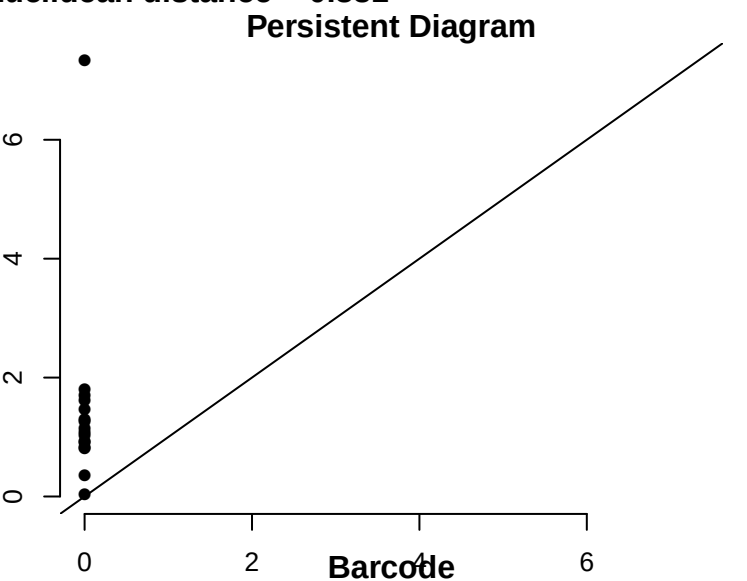

This is the 'Frame' at Euclidean distance = 0.0437
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode


This is the 'Frame' at Euclidean distance = 0.359
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode
0.000 0.819 2.551 1.865 2.573 2.977 1.549 2.588 0.359 1.035 4.775 4.917 3.276 2.237 2.130 3.324
0.819 0.000 1.768 1.846 3.390 2.980 0.831 1.803 1.175 1.679 4.201 4.469 3.936 2.946 2.295 3.065
2.551 1.768 0.000 2.345 5.105 3.118 1.025 0.044 2.885 3.439 3.960 4.565 5.677 4.710 3.724 3.779
1.865 1.846 2.345 0.000 3.623 1.142 1.618 2.387 1.932 2.835 5.882 6.256 4.915 3.843 3.970 4.912
2.573 3.390 5.105 3.623 0.000 4.323 4.084 5.144 2.224 2.001 6.813 6.672 1.931 1.306 3.185 4.875
2.977 2.980 3.118 1.142 4.323 0.000 2.632 3.155 2.994 3.896 6.901 7.332 5.842 4.783 5.099 6.043
1.549 0.831 1.025 1.618 4.084 2.632 0.000 1.066 1.871 2.498 4.278 4.706 4.761 3.756 3.055 3.544
2.588 1.803 0.044 2.387 5.144 3.155 1.066 0.000 2.924 3.472 3.936 4.548 5.707 4.743 3.743 3.778
0.359 1.175 2.885 1.932 2.224 2.994 1.871 2.924 0.000 0.905 5.079 5.180 3.053 1.992 2.207 3.536
1.035 1.679 3.439 2.835 2.001 3.896 2.498 3.472 0.905 0.000 4.843 4.785 2.265 1.272 1.469 3.029
4.775 4.201 3.960 5.882 6.813 6.901 4.278 3.936 5.079 4.843 0.000 0.933 6.143 5.719 3.744 2.145
4.917 4.469 4.565 6.256 6.672 7.332 4.706 4.548 5.180 4.785 0.933 0.000 5.754 5.485 3.499 1.802
3.276 3.936 5.677 4.915 1.931 5.842 4.761 5.707 3.053 2.265 6.143 5.754 0.000 1.072 2.459 4.011
2.237 2.946 4.710 3.843 1.306 4.783 3.756 4.743 1.992 1.272 5.719 5.485 1.072 0.000 1.992 3.684
2.130 2.295 3.724 3.970 3.185 5.099 3.055 3.743 2.207 1.469 3.744 3.499 2.459 1.992 0.000 1.697
3.324 3.065 3.779 4.912 4.875 6.043 3.544 3.778 3.536 3.029 2.145 1.802 4.011 3.684 1.697 0.000


This is the 'Frame' at Euclidean distance = 0.819
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode

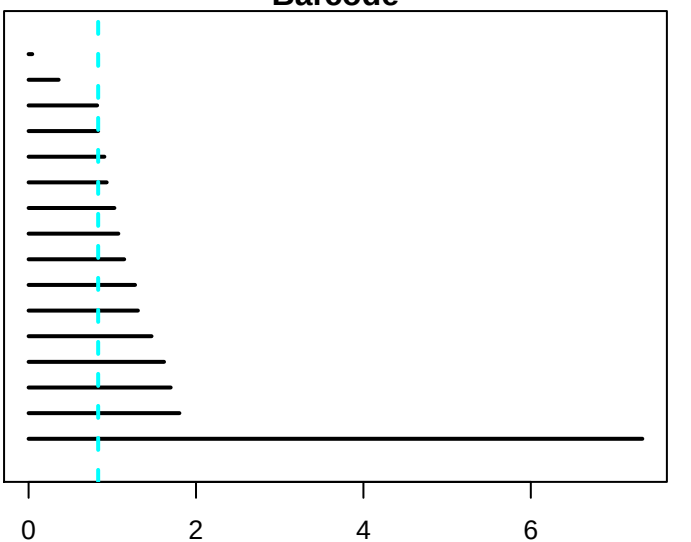
This is the 'Frame' at Euclidean distance = 0.831



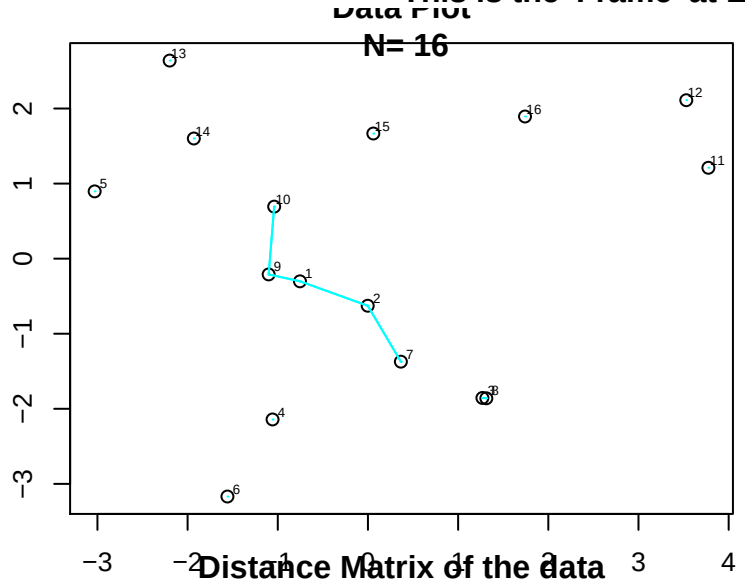


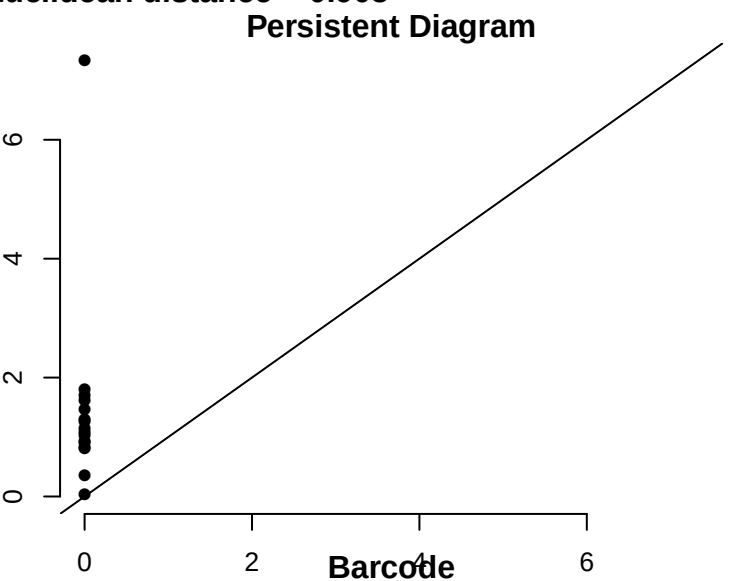
Distance Matrix of the data

0.000	0.819	2.551	1.865	2.573	2.977	1.549	2.588	0.359	1.035	4.775	4.917	3.276	2.237	2.130	3.324
0.819	0.000	1.768	1.846	3.390	2.980	0.831	1.803	1.175	1.679	4.201	4.469	3.936	2.946	2.295	3.065
2.551	1.768	0.000	2.345	5.105	3.118	1.025	0.044	2.885	3.439	3.960	4.565	5.677	4.710	3.724	3.779
1.865	1.846	2.345	0.000	3.623	1.142	1.618	2.387	1.932	2.835	5.882	6.256	4.915	3.843	3.970	4.912
2.573	3.390	5.105	3.623	0.000	4.323	4.084	5.144	2.224	2.001	6.813	6.672	1.931	1.306	3.185	4.875
2.977	2.980	3.118	1.142	4.323	0.000	2.632	3.155	2.994	3.896	6.901	7.332	5.842	4.783	5.099	6.043
1.549	0.831	1.025	1.618	4.084	2.632	0.000	1.066	1.871	2.498	4.278	4.706	4.761	3.756	3.055	3.544
2.588	1.803	0.044	2.387	5.144	3.155	1.066	0.000	2.924	3.472	3.936	4.548	5.707	4.743	3.743	3.778
0.359	1.175	2.885	1.932	2.224	2.994	1.871	2.924	0.000	0.905	5.079	5.180	3.053	1.992	2.207	3.536
1.035	1.679	3.439	2.835	2.001	3.896	2.498	3.472	0.905	0.000	4.843	4.785	2.265	1.272	1.469	3.029
4.775	4.201	3.960	5.882	6.813	6.901	4.278	3.936	5.079	4.843	0.000	0.933	6.143	5.719	3.744	2.145
4.917	4.469	4.565	6.256	6.672	7.332	4.706	4.548	5.180	4.785	0.933	0.000	5.754	5.485	3.499	1.802
3.276	3.936	5.677	4.915	1.931	5.842	4.761	5.707	3.053	2.265	6.143	5.754	0.000	1.072	2.459	4.011
2.237	2.946	4.710	3.843	1.306	4.783	3.756	4.743	1.992	1.272	5.719	5.485	1.072	0.000	1.992	3.684
2.130	2.295	3.724	3.970	3.185	5.099	3.055	3.743	2.207	1.469	3.744	3.499	2.459	1.992	0.000	1.697
3.324	3.065	3.779	4.912	4.875	6.043	3.544	3.778	3.536	3.029	2.145	1.802	4.011	3.684	1.697	0.000



