Table 47: Numerical comparisons for power of the tests for the simple tree order correlation and increasing covariance structure at a = 2 with p = 6 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.047	0.05	0.048	0.049	0.048	0.047	0.05	0.05	0.049	0.049	0.05
(1,1,1,1,1,1)	0.784	0.785	0.639	0.822	0.769	0.863	0.833	0.784	0.639	0.822	0.769	0.867
(0,1,1,1,1,1)	2.272	0.788	0.802	0.791	0.809	0.784	0.84	0.796	0.805	0.793	0.812	0.788
(0,0,1,1,1,1)	3.31	0.769	0.812	0.666	0.795	0.653	0.756	0.773	0.812	0.668	0.798	0.661
(0,0,0,1,1,1)	4.195	0.746	0.805	0.532	0.76	0.603	0.685	0.762	0.805	0.532	0.763	0.61
(0,0,0,0,1,1)	5.349	0.742	0.789	0.439	0.704	0.612	0.664	0.752	0.791	0.44	0.707	0.624
(0,0,0,0,0,1)	7.726	0.736	0.747	0.402	0.63	0.668	0.735	0.75	0.748	0.402	0.629	0.679
Min.		0.736	0.639	0.402	0.63	0.603	0.664	0.75	0.639	0.402	0.629	0.61
Average		0.761	0.766	0.609	0.745	0.697	0.752	0.770	0.767	0.610	0.746	0.705

Table 48: Numerical comparisons for power of the tests for the simple tree order correlation and increasing covariance structure at a = 2 with p = 6 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.053	0.051	0.053	0.052	0.05	0.049	0.052	0.051	0.054	0.053	0.052
(1,1,1,1,1,1)	0.294	0.772	0.599	0.788	0.722	0.829	0.741	0.778	0.6	0.789	**0.722**	**0.831**
(0,1,1,1,1,1)	0.852	0.777	0.757	0.759	0.765	0.75	0.732	0.778	0.757	0.761	0.766	0.751
(0,0,1,1,1,1)	1.242	0.778	0.786	0.675	0.762	0.648	0.651	0.779	0.786	0.677	0.764	0.648
(0,0,0,1,1,1)	1.574	0.762	0.778	0.554	0.721	0.581	0.587	0.758	0.777	0.555	0.723	0.585
(0,0,0,0,1,1)	2.007	0.747	0.75	0.465	0.664	0.587	0.555	0.748	0.749	0.467	0.665	0.589
(0,0,0,0,0,1)	2.898	0.735	0.687	0.413	0.577	0.633	0.623	0.74	0.688	0.415	0.578	0.635
Min.		0.735	0.599	0.413	0.577	0.581	0.555	0.74	0.6	0.415	0.578	0.585
Average		0.762	0.726	0.609	0.702	0.671	0.648	0.764	0.726	0.611	0.703	0.673

Tables 49: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{ij} = -.1$ for $i \neq j$ and increasing covariance structure at a = 2 with p = 6 and n= 10

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.053	0.05	0.051	0.051	0.052	0.052	0.051	0.051	0.051	0.052	0.05
(1,1,1,1,1,1)	1.556	0.912	0.86	0.872	0.873	0.909	0.97	0.871	0.855	0.867	0.868	0.908
(0,1,1,1,1,1)	3.641	0.91	0.872	0.871	0.872	0.906	0.921	0.857	0.868	0.866	0.868	0.906
(0,0,1,1,1,1)	5.719	0.893	0.868	0.87	0.868	0.897	0.914	0.84	0.861	0.859	0.868	0.896
(0,0,0,1,1,1)	8.417	0.869	0.871	0.863	0.871	0.893	0.947	0.827	0.866	0.858	0.866	0.889
(0,0,0,0,1,1)	12.63	0.84	0.868	0.848	0.868	0.881	**0.979**	0.81	0.866	0.846	0.866	0.873
(0,0,0,0,0,1)	21.52	0.806	0.869	0.809	0.867	0.871	**0.997**	0.796	0.864	0.804	0.862	0.863
Min.		**0.806**	**0.86**	**0.809**	**0.867**	**0.871**	**0.914**	**0.796**	**0.855**	**0.804**	0.862	0.863
Average		0.872	0.868	0.856	0.870	0.893	0.955	0.834	0.863	0.850	0.866	0.889