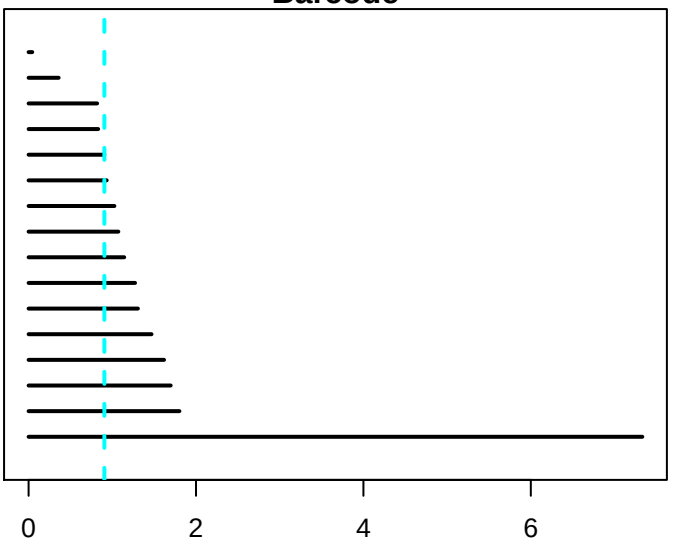
This is the 'Frame' at Euclidean distance = 0.905

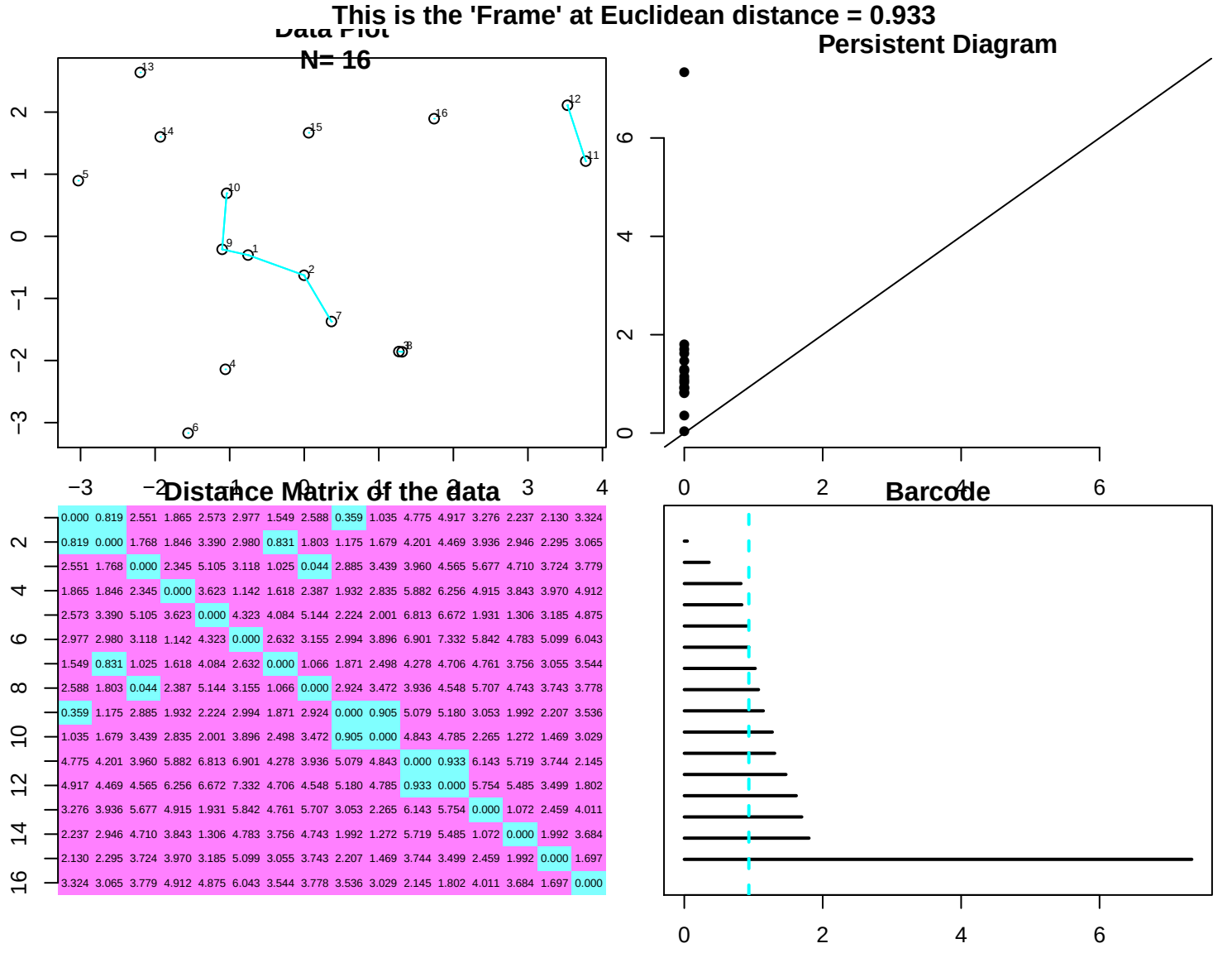




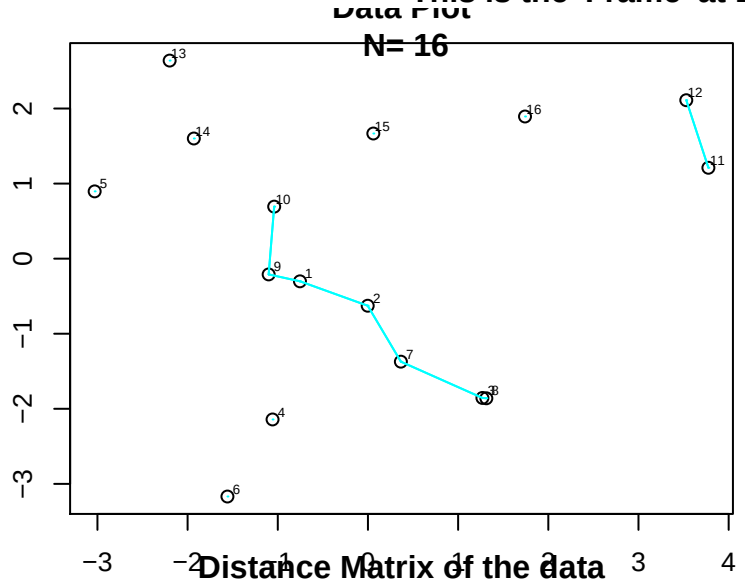
Distance Matrix of the data

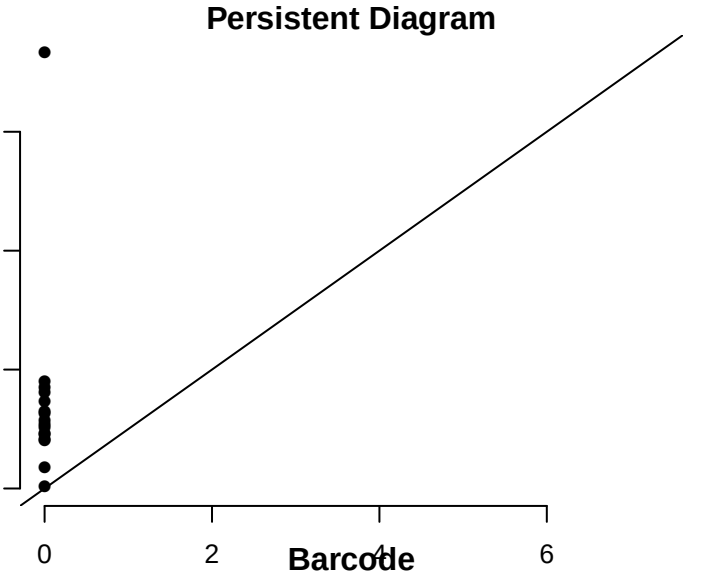
0.000	0.819	2.551	1.865	2.573	2.977	1.549	2.588	0.359	1.035	4.775	4.917	3.276	2.237	2.130	3.324
0.819	0.000	1.768	1.846	3.390	2.980	0.831	1.803	1.175	1.679	4.201	4.469	3.936	2.946	2.295	3.065
2.551	1.768	0.000	2.345	5.105	3.118	1.025	0.044	2.885	3.439	3.960	4.565	5.677	4.710	3.724	3.779
1.865	1.846	2.345	0.000	3.623	1.142	1.618	2.387	1.932	2.835	5.882	6.256	4.915	3.843	3.970	4.912
2.573	3.390	5.105	3.623	0.000	4.323	4.084	5.144	2.224	2.001	6.813	6.672	1.931	1.306	3.185	4.875
2.977	2.980	3.118	1.142	4.323	0.000	2.632	3.155	2.994	3.896	6.901	7.332	5.842	4.783	5.099	6.043
1.549	0.831	1.025	1.618	4.084	2.632	0.000	1.066	1.871	2.498	4.278	4.706	4.761	3.756	3.055	3.544
2.588	1.803	0.044	2.387	5.144	3.155	1.066	0.000	2.924	3.472	3.936	4.548	5.707	4.743	3.743	3.778
0.359	1.175	2.885	1.932	2.224	2.994	1.871	2.924	0.000	0.905	5.079	5.180	3.053	1.992	2.207	3.536
1.035	1.679	3.439	2.835	2.001	3.896	2.498	3.472	0.905	0.000	4.843	4.785	2.265	1.272	1.469	3.029
4.775	4.201	3.960	5.882	6.813	6.901	4.278	3.936	5.079	4.843	0.000	0.933	6.143	5.719	3.744	2.145
4.917	4.469	4.565	6.256	6.672	7.332	4.706	4.548	5.180	4.785	0.933	0.000	5.754	5.485	3.499	1.802
3.276	3.936	5.677	4.915	1.931	5.842	4.761	5.707	3.053	2.265	6.143	5.754	0.000	1.072	2.459	4.011
2.237	2.946	4.710	3.843	1.306	4.783	3.756	4.743	1.992	1.272	5.719	5.485	1.072	0.000	1.992	3.684
2.130	2.295	3.724	3.970	3.185	5.099	3.055	3.743	2.207	1.469	3.744	3.499	2.459	1.992	0.000	1.697
3.324	3.065	3.779	4.912	4.875	6.043	3.544	3.778	3.536	3.029	2.145	1.802	4.011	3.684	1.697	0.000




This is the 'Frame' at Euclidean distance = 0.933
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode

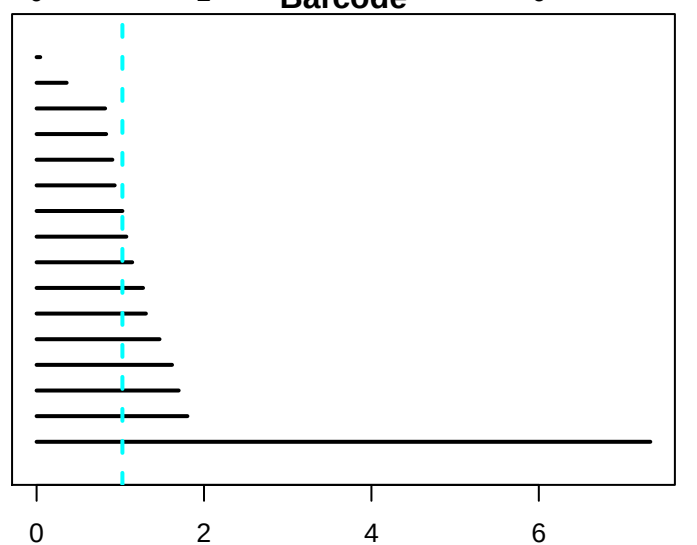
This is the 'Frame' at Euclidean distance = 1.03



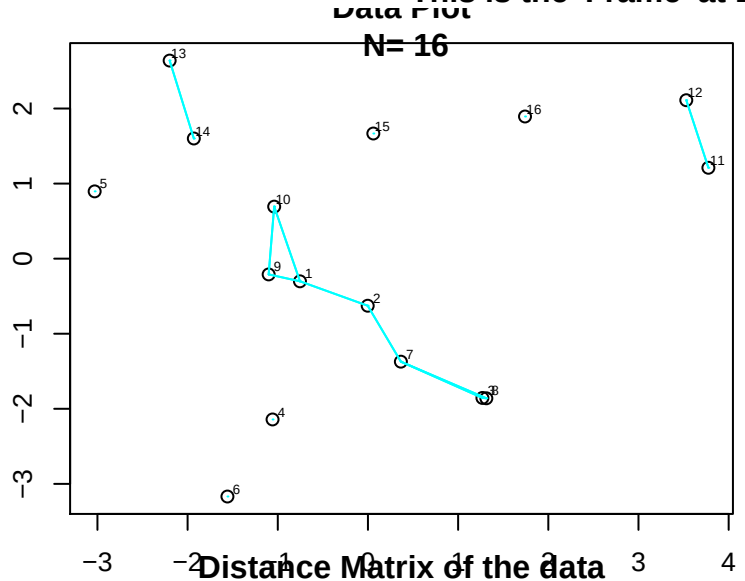


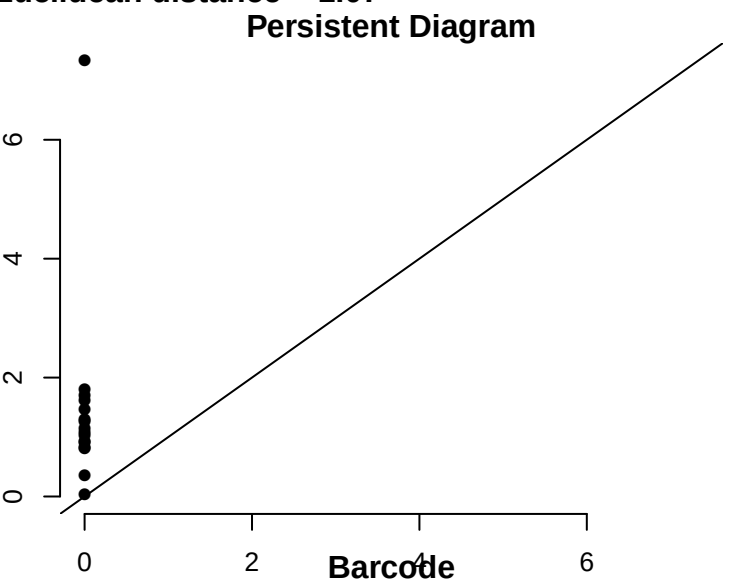
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.000	0.819	2.551	1.865	2.573	2.977	1.549	2.588	0.359	1.035	4.775	4.917	3.276	2.237	2.130	3.324
2	0.819	0.000	1.768	1.846	3.390	2.980	0.831	1.803	1.175	1.679	4.201	4.469	3.936	2.946	2.295	3.065
3	2.551	1.768	0.000	2.345	5.105	3.118	1.025	0.044	2.885	3.439	3.960	4.565	5.677	4.710	3.724	3.779
4	1.865	1.846	2.345	0.000	3.623	1.142	1.618	2.387	1.932	2.835	5.882	6.256	4.915	3.843	3.970	4.912
5	2.573	3.390	5.105	3.623	0.000	4.323	4.084	5.144	2.224	2.001	6.813	6.672	1.931	1.306	3.185	4.875
6	2.977	2.980	3.118	1.142	4.323	0.000	2.632	3.155	2.994	3.896	6.901	7.332	5.842	4.783	5.099	6.043
7	1.549	0.831	1.025	1.618	4.084	2.632	0.000	1.066	1.871	2.498	4.278	4.706	4.761	3.756	3.055	3.544
8	2.588	1.803	0.044	2.387	5.144	3.155	1.066	0.000	2.924	3.472	3.936	4.548	5.707	4.743	3.743	3.778
9	0.359	1.175	2.885	1.932	2.224	2.994	1.871	2.924	0.000	0.905	5.079	5.180	3.053	1.992	2.207	3.536
10	1.035	1.679	3.439	2.835	2.001	3.896	2.498	3.472	0.905	0.000	4.843	4.785	2.265	1.272	1.469	3.029
11	4.775	4.201	3.960	5.882	6.813	6.901	4.278	3.936	5.079	4.843	0.000	0.933	6.143	5.719	3.744	2.145
12	4.917	4.469	4.565	6.256	6.672	7.332	4.706	4.548	5.180	4.785	0.933	0.000	5.754	5.485	3.499	1.802
13	3.276	3.936	5.677	4.915	1.931	5.842	4.761	5.707	3.053	2.265	6.143	5.754	0.000	1.072	2.459	4.011
14	2.237	2.946	4.710	3.843	1.306	4.783	3.756	4.743	1.992	1.272	5.719	5.485	1.072	0.000	1.992	3.684
15	2.130	2.295	3.724	3.970	3.185	5.099	3.055	3.743	2.207	1.469	3.744	3.499	2.459	1.992	0.000	1.697
16	3.324	3.065	3.779	4.912	4.875	6.043	3.544	3.778	3.536	3.029	2.145	1.802	4.011	3.684	1.697	0.000



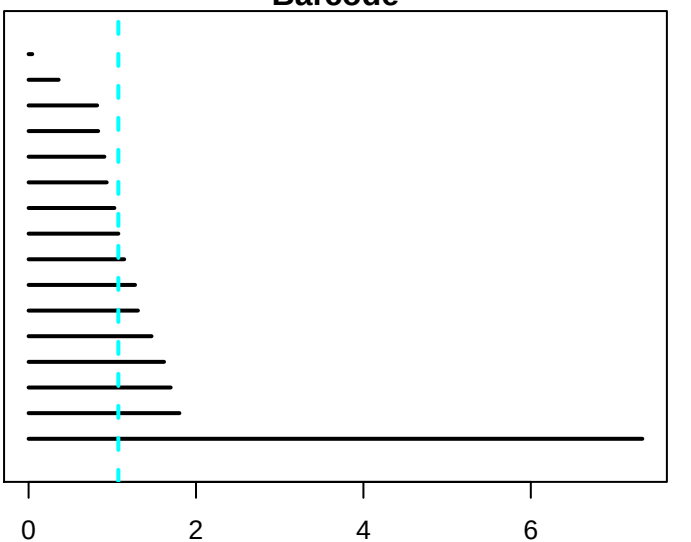
This is the 'Frame' at Euclidean distance = 1.07