Tables 50: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{ij} = -.1$ for $i \neq j$ and increasing covariance structure at a = 2 with p = 6 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.05	0.049	0.05	0.05	0.051	0.051	0.05	0.049	0.051	0.051	0.051
(1,1,1,1,1,1)	0.7	0.895	0.764	0.824	0.825	0.885	0.761	0.892	0.761	0.823	0.828	0.886
(0,1,1,1,1,1)	1.639	0.899	0.823	0.825	0.825	0.894	0.638	0.897	0.818	0.824	0.825	**0.894**
(0,0,1,1,1,1)	2.574	0.886	0.826	0.826	0.826	0.89	0.639	0.884	0.819	0.822	0.825	**0.892**
(0,0,0,1,1,1)	3.789	0.873	0.823	0.822	0.823	0.884	0.688	0.872	0.82	0.823	0.825	0.884
(0,0,0,0,1,1)	5.686	0.853	0.827	0.823	0.826	0.875	0.781	0.85	0.82	0.825	0.826	0.877
(0,0,0,0,0,1)	9.685	0.828	0.835	0.81	0.823	0.87	**0.902**	0.824	0.83	0.809	0.825	0.87
Min.		**0.828**	**0.764**	**0.81**	**0.823**	**0.87**	0.638	**0.824**	**0.761**	**0.809**	0.825	0.87
Average		0.872	0.816	0.822	0.825	0.883	0.735	0.870	0.811	0.821	0.826	0.884

Tables 51: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{p \times p}$, $r_{ij} = -.1$ for $i \neq j$ and increasing covariance structure at $a = 2$ with $p = 6$ and $n = 100$

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.052	0.048	0.05	0.05	0.052	0.051	0.051	0.05	0.05	0.051	0.053
(1,1,1,1,1,1)	0.263	0.886	0.714	0.802	0.804	0.861	0.652	0.888	0.716	0.803	0.806	0.863
(0,1,1,1,1,1)	0.615	0.903	0.805	0.811	0.811	0.888	0.533	0.895	0.806	0.813	0.811	0.886
(0,0,1,1,1,1)	0.966	0.894	0.809	0.81	0.81	0.883	0.54	0.893	0.81	0.812	0.81	0.882
(0,0,0,1,1,1)	1.421	0.881	0.808	0.808	0.808	0.878	0.578	0.875	0.809	0.807	0.81	0.879
(0,0,0,0,1,1)	2.133	0.862	0.805	0.803	0.802	0.867	0.671	0.857	0.806	0.806	0.803	0.868
(0,0,0,0,0,1)	3.633	0.829	0.798	0.784	0.781	0.838	0.819	0.831	0.801	0.786	0.782	0.838
Min.		0.829	**0.714**	**0.784**	0.781	0.838	0.533	0.831	**0.716**	**0.786**	0.782	0.838
Average		0.876	0.790	0.803	0.803	0.869	0.632	0.873	0.791	0.805	0.804	0.869

Table 52: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{p \times p}$, $r_{12} = r_{14} = r_{25} = r_{26} = r_{35} = r_{36} = r_{45} = r_{46} = -.4$ and the rest of r_{ij} for $i \neq j$ $r_{ij} = .4$ and increasing covariance structure at $a = 2$ with $p = 6$ and $n = 10$

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.053	0.049	0.05	0.051	0.053	0.048	0.051	0.05	0.05	0.051	0.052
(1,1,1,1,1,1)	0.426	0.809	0.633	0.87	0.758	0.892	0.167	0.807	0.628	0.864	0.752	**0.889**
(0,1,1,1,1,1)	2.829	0.861	0.866	0.692	0.866	0.618	0.684	0.827	0.862	0.688	0.862	0.613
(0,0,1,1,1,1)	1.708	0.813	0.815	0.177	0.78	0.229	0.162	0.805	0.812	0.176	0.778	0.22
(0,0,0,1,1,1)	7.222	0.831	0.866	0.773	0.865	0.781	0.876	0.8	0.864	0.77	0.863	0.775
(0,0,0,0,1,1)	4.95	0.81	0.862	0.258	0.793	0.263	0.292	0.798	0.859	0.256	0.791	0.254
(0,0,0,0,0,1)	10.05	0.772	0.86	0.275	0.772	0.361	0.548	0.767	0.854	0.273	0.767	0.358
Min.		**0.772**	0.633	0.177	0.772	0.263	0.162	0.767	0.812	0.176	0.752	0.254
Average		0.816	0.817	0.508	0.806	0.524	0.455	0.801	0.813	0.505	0.802	0.518