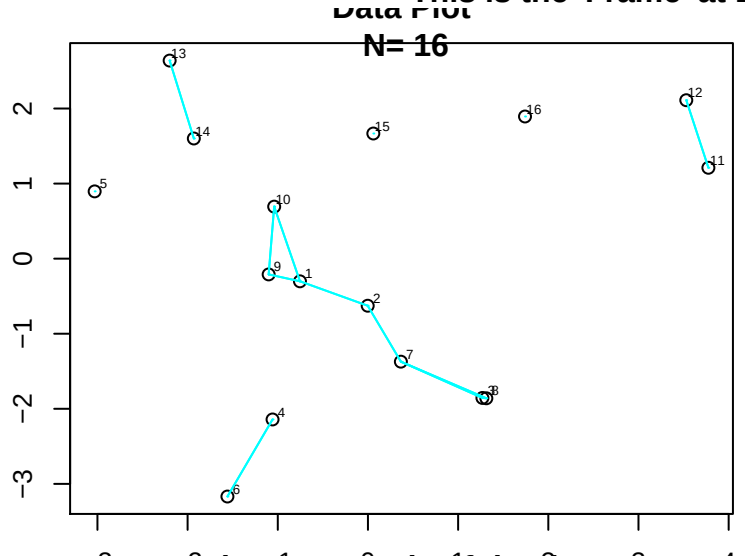


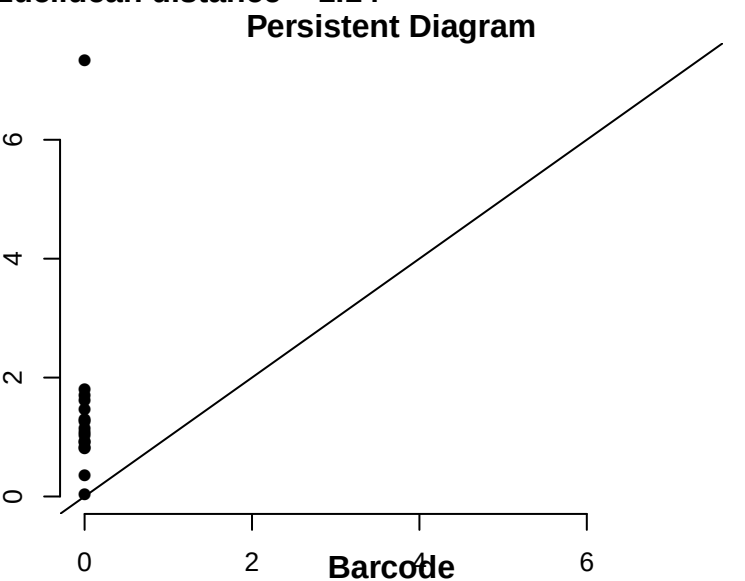
Distance Matrix of the data

0.000	0.819	2.551	1.865	2.573	2.977	1.549	2.588	0.359	1.035	4.775	4.917	3.276	2.237	2.130	3.324
0.819	0.000	1.768	1.846	3.390	2.980	0.831	1.803	1.175	1.679	4.201	4.469	3.936	2.946	2.295	3.065
2.551	1.768	0.000	2.345	5.105	3.118	1.025	0.044	2.885	3.439	3.960	4.565	5.677	4.710	3.724	3.779
1.865	1.846	2.345	0.000	3.623	1.142	1.618	2.387	1.932	2.835	5.882	6.256	4.915	3.843	3.970	4.912
2.573	3.390	5.105	3.623	0.000	4.323	4.084	5.144	2.224	2.001	6.813	6.672	1.931	1.306	3.185	4.875
2.977	2.980	3.118	1.142	4.323	0.000	2.632	3.155	2.994	3.896	6.901	7.332	5.842	4.783	5.099	6.043
1.549	0.831	1.025	1.618	4.084	2.632	0.000	1.066	1.871	2.498	4.278	4.706	4.761	3.756	3.055	3.544
2.588	1.803	0.044	2.387	5.144	3.155	1.066	0.000	2.924	3.472	3.936	4.548	5.707	4.743	3.743	3.778
0.359	1.175	2.885	1.932	2.224	2.994	1.871	2.924	0.000	0.905	5.079	5.180	3.053	1.992	2.207	3.536
1.035	1.679	3.439	2.835	2.001	3.896	2.498	3.472	0.905	0.000	4.843	4.785	2.265	1.272	1.469	3.029
4.775	4.201	3.960	5.882	6.813	6.901	4.278	3.936	5.079	4.843	0.000	0.933	6.143	5.719	3.744	2.145
4.917	4.469	4.565	6.256	6.672	7.332	4.706	4.548	5.180	4.785	0.933	0.000	5.754	5.485	3.499	1.802
3.276	3.936	5.677	4.915	1.931	5.842	4.761	5.707	3.053	2.265	6.143	5.754	0.000	1.072	2.459	4.011
2.237	2.946	4.710	3.843	1.306	4.783	3.756	4.743	1.992	1.272	5.719	5.485	1.072	0.000	1.992	3.684
2.130	2.295	3.724	3.970	3.185	5.099	3.055	3.743	2.207	1.469	3.744	3.499	2.459	1.992	0.000	1.697
3.324	3.065	3.779	4.912	4.875	6.043	3.544	3.778	3.536	3.029	2.145	1.802	4.011	3.684	1.697	0.000



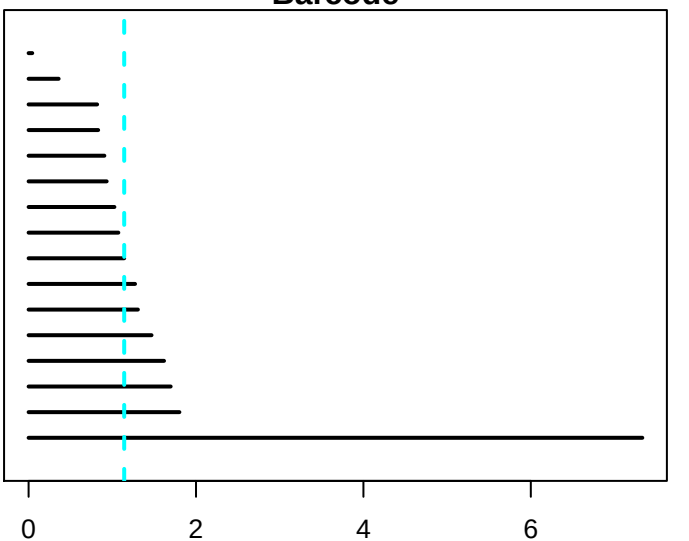
This is the 'Frame' at Euclidean distance = 1.14