Table 53: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{14} = r_{25} = r_{26} = r_{35} = r_{36} = r_{45} = r_{46} = -.4$ and the rest of r_{ij} for $i \neq j$ $r_{ij} = .4$ and increasing covariance structure at a= 2 with p = 6 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.047	0.05	0.049	0.047	0.047	0.051	0.05	0.05	0.047	0.048	0.046
(1,1,1,1,1,1)	0.192	0.803	0.531	0.803	0.63	0.847	0.117	0.8	0.531	0.804	0.632	0.845
(0,1,1,1,1,1)	1.273	0.852	0.808	0.719	0.811	0.595	0.402	0.857	0.808	0.721	0.812	0.595
(0,0,1,1,1,1)	0.769	0.813	0.699	0.248	0.66	0.215	0.12	0.813	0.701	0.249	0.662	0.216
(0,0,0,1,1,1)	3.251	0.834	0.825	0.79	0.813	0.78	0.563	0.832	0.823	0.788	0.814	0.779
(0,0,0,0,1,1)	2.228	0.806	0.769	0.334	0.676	0.252	0.167	0.817	0.768	0.333	0.679	0.254
(0,0,0,0,0,1)	4.524	0.79	0.777	0.344	0.661	0.34	0.286	0.793	0.776	0.342	0.66	0.34
Min.		0.79	0.531	0.248	0.63	0.215	0.117	0.793	0.531	0.249	0.632	0.216
Average		0.816	0.735	0.540	0.709	0.505	0.276	0.819	0.735	0.540	0.710	0.505

Table 54: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{14} = r_{25} = r_{26} = r_{35} = r_{36} = r_{45} = r_{46} = -.4$ and the rest of r_{ij} for $i \neq j$ $r_{ij} = .4$ and increasing covariance structure at a = 2 with p = 6 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.051	0.048	0.051	0.051	0.05	0.048	0.054	0.05	0.051	0.052	0.051
(1,1,1,1,1,1)	0.072	0.802	0.5	0.764	0.583	0.813	0.1	0.807	0.503	0.767	0.585	0.812
(0,1,1,1,1,1)	0.478	**0.846**	0.779	0.715	0.787	0.585	0.329	0.849	0.777	0.715	0.786	0.589
(0,0,1,1,1,1)	0.288	0.812	0.648	0.286	0.614	0.216	0.111	0.809	0.648	0.287	0.616	0.217
(0,0,0,1,1,1)	1.22	0.836	0.807	0.784	0.788	0.769	0.469	0.833	0.807	0.786	0.789	0.772
(0,0,0,0,1,1)	0.836	0.81	0.722	0.367	0.63	0.253	0.145	0.81	0.72	0.367	0.63	0.258
(0,0,0,0,0,1)	1.697	0.79	0.716	0.365	0.605	0.332	0.234	0.799	0.716	0.366	0.605	0.332
Min.		0.79	0.5	0.286	0.583	0.216	0.1	0.799	0.503	0.287	0.585	0.217
Average		0.816	0.695	0.547	0.668	0.495	0.231	0.818	0.695	0.548	0.669	0.497

Table 55: Numerical comparisons for power of the tests for the simple order correlation and V-shaped covariance structure at a =4 with p = 3 and n = 6