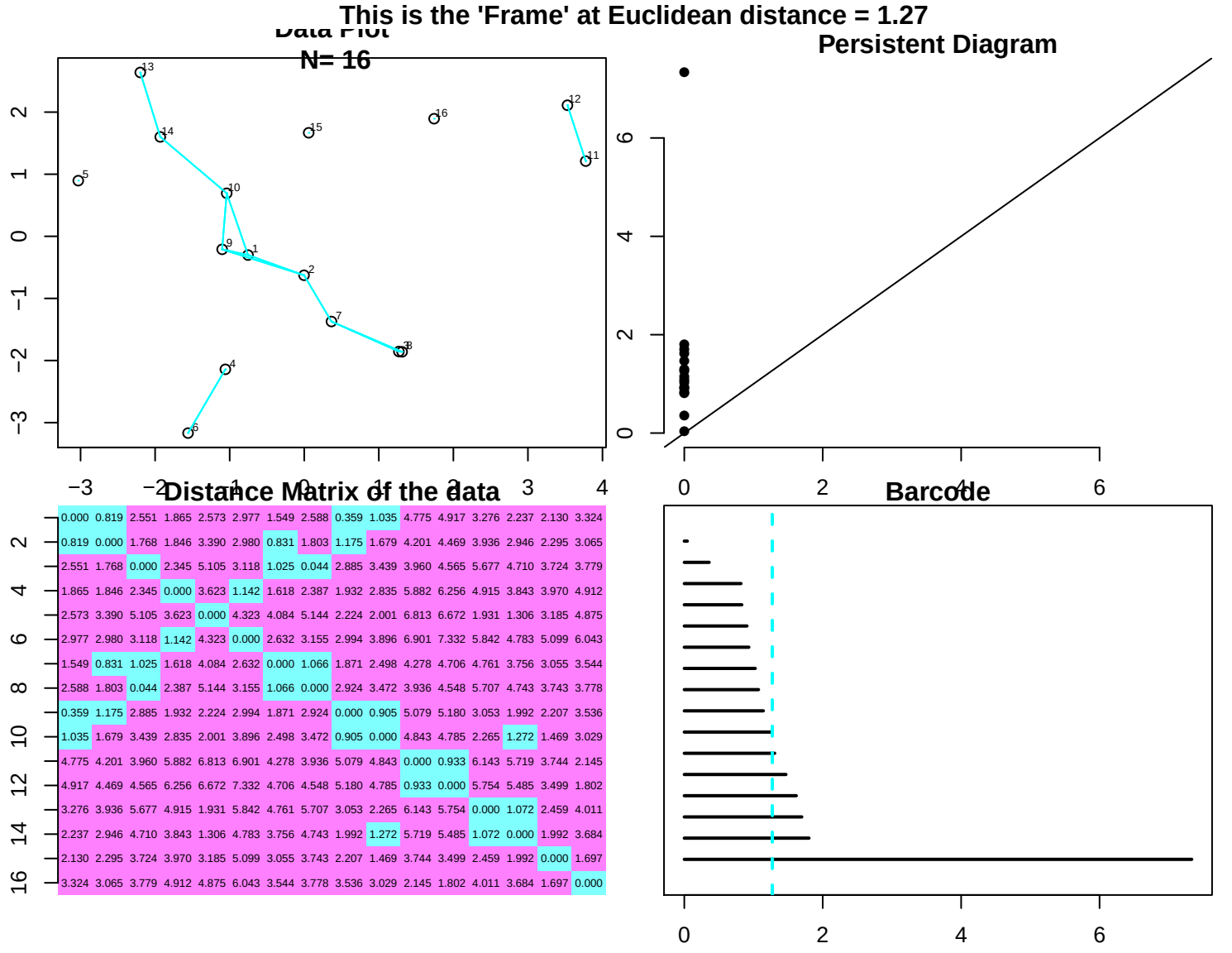


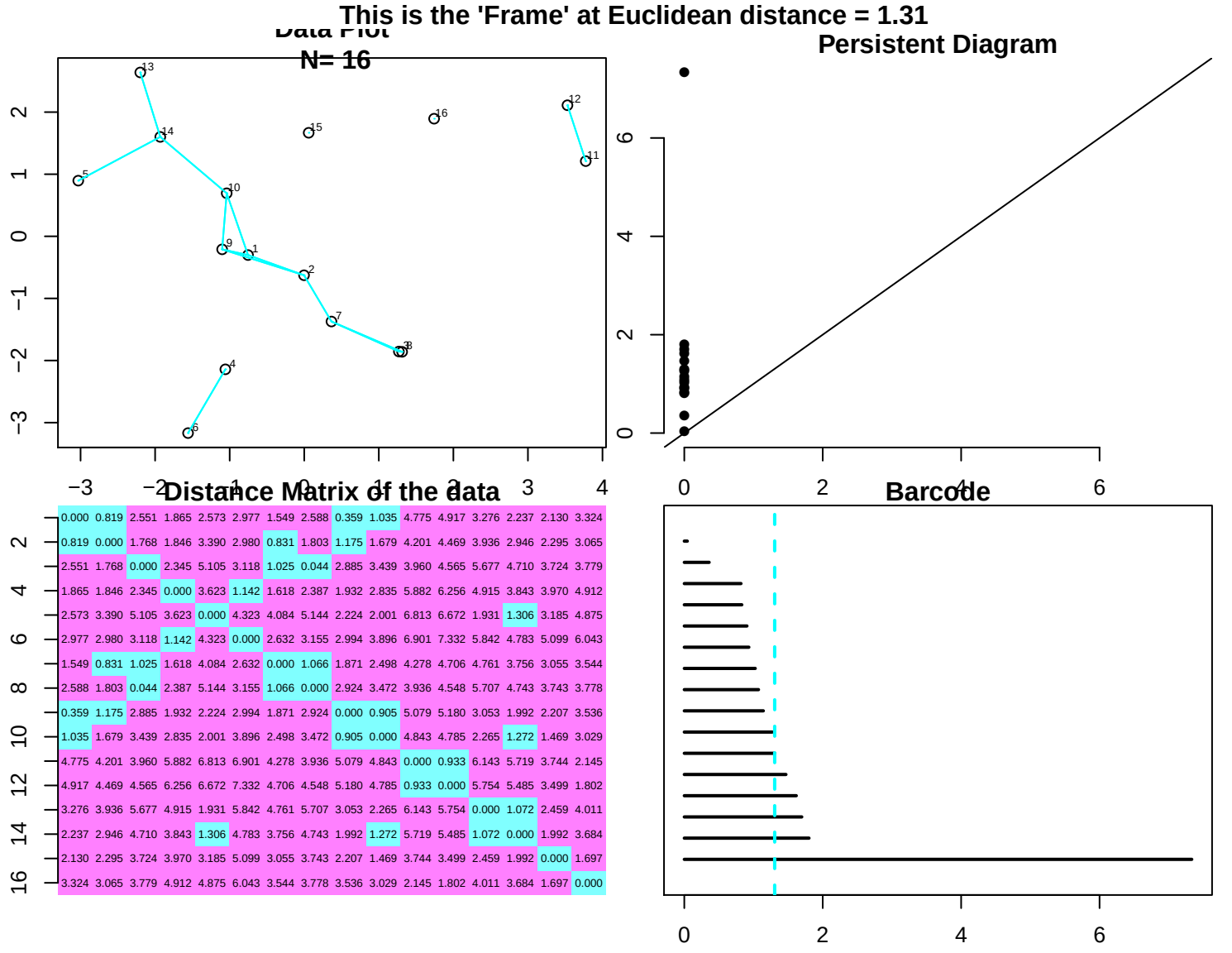


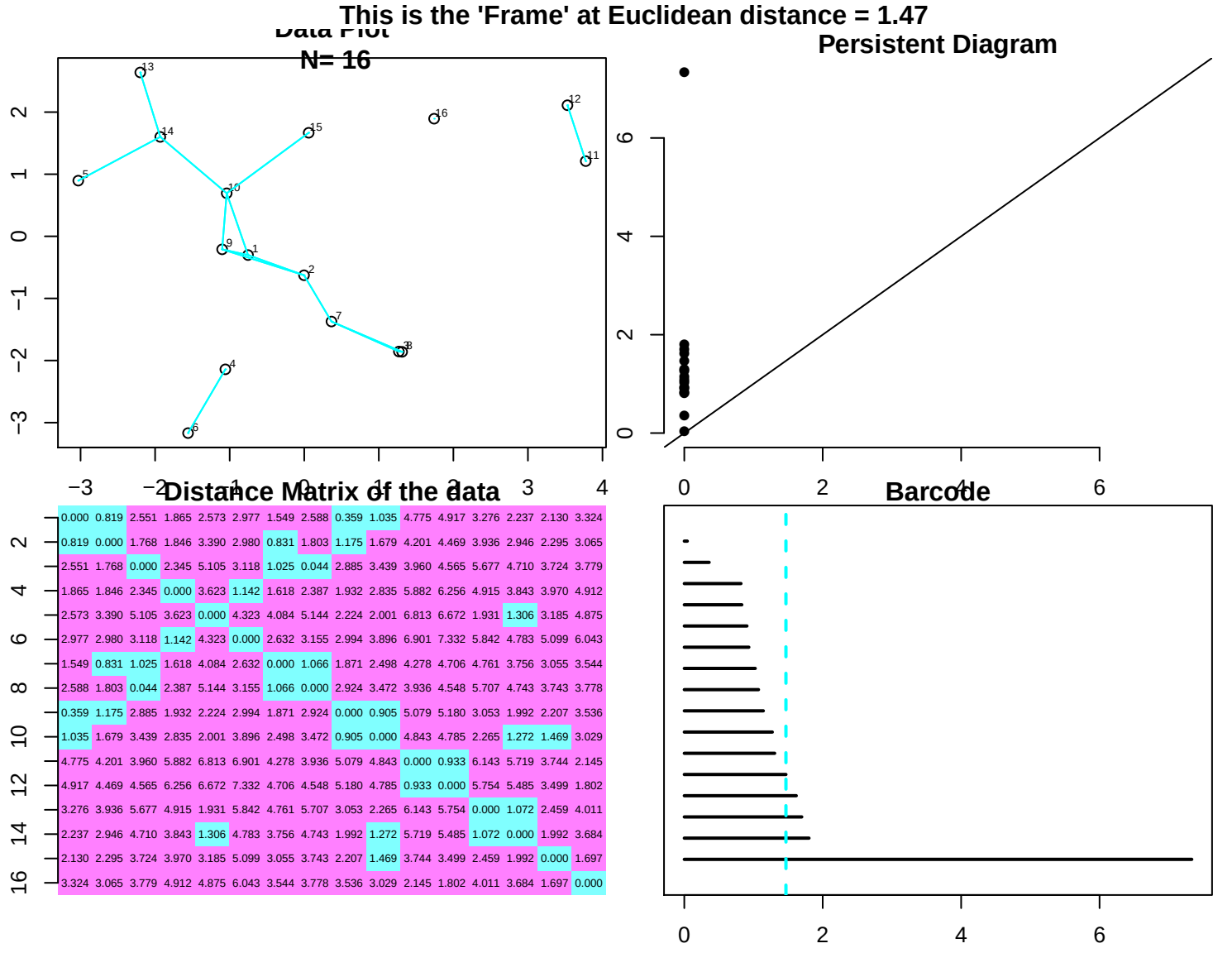
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.000	0.819	2.551	1.865	2.573	2.977	1.549	2.588	0.359	1.035	4.775	4.917	3.276	2.237	2.130	3.324
2	0.819	0.000	1.768	1.846	3.390	2.980	0.831	1.803	1.175	1.679	4.201	4.469	3.936	2.946	2.295	3.065
3	2.551	1.768	0.000	2.345	5.105	3.118	1.025	0.044	2.885	3.439	3.960	4.565	5.677	4.710	3.724	3.779
4	1.865	1.846	2.345	0.000	3.623	1.142	1.618	2.387	1.932	2.835	5.882	6.256	4.915	3.843	3.970	4.912
5	2.573	3.390	5.105	3.623	0.000	4.323	4.084	5.144	2.224	2.001	6.813	6.672	1.931	1.306	3.185	4.875
6	2.977	2.980	3.118	1.142	4.323	0.000	2.632	3.155	2.994	3.896	6.901	7.332	5.842	4.783	5.099	6.043
7	1.549	0.831	1.025	1.618	4.084	2.632	0.000	1.066	1.871	2.498	4.278	4.706	4.761	3.756	3.055	3.544
8	2.588	1.803	0.044	2.387	5.144	3.155	1.066	0.000	2.924	3.472	3.936	4.548	5.707	4.743	3.743	3.778
9	0.359	1.175	2.885	1.932	2.224	2.994	1.871	2.924	0.000	0.905	5.079	5.180	3.053	1.992	2.207	3.536
10	1.035	1.679	3.439	2.835	2.001	3.896	2.498	3.472	0.905	0.000	4.843	4.785	2.265	1.272	1.469	3.029
11	4.775	4.201	3.960	5.882	6.813	6.901	4.278	3.936	5.079	4.843	0.000	0.933	6.143	5.719	3.744	2.145
12	4.917	4.469	4.565	6.256	6.672	7.332	4.706	4.548	5.180	4.785	0.933	0.000	5.754	5.485	3.499	1.802
13	3.276	3.936	5.677	4.915	1.931	5.842	4.761	5.707	3.053	2.265	6.143	5.754	0.000	1.072	2.459	4.011
14	2.237	2.946	4.710	3.843	1.306	4.783	3.756	4.743	1.992	1.272	5.719	5.485	1.072	0.000	1.992	3.684
15	2.130	2.295	3.724	3.970	3.185	5.099	3.055	3.743	2.207	1.469	3.744	3.499	2.459	1.992	0.000	1.697
16	3.324	3.065	3.779	4.912	4.875	6.043	3.544	3.778	3.536	3.029	2.145	1.802	4.011	3.684	1.697	0.000