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.053	0.051	0.049	0.05	0.049	0.046	0.05	0.047	0.047	0.047	0.048
(1,1,1)	1.374	**0.914**	0.837	0.885	0.885	0.898	0.695	0.823	0.786	0.832	0.832	0.843
(1,0,1)	5.909	**0.9**	0.889	0.887	**0.889**	**0.902**	0.775	0.801	0.836	0.835	0.836	0.851
(0,1,1)	1.507	0.897	0.782	0.888	0.888	0.898	0.751	0.81	0.734	0.833	0.833	0.84
(1,1,0)	1.507	0.894	0.776	0.881	0.881	0.894	0.757	0.81	0.73	0.83	0.83	0.839
(1,0,0)	9.649	0.856	0.88	0.863	0.878	0.883	0.894	0.792	0.83	0.813	0.828	0.83
(0,1,0)	1.671	0.872	0.656	0.883	0.884	0.893	0.819	0.791	0.617	0.832	0.832	0.836
(0,0,1)	9.649	0.864	0.892	0.875	0.89	0.893	0.898	0.805	0.836	0.819	0.834	0.842
Min.		**0.856**	0.656	0.863	0.878	0.883	0.695	**0.791**	**0.617**	**0.813**	**0.828**	**0.83**
Average		0.885	0.816	0.880	0.885	0.894	0.798	0.805	0.767	0.828	0.832	0.840

Table 56: Numerical comparisons for power of the tests for the simple order correlation and V-shaped covariance structure at a =4 with p = 3 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.048	0.049	0.049	0.049	0.051	0.051	0.048	0.05	0.048	0.051	0.052
(1,1,1)	0.432	**0.868**	0.669	0.806	0.806	0.837	0.449	0.874	0.669	0.801	0.806	0.841
(1,0,1)	1.86	**0.874**	0.811	0.812	0.812	0.853	0.511	0.876	0.81	0.81	0.814	0.857
(0,1,1)	0.474	0.859	0.61	0.803	0.802	0.83	0.498	**0.865**	0.61	0.801	0.805	0.832
(1,1,0)	0.474	0.857	0.613	0.807	0.806	0.83	0.5	**0.861**	0.612	0.801	0.806	0.832
(1,0,0)	3.037	0.843	0.81	0.815	0.816	0.842	0.694	0.848	0.807	0.811	0.817	0.843
(0,1,0)	0.526	0.845	0.524	0.801	0.802	0.822	0.564	0.849	0.524	0.8	0.803	0.826
(0,0,1)	3.037	0.841	0.809	0.815	0.816	0.838	0.692	0.844	0.806	0.814	0.816	0.844
Min.		0.841	0.524	**0.801**	**0.802**	**0.822**	0.449	**0.844**	0.524	**0.8**	0.803	**0.826**
Average		0.855	0.692	0.808	0.809	0.836	0.558	0.860	0.691	0.805	0.810	0.839

Table 57: Numerical comparisons for power of the tests for the simple order correlation and V-shaped covariance structure at a =4 with p = 3 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.049	0.051	0.048	0.047	0.048	0.053	0.051	0.051	0.049	0.049	0.048
(1,1,1)	0.176	**0.869**	0.652	0.802	0.804	0.834	0.42	**0.867**	0.652	0.803	0.804	0.832
(1,0,1)	0.756	0.87	0.797	0.801	0.802	0.846	0.476	0.866	0.803	0.802	0.804	0.847
(0,1,1)	0.193	**0.862**	0.595	0.798	0.801	0.826	0.463	**0.866**	0.594	0.799	0.801	0.828
(1,1,0)	0.193	0.861	0.595	0.798	0.8	0.826	0.462	0.864	0.596	0.799	0.8	0.825
(1,0,0)	1.235	0.838	0.784	0.797	0.797	0.824	0.644	0.838	0.785	0.798	0.797	0.824
(0,1,0)	0.214	0.851	0.513	0.792	0.796	0.819	0.53	0.85	0.511	0.792	0.795	0.817
(0,0,1)	1.235	0.841	0.791	0.803	0.803	0.831	0.653	0.842	0.793	0.805	0.804	0.831
Min.		**0.838**	0.513	**0.792**	**0.796**	**0.819**	0.42	**0.838**	0.511	**0.792**	0.795	**0.817**
Average		0.856	0.675	0.799	0.800	0.829	0.521	0.856	0.676	0.800	0.801	0.829

Tables 58: Numerical comparisons for power of the tests for the simple tree order correlation and V-shaped covariance structure at a =4 with p = 3 and n = 6

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.048	0.051	0.05	0.05	0.048	0.048	0.045	0.046	0.046	0.045	0.045
(1,1,1)	2.176	0.834	0.851	0.888	0.886	0.899	0.957	0.76	0.798	0.832	0.831	0.838
(1,0,1)	8.356	0.797	0.887	0.698	0.885	0.748	0.938	0.732	0.838	0.652	0.837	0.65
(0,1,1)	2.027	0.795	0.759	0.883	0.876	0.884	0.926	0.741	0.715	0.831	0.824	0.828
(1,1,0)	2.027	0.802	0.764	0.889	0.882	0.889	0.93	0.742	0.716	0.835	0.829	0.827
(1,0,0)	9.649	0.763	0.878	0.596	0.847	0.78	0.898	0.726	0.832	0.559	0.803	0.698
(0,1,0)	1.93	0.768	0.617	0.881	0.856	0.88	0.901	0.725	0.58	0.828	0.804	0.819
(0,0,1)	9.649	0.774	0.887	0.601	0.855	0.792	0.904	0.735	0.832	0.557	0.802	0.712
Min.		**0.763**	0.617	0.596	**0.847**	**0.748**	**0.898**	0.725	0.58	0.557	0.802	0.65
Average		0.790	0.806	0.777	0.870	0.839	0.922	0.737	0.759	0.728	0.819	0.767

Tables 59: Numerical comparisons for power of the tests for the simple tree order correlation and V-shaped covariance structure at a = 4 with p = 3 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.047	0.049	0.05	0.049	0.05	0.049	0.05	0.049	0.051	0.051	0.052
(1,1,1)	0.685	0.796	0.698	0.814	**0.794**	**0.836**	0.794	0.79	0.697	0.817	**0.795**	**0.838**
(1,0,1)	2.63	0.779	0.812	0.728	0.795	0.686	0.731	0.782	0.812	0.728	0.793	0.691
(0,1,1)	0.638	0.777	0.608	0.804	0.763	0.816	0.738	0.78	0.61	0.804	0.763	0.819
(1,1,0)	0.638	0.777	0.608	0.802	0.759	0.818	0.735	0.782	0.607	0.805	0.762	0.819
(1,0,0)	3.037	0.755	0.764	0.616	0.715	0.707	0.7	0.768	0.768	0.619	0.716	0.707
(0,1,0)	0.607	0.76	0.509	0.788	0.722	0.807	0.685	0.765	0.511	0.79	0.722	0.806
(0,0,1)	3.037	0.761	0.768	0.621	0.719	0.703	0.688	0.768	0.768	0.62	0.719	0.703
Min.		0.755	0.509	0.616	0.715	0.686	0.685	**0.765**	0.511	0.62	0.716	0.691
Average		0.772	0.681	0.739	0.752	0.768	0.724	0.776	0.682	0.740	0.753	0.769

Tables 60: Numerical comparisons for power of the tests for the simple tree order correlation and V-shaped covariance structure at a = 4 with p = 3 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.049	0.05	0.045	0.048	0.048	0.051	0.049	0.049	0.047	0.049	0.049
(1,1,1)	0.279	0.779	0.657	0.786	**0.76**	**0.809**	0.761	0.786	0.657	0.79	0.76	**0.811**
(1,0,1)	1.07	0.781	0.803	0.727	0.781	0.674	0.688	0.78	0.804	0.728	0.782	0.675
(0,1,1)	0.259	0.766	0.577	0.777	0.73	0.792	0.696	0.766	0.577	0.78	0.73	0.793
(1,1,0)	0.259	0.762	0.574	0.774	0.726	0.787	0.695	0.769	0.575	0.776	0.729	0.789
(1,0,0)	1.235	0.752	0.736	0.613	0.682	0.683	0.648	0.76	0.739	0.616	0.683	0.685
(0,1,0)	0.247	0.752	0.489	0.759	0.679	0.779	0.653	0.761	0.49	0.763	0.681	0.781
(0,0,1)	1.235	0.76	0.742	0.614	0.683	0.69	0.649	0.758	0.744	0.615	0.683	0.691
Min.		**0.752**	0.489	0.613	0.679	0.674	0.648	0.758	0.49	0.615	0.681	0.675
Average		0.765	0.654	0.721	0.720	0.745	0.684	0.769	0.655	0.724	0.721	0.746