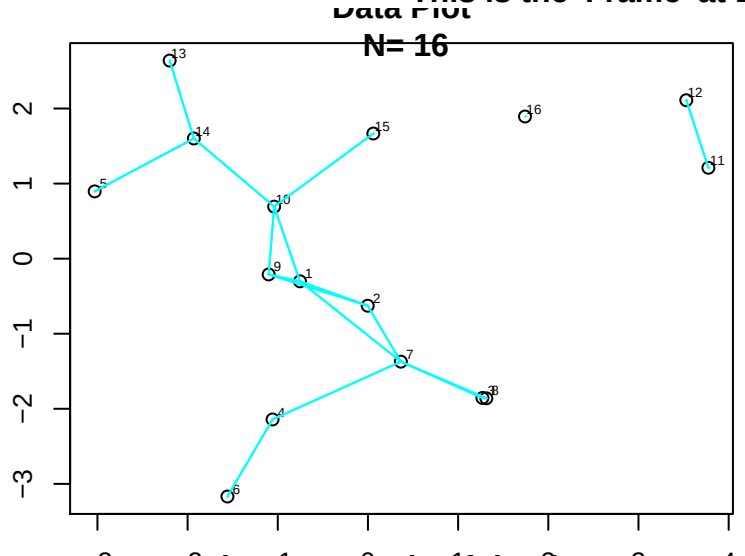


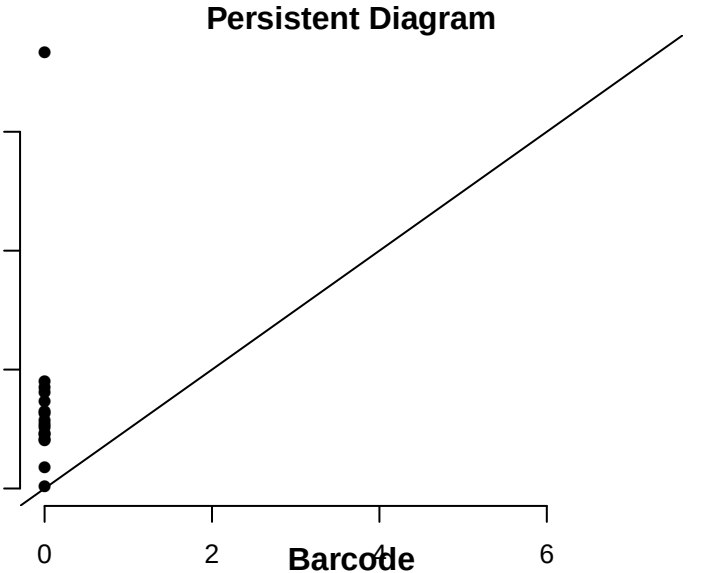

This is the 'Frame' at Euclidean distance = 1.27
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode
0.000 0.819 2.551 1.865 2.573 2.977 1.549 2.588 0.359 1.035 4.775 4.917 3.276 2.237 2.130 3.324
0.819 0.000 1.768 1.846 3.390 2.980 0.831 1.803 1.175 1.679 4.201 4.469 3.936 2.946 2.295 3.065
2.551 1.768 0.000 2.345 5.105 3.118 1.025 0.044 2.885 3.439 3.960 4.565 5.677 4.710 3.724 3.779
1.865 1.846 2.345 0.000 3.623 1.142 1.618 2.387 1.932 2.835 5.882 6.256 4.915 3.843 3.970 4.912
2.573 3.390 5.105 3.623 0.000 4.323 4.084 5.144 2.224 2.001 6.813 6.672 1.931 1.306 3.185 4.875
2.977 2.980 3.118 1.142 4.323 0.000 2.632 3.155 2.994 3.896 6.901 7.332 5.842 4.783 5.099 6.043
1.549 0.831 1.025 1.618 4.084 2.632 0.000 1.066 1.871 2.498 4.278 4.706 4.761 3.756 3.055 3.544
2.588 1.803 0.044 2.387 5.144 3.155 1.066 0.000 2.924 3.472 3.936 4.548 5.707 4.743 3.743 3.778
0.359 1.175 2.885 1.932 2.224 2.994 1.871 2.924 0.000 0.905 5.079 5.180 3.053 1.992 2.207 3.536
1.035 1.679 3.439 2.835 2.001 3.896 2.498 3.472 0.905 0.000 4.843 4.785 2.265 1.272 1.469 3.029
4.775 4.201 3.960 5.882 6.813 6.901 4.278 3.936 5.079 4.843 0.000 0.933 6.143 5.719 3.744 2.145
4.917 4.469 4.565 6.256 6.672 7.332 4.706 4.548 5.180 4.785 0.933 0.000 5.754 5.485 3.499 1.802
3.276 3.936 5.677 4.915 1.931 5.842 4.761 5.707 3.053 2.265 6.143 5.754 0.000 1.072 2.459 4.011
2.237 2.946 4.710 3.843 1.306 4.783 3.756 4.743 1.992 1.272 5.719 5.485 1.072 0.000 1.992 3.684
2.130 2.295 3.724 3.970 3.185 5.099 3.055 3.743 2.207 1.469 3.744 3.499 2.459 1.992 0.000 1.697
3.324 3.065 3.779 4.912 4.875 6.043 3.544 3.778 3.536 3.029 2.145 1.802 4.011 3.684 1.697 0.000


This is the 'Frame' at Euclidean distance = 1.31
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode


This is the 'Frame' at Euclidean distance = 1.47
Data Plot
N= 16
Persistent Diagram
Distance Matrix of the data
Barcode
0.000 0.819 2.551 1.865 2.573 2.977 1.549 2.588 0.359 1.035 4.775 4.917 3.276 2.237 2.130 3.324
0.819 0.000 1.768 1.846 3.390 2.980 0.831 1.803 1.175 1.679 4.201 4.469 3.936 2.946 2.295 3.065
2.551 1.768 0.000 2.345 5.105 3.118 1.025 0.044 2.885 3.439 3.960 4.565 5.677 4.710 3.724 3.779
1.865 1.846 2.345 0.000 3.623 1.142 1.618 2.387 1.932 2.835 5.882 6.256 4.915 3.843 3.970 4.912
2.573 3.390 5.105 3.623 0.000 4.323 4.084 5.144 2.224 2.001 6.813 6.672 1.931 1.306 3.185 4.875
2.977 2.980 3.118 1.142 4.323 0.000 2.632 3.155 2.994 3.896 6.901 7.332 5.842 4.783 5.099 6.043
1.549 0.831 1.025 1.618 4.084 2.632 0.000 1.066 1.871 2.498 4.278 4.706 4.761 3.756 3.055 3.544
2.588 1.803 0.044 2.387 5.144 3.155 1.066 0.000 2.924 3.472 3.936 4.548 5.707 4.743 3.743 3.778
0.359 1.175 2.885 1.932 2.224 2.994 1.871 2.924 0.000 0.905 5.079 5.180 3.053 1.992 2.207 3.536
1.035 1.679 3.439 2.835 2.001 3.896 2.498 3.472 0.905 0.000 4.843 4.785 2.265 1.272 1.469 3.029
4.775 4.201 3.960 5.882 6.813 6.901 4.278 3.936 5.079 4.843 0.000 0.933 6.143 5.719 3.744 2.145
4.917 4.469 4.565 6.256 6.672 7.332 4.706 4.548 5.180 4.785 0.933 0.000 5.754 5.485 3.499 1.802
3.276 3.936 5.677 4.915 1.931 5.842 4.761 5.707 3.053 2.265 6.143 5.754 0.000 1.072 2.459 4.011
2.237 2.946 4.710 3.843 1.306 4.783 3.756 4.743 1.992 1.272 5.719 5.485 1.072 0.000 1.992 3.684
2.130 2.295 3.724 3.970 3.185 5.099 3.055 3.743 2.207 1.469 3.744 3.499 2.459 1.992 0.000 1.697
3.324 3.065 3.779 4.912 4.875 6.043 3.544 3.778 3.536 3.029 2.145 1.802 4.011 3.684 1.697 0.000

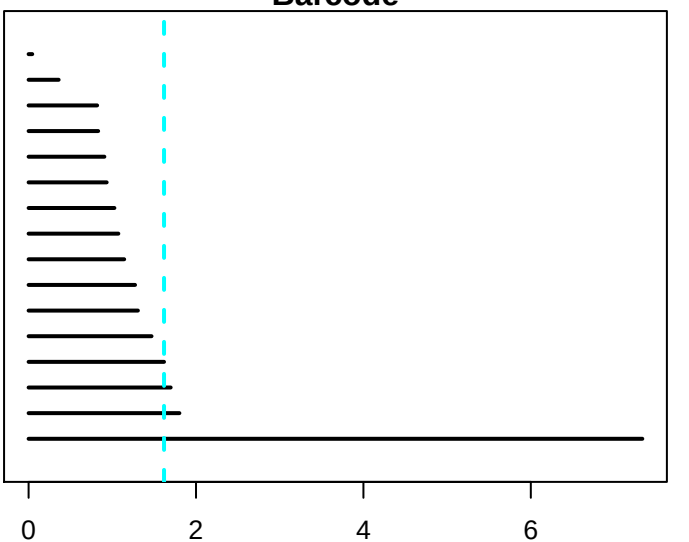
This is the 'Frame' at Euclidean distance = 1.62