Tables 61: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, r_{ij} = -.4 for $i \neq j$ and V-shaped covariance structure at a = 4 with p = 3 and n = 6

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.055	0.051	0.05	0.051	0.051	0.048	0.05	0.047	0.048	0.047	0.049
(1,1,1)	1.251	**0.93**	0.864	0.89	0.89	0.902	0.61	0.839	0.816	0.839	0.838	0.85
(1,0,1)	4.422	0.917	0.89	0.888	0.889	0.905	0.552	0.827	0.839	0.837	0.838	0.855
(0,1,1)	1.412	0.913	0.826	0.888	0.888	0.901	0.7	0.828	0.776	0.834	0.834	0.844
(1,1,0)	1.412	0.912	0.826	0.886	0.886	0.896	0.698	0.833	0.776	0.833	0.833	0.841
(1,0,0)	8.073	0.882	0.884	0.879	0.882	0.895	0.781	0.813	0.832	0.826	0.829	0.841
(0,1,0)	1.615	0.886	0.71	0.886	0.887	0.897	0.793	0.811	0.666	0.83	0.831	0.838
(0,0,1)	8.073	0.881	0.892	0.885	0.888	0.899	0.781	0.815	0.836	0.83	0.832	0.85
Min.		0.881	**0.71**	**0.879**	**0.882**	**0.895**	0.552	**0.811**	0.666	**0.826**	**0.829**	**0.838**
Average		0.903	0.842	0.886	0.887	0.899	0.702	0.824	0.792	0.833	0.834	0.846

Tables 62: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, r_{ij} = -.4 for $i \neq j$ and V-shaped covariance structure at a = 4 with p = 3 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0.0)	0	0.05	0.05	0.049	0.049	0.051	0.053	0.049	0.051	0.05	0.052	0.05
(1,1,1)	0.394	0.885	0.71	0.808	0.809	0.84	0.384	0.889	0.71	0.806	0.808	0.838
(1,0,1)	1.392	0.888	0.815	0.817	0.816	0.857	0.346	0.892	0.815	0.814	0.816	0.855
(0,1,1)	0.445	0.873	0.657	0.809	0.811	0.835	0.45	0.881	0.657	0.806	0.811	0.833
(1,1,0)	0.445	0.873	0.654	0.805	0.807	0.834	0.445	0.875	0.655	0.802	0.808	0.833
(1,0,0)	2.541	0.859	0.808	0.811	0.81	0.846	0.537	0.866	0.809	0.812	0.811	0.848
(0,1,0)	0.508	0.858	0.553	0.8	0.805	0.825	0.532	0.86	0.554	0.798	0.806	0.827
(0,0,1)	2.541	0.863	0.814	0.818	0.816	0.85	0.539	0.864	0.814	0.816	0.817	0.849
Min.		0.858	0.553	0.8	0.805	**0.825**	0.346	0.86	0.554	0.798	0.806	**0.827**
Average		0.871	0.716	0.810	0.811	0.841	0.462	0.875	0.716	0.808	0.811	0.840

Tables 63: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{ij} = -.4$ for $i \neq j$ and V-shaped covariance structure at a = 4 with p = 3 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.049	0.051	0.047	0.046	0.047	0.05	0.051	0.052	0.05	0.047	0.048
(1,1,1)	0.16	0.88	0.69	0.804	0.806	0.837	0.36	**0.882**	0.692	0.803	0.808	0.84
(1,0,1)	0.566	0.88	0.802	0.805	0.806	0.847	0.325	**0.882**	0.803	0.803	0.806	0.847
(0,1,1)	0.181	**0.874**	0.636	0.801	0.806	0.831	0.415	**0.877**	0.636	0.802	0.805	0.834
(1,1,0)	0.181	**0.876**	0.636	0.801	0.802	0.831	0.418	**0.876**	0.637	0.802	0.806	0.834
(1,0,0)	1.033	0.859	0.796	0.802	0.804	0.839	0.493	0.862	0.795	0.801	0.804	0.84
(0,1,0)	0.207	0.863	0.545	0.794	0.804	0.821	0.5	0.86	0.546	0.796	0.804	0.824
(0,0,1)	1.033	0.861	0.798	0.805	0.802	0.841	0.5	0.862	0.799	0.806	0.806	0.843
Min.		**0.859**	0.545	**0.794**	0.802	**0.821**	0.325	**0.86**	0.546	**0.796**	0.804	**0.824**
Average		0.870	0.700	0.802	0.804	0.835	0.430	0.872	0.701	0.802	0.806	0.837

Tables 64: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{23} = -.4$, $r_{13} = .4$ and V-shaped covariance structure at a = 4 with p = 3 and n = 6

Direct.	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.052	0.05	0.049	0.048	0.048	0.047	0.046	0.046	0.046	0.044	0.047
(1,1,1)	1.831	0.884	0.845	0.884	**0.884**	**0.897**	**0.897**	0.785	0.792	0.829	0.829	0.84
(1,0,1)	8.684	0.857	0.885	0.88	0.885	0.894	**0.959**	0.754	0.831	0.825	0.831	0.843
(0,1,1)	1.932	0.861	0.78	0.883	0.883	0.89	**0.914**	0.777	0.734	0.831	0.831	0.837
(1,1,0)	1.932	0.859	0.78	0.882	0.881	0.89	**0.914**	0.775	0.733	0.828	0.828	0.834
(1,0,0)	10.38	0.819	0.882	0.812	0.878	0.86	**0.929**	0.773	0.828	0.76	0.824	0.799
(0,1,0)	2.076	0.832	0.653	0.879	0.876	0.886	**0.938**	0.763	0.616	0.829	0.827	0.831
(0,0,1)	10.38	0.827	0.891	0.883	0.888	0.87	**0.935**	0.782	0.835	0.77	0.833	0.81
Min.	N/A	**0.819**	0.653	**0.812**	**0.876**	**0.86**	**0.897**	**0.754**	0.616	**0.76**	**0.824**	**0.799**
Average		0.848	0.817	0.872	0.882	0.884	0.927	0.773	0.767	0.810	0.829	0.828

Tables 65: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{23} = -.4$, $r_{13} = .4$ and V-shaped covariance structure at a = 4 with p = 3 and n = 20

Direct.	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.048	0.048	0.049	0.048	0.049	0.051	0.053	0.048	0.049	0.05	0.05
(1,1,1)	0.576	**0.846**	0.694	0.813	0.812	0.841	0.692	**0.843**	0.691	0.808	0.813	0.842
(1,0,1)	2.733	0.838	0.814	0.814	**0.814**	**0.853**	0.781	0.838	0.808	0.812	**0.816**	**0.855**
(0,1,1)	0.608	0.832	0.621	0.808	0.805	0.831	0.716	0.833	0.621	0.804	0.807	0.832
(1,1,0)	0.608	0.836	0.623	0.81	0.808	0.835	0.719	0.829	0.622	0.81	0.812	0.836
(1,0,0)	3.267	0.808	0.799	0.789	0.799	0.806	0.758	**0.815**	0.794	0.787	0.8	0.806
(0,1,0)	0.653	0.822	0.531	0.802	0.798	0.826	0.757	0.822	0.53	0.799	0.801	0.829
(0,0,1)	3.267	0.803	0.798	0.791	0.8	0.803	0.755	0.809	0.792	0.788	0.8	0.803
Min.	N/A	**0.803**	0.531	**0.789**	**0.798**	**0.803**	0.692	**0.809**	0.53	**0.787**	**0.8**	**0.803**
Average		0.826	0.697	0.804	0.805	0.828	0.740	0.827	0.694	0.801	0.807	0.829

Tables 66: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{23} = -.4$, $r_{13} = .4$ and V-shaped covariance structure at a = 4 with p = 3 and n = 100