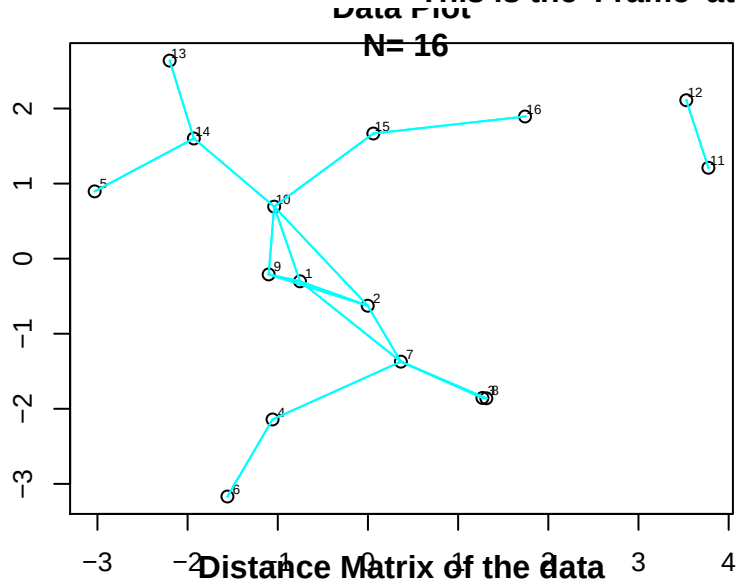


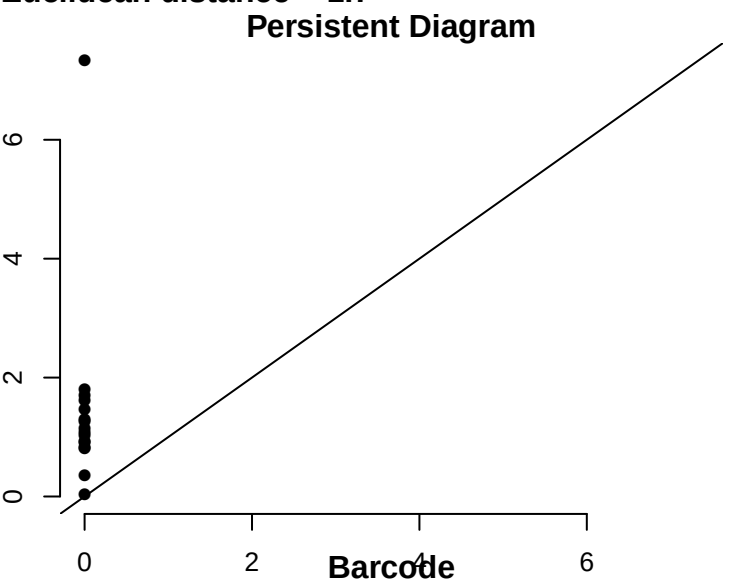
Distance Matrix of the data

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.000	0.819	2.551	1.865	2.573	2.977	1.549	2.588	0.359	1.035	4.775	4.917	3.276	2.237	2.130	3.324
2	0.819	0.000	1.768	1.846	3.390	2.980	0.831	1.803	1.175	1.679	4.201	4.469	3.936	2.946	2.295	3.065
3	2.551	1.768	0.000	2.345	5.105	3.118	1.025	0.044	2.885	3.439	3.960	4.565	5.677	4.710	3.724	3.779
4	1.865	1.846	2.345	0.000	3.623	1.142	1.618	2.387	1.932	2.835	5.882	6.256	4.915	3.843	3.970	4.912
5	2.573	3.390	5.105	3.623	0.000	4.323	4.084	5.144	2.224	2.001	6.813	6.672	1.931	1.306	3.185	4.875
6	2.977	2.980	3.118	1.142	4.323	0.000	2.632	3.155	2.994	3.896	6.901	7.332	5.842	4.783	5.099	6.043
7	1.549	0.831	1.025	1.618	4.084	2.632	0.000	1.066	1.871	2.498	4.278	4.706	4.761	3.756	3.055	3.544
8	2.588	1.803	0.044	2.387	5.144	3.155	1.066	0.000	2.924	3.472	3.936	4.548	5.707	4.743	3.743	3.778
9	0.359	1.175	2.885	1.932	2.224	2.994	1.871	2.924	0.000	0.905	5.079	5.180	3.053	1.992	2.207	3.536
10	1.035	1.679	3.439	2.835	2.001	3.896	2.498	3.472	0.905	0.000	4.843	4.785	2.265	1.272	1.469	3.029
11	4.775	4.201	3.960	5.882	6.813	6.901	4.278	3.936	5.079	4.843	0.000	0.933	6.143	5.719	3.744	2.145
12	4.917	4.469	4.565	6.256	6.672	7.332	4.706	4.548	5.180	4.785	0.933	0.000	5.754	5.485	3.499	1.802
13	3.276	3.936	5.677	4.915	1.931	5.842	4.761	5.707	3.053	2.265	6.143	5.754	0.000	1.072	2.459	4.011
14	2.237	2.946	4.710	3.843	1.306	4.783	3.756	4.743	1.992	1.272	5.719	5.485	1.072	0.000	1.992	3.684
15	2.130	2.295	3.724	3.970	3.185	5.099	3.055	3.743	2.207	1.469	3.744	3.499	2.459	1.992	0.000	1.697
16	3.324	3.065	3.779	4.912	4.875	6.043	3.544	3.778	3.536	3.029	2.145	1.802	4.011	3.684	1.697	0.000



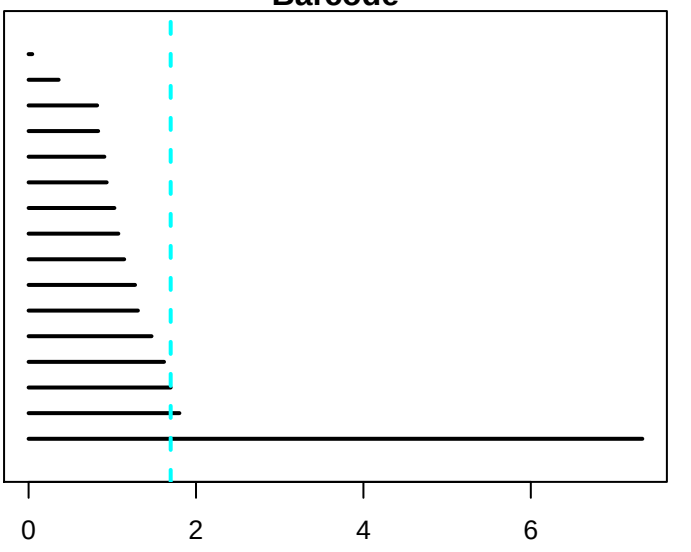
This is the 'Frame' at Euclidean distance = 1.7



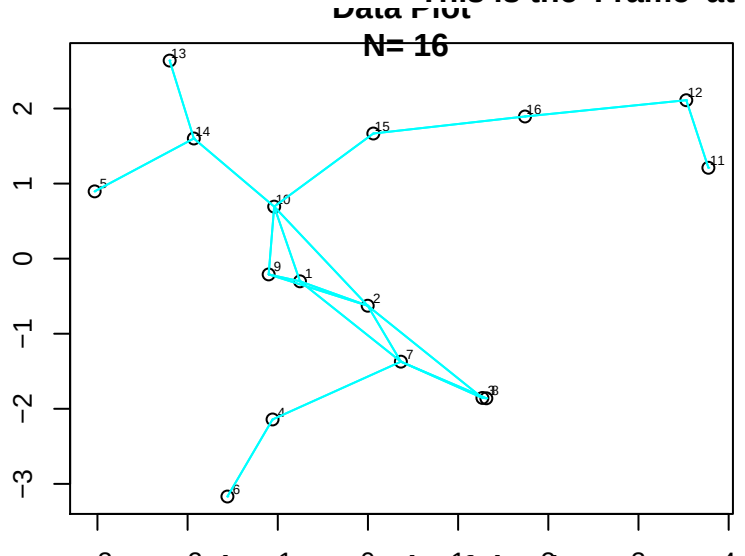


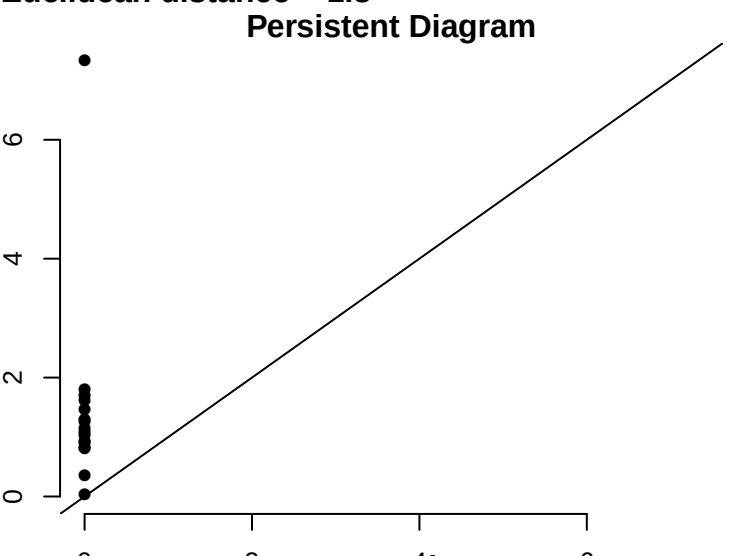
Distance Matrix of the data

0.000	0.819	2.551	1.865	2.573	2.977	1.549	2.588	0.359	1.035	4.775	4.917	3.276	2.237	2.130	3.324
0.819	0.000	1.768	1.846	3.390	2.980	0.831	1.803	1.175	1.679	4.201	4.469	3.936	2.946	2.295	3.065
2.551	1.768	0.000	2.345	5.105	3.118	1.025	0.044	2.885	3.439	3.960	4.565	5.677	4.710	3.724	3.779
1.865	1.846	2.345	0.000	3.623	1.142	1.618	2.387	1.932	2.835	5.882	6.256	4.915	3.843	3.970	4.912
2.573	3.390	5.105	3.623	0.000	4.323	4.084	5.144	2.224	2.001	6.813	6.672	1.931	1.306	3.185	4.875
2.977	2.980	3.118	1.142	4.323	0.000	2.632	3.155	2.994	3.896	6.901	7.332	5.842	4.783	5.099	6.043
1.549	0.831	1.025	1.618	4.084	2.632	0.000	1.066	1.871	2.498	4.278	4.706	4.761	3.756	3.055	3.544
2.588	1.803	0.044	2.387	5.144	3.155	1.066	0.000	2.924	3.472	3.936	4.548	5.707	4.743	3.743	3.778
0.359	1.175	2.885	1.932	2.224	2.994	1.871	2.924	0.000	0.905	5.079	5.180	3.053	1.992	2.207	3.536
1.035	1.679	3.439	2.835	2.001	3.896	2.498	3.472	0.905	0.000	4.843	4.785	2.265	1.272	1.469	3.029
4.775	4.201	3.960	5.882	6.813	6.901	4.278	3.936	5.079	4.843	0.000	0.933	6.143	5.719	3.744	2.145
4.917	4.469	4.565	6.256	6.672	7.332	4.706	4.548	5.180	4.785	0.933	0.000	5.754	5.485	3.499	1.802
3.276	3.936	5.677	4.915	1.931	5.842	4.761	5.707	3.053	2.265	6.143	5.754	0.000	1.072	2.459	4.011
2.237	2.946	4.710	3.843	1.306	4.783	3.756	4.743	1.992	1.272	5.719	5.485	1.072	0.000	1.992	3.684
2.130	2.295	3.724	3.970	3.185	5.099	3.055	3.743	2.207	1.469	3.744	3.499	2.459	1.992	0.000	1.697
3.324	3.065	3.779	4.912	4.875	6.043	3.544	3.778	3.536	3.029	2.145	1.802	4.011	3.684	1.697	0.000



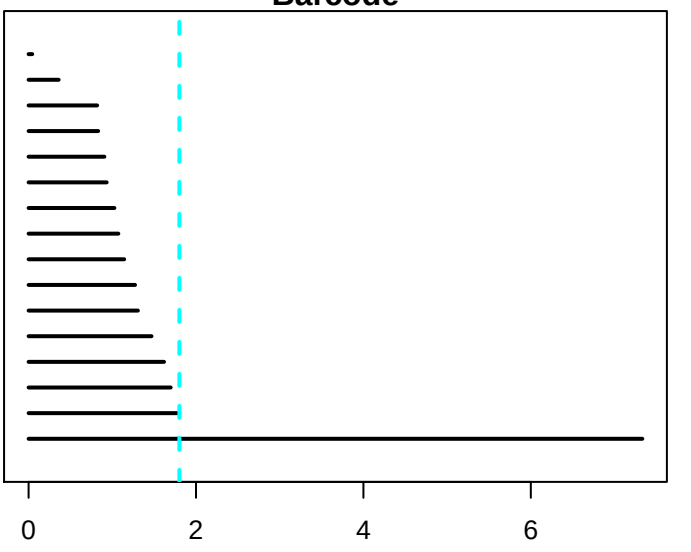
This is the 'Frame' at Euclidean distance = 1.8



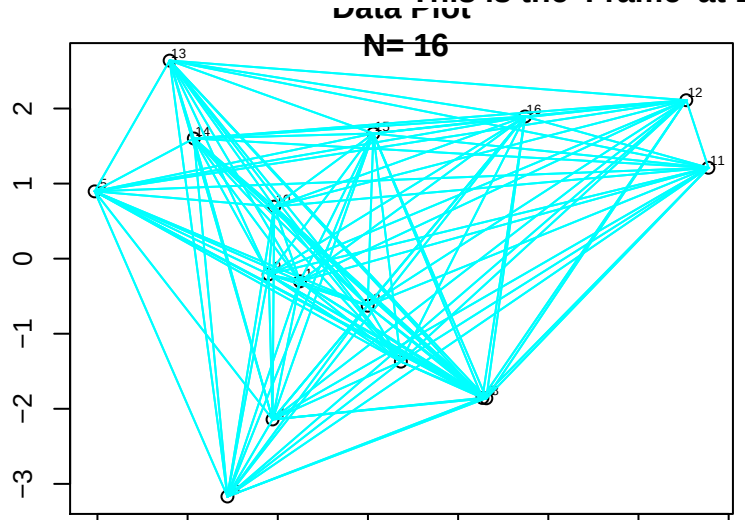


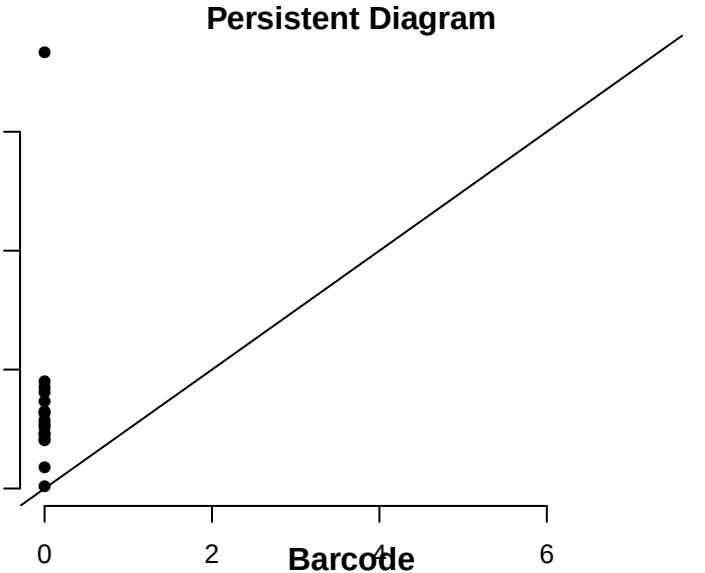
Distance Matrix of the data

0.000	0.819	2.551	1.865	2.573	2.977	1.549	2.588	0.359	1.035	4.775	4.917	3.276	2.237	2.130	3.324
0.819	0.000	1.768	1.846	3.390	2.980	0.831	1.803	1.175	1.679	4.201	4.469	3.936	2.946	2.295	3.065
2.551	1.768	0.000	2.345	5.105	3.118	1.025	0.044	2.885	3.439	3.960	4.565	5.677	4.710	3.724	3.779
1.865	1.846	2.345	0.000	3.623	1.142	1.618	2.387	1.932	2.835	5.882	6.256	4.915	3.843	3.970	4.912
2.573	3.390	5.105	3.623	0.000	4.323	4.084	5.144	2.224	2.001	6.813	6.672	1.931	1.306	3.185	4.875
2.977	2.980	3.118	1.142	4.323	0.000	2.632	3.155	2.994	3.896	6.901	7.332	5.842	4.783	5.099	6.043
1.549	0.831	1.025	1.618	4.084	2.632	0.000	1.066	1.871	2.498	4.278	4.706	4.761	3.756	3.055	3.544
2.588	1.803	0.044	2.387	5.144	3.155	1.066	0.000	2.924	3.472	3.936	4.548	5.707	4.743	3.743	3.778
0.359	1.175	2.885	1.932	2.224	2.994	1.871	2.924	0.000	0.905	5.079	5.180	3.053	1.992	2.207	3.536
1.035	1.679	3.439	2.835	2.001	3.896	2.498	3.472	0.905	0.000	4.843	4.785	2.265	1.272	1.469	3.029
4.775	4.201	3.960	5.882	6.813	6.901	4.278	3.936	5.079	4.843	0.000	0.933	6.143	5.719	3.744	2.145
4.917	4.469	4.565	6.256	6.672	7.332	4.706	4.548	5.180	4.785	0.933	0.000	5.754	5.485	3.499	1.802
3.276	3.936	5.677	4.915	1.931	5.842	4.761	5.707	3.053	2.265	6.143	5.754	0.000	1.072	2.459	4.011
2.237	2.946	4.710	3.843	1.306	4.783	3.756	4.743	1.992	1.272	5.719	5.485	1.072	0.000	1.992	3.684
2.130	2.295	3.724	3.970	3.185	5.099	3.055	3.743	2.207	1.469	3.744	3.499	2.459	1.992	0.000	1.697
3.324	3.065	3.779	4.912	4.875	6.043	3.544	3.778	3.536	3.029	2.145	1.802	4.011	3.684	1.697	0.000



This is the 'Frame' at Euclidean distance = 7.33





Distance Matrix of the data

0.000	0.819	2.551	1.865	2.573	2.977	1.549	2.588	0.359	1.035	4.775	4.917	3.276	2.237	2.130	3.324
0.819	0.000	1.768	1.846	3.390	2.980	0.831	1.803	1.175	1.679	4.201	4.469	3.936	2.946	2.295	3.065
2.551	1.768	0.000	2.345	5.105	3.118	1.025	0.044	2.885	3.439	3.960	4.565	5.677	4.710	3.724	3.779
1.865	1.846	2.345	0.000	3.623	1.142	1.618	2.387	1.932	2.835	5.882	6.256	4.915	3.843	3.970	4.912
2.573	3.390	5.105	3.623	0.000	4.323	4.084	5.144	2.224	2.001	6.813	6.672	1.931	1.306	3.185	4.875
2.977	2.980	3.118	1.142	4.323	0.000	2.632	3.155	2.994	3.896	6.901	7.332	5.842	4.783	5.099	6.043
1.549	0.831	1.025	1.618	4.084	2.632	0.000	1.066	1.871	2.498	4.278	4.706	4.761	3.756	3.055	3.544
2.588	1.803	0.044	2.387	5.144	3.155	1.066	0.000	2.924	3.472	3.936	4.548	5.707	4.743	3.743	3.778
0.359	1.175	2.885	1.932	2.224	2.994	1.871	2.924	0.000	0.905	5.079	5.180	3.053	1.992	2.207	3.536
1.035	1.679	3.439	2.835	2.001	3.896	2.498	3.472	0.905	0.000	4.843	4.785	2.265	1.272	1.469	3.029
4.775	4.201	3.960	5.882	6.813	6.901	4.278	3.936	5.079	4.843	0.000	0.933	6.143	5.719	3.744	2.145
4.917	4.469	4.565	6.256	6.672	7.332	4.706	4.548	5.180	4.785	0.933	0.000	5.754	5.485	3.499	1.802
3.276	3.936	5.677	4.915	1.931	5.842	4.761	5.707	3.053	2.265	6.143	5.754	0.000	1.072	2.459	4.011
2.237	2.946	4.710	3.843	1.306	4.783	3.756	4.743	1.992	1.272	5.719	5.485	1.072	0.000	1.992	3.684
2.130	2.295	3.724	3.970	3.185	5.099	3.055	3.743	2.207	1.469	3.744	3.499	2.459	1.992	0.000	1.697
3.324	3.065	3.779	4.912	4.875	6.043	3.544	3.778	3.536	3.029	2.145	1.802	4.011	3.684	1.697	0.000