Direct.	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.05	0.05	0.047	0.047	0.048	0.048	0.05	0.051	0.049	0.047	0.049
(1,1,1)	0.234	**0.836**	0.665	0.799	0.797	0.825	0.649	**0.834**	0.665	0.799	0.795	0.825
(1,0,1)	1.112	0.835	0.8	0.801	**0.801**	**0.843**	0.738	0.836	0.802	0.802	0.803	**0.846**
(0,1,1)	0.247	0.828	0.6	0.796	0.792	0.817	0.678	**0.83**	0.601	0.795	0.792	0.817
(1,1,0)	0.247	0.824	0.596	0.79	0.787	0.813	0.679	**0.831**	0.597	0.788	0.788	0.815
(1,0,0)	1.329	0.795	0.769	0.776	0.777	0.782	0.704	0.802	0.771	0.776	0.778	0.785
(0,1,0)	0.266	0.814	0.51	0.784	0.778	0.807	0.72	0.812	0.512	0.784	0.78	0.808
(0,0,1)	1.329	0.805	0.776	0.78	0.782	0.79	0.711	0.806	0.779	0.781	0.783	0.791
Min.	N/A	**0.795**	0.51	**0.776**	**0.777**	**0.782**	0.649	0.802	0.512	**0.776**	0.778	**0.785**
Average		0.820	0.674	0.789	0.788	0.811	0.697	0.822	0.675	0.789	0.788	0.812

Tables 67: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{23} = .4$, $r_{13} = -.4$ and V-shaped covariance structure at a = 4 with p = 3 and n = 6

Direct.	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.05	0.05	0.05	0.051	0.049	0.047	0.046	0.046	0.047	0.047	0.048
(1,1,1)	2.084	0.869	0.888	0.893	0.893	0.903	**0.939**	0.79	0.833	0.838	0.838	0.842
(1,0,1)	4.422	0.839	**0.89**	0.65	0.872	0.701	0.56	0.777	0.843	0.61	0.825	0.59
(0,1,1)	1.836	0.83	0.825	**0.889**	**0.888**	**0.893**	0.874	0.773	0.776	0.836	0.834	0.832
(1,1,0)	1.836	0.831	0.823	0.886	**0.884**	**0.892**	0.872	0.776	0.775	0.835	0.833	0.835
(1,0,0)	8.073	0.802	0.887	0.618	0.854	0.723	0.783	0.753	0.835	0.575	0.803	0.621
(0,1,0)	1.615	0.778	0.661	0.874	0.861	0.878	0.772	0.747	0.62	0.822	0.81	0.817
(0,0,1)	8.073	0.808	**0.891**	0.625	0.858	0.734	0.783	0.754	0.835	0.577	0.806	0.634
Min.	N/A	**0.778**	0.661	0.618	**0.854**	**0.701**	0.56	**0.747**	0.62	0.575	0.803	0.59
Average		0.822	0.838	0.776	0.873	0.818	0.798	0.767	0.788	0.728	0.821	0.739

Tables 68: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{23} = .4$, $r_{13} = -.4$ and V-shaped covariance structure at a = 4 with p = 3 and n = 20

Direct.	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.049	0.05	0.049	0.05	0.049	0.053	0.053	0.05	0.05	0.051	0.049
(1,1,1)	0.656	0.821	0.766	0.816	**0.81**	**0.841**	0.756	0.822	0.765	0.813	**0.812**	**0.844**
(1,0,1)	1.392	0.806	0.798	0.659	0.739	0.61	0.348	0.811	0.796	0.661	0.745	0.615
(0,1,1)	0.578	0.794	0.664	0.797	0.778	0.817	0.641	0.803	0.663	0.795	0.78	0.819
(1,1,0)	0.578	0.797	0.667	0.8	0.781	0.819	0.644	0.798	0.663	0.796	0.78	0.82
(1,0,0)	2.541	0.781	0.789	0.638	0.721	0.642	0.529	0.781	0.786	0.638	0.722	0.649
(0,1,0)	0.508	0.771	0.528	0.765	0.724	0.792	0.513	0.769	0.528	0.765	0.728	0.795
(0,0,1)	2.541	0.782	0.796	0.644	0.728	0.641	0.542	0.794	0.79	0.64	0.728	0.644
Min.	N/A	**0.771**	0.528	0.638	0.721	0.61	0.348	**0.769**	0.528	0.638	0.722	0.615
Average		0.793	0.715	0.731	0.754	0.737	0.568	0.797	0.713	0.730	0.756	0.741

Tables 69: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{23} = .4$, $r_{13} = -.4$ and V-shaped covariance structure at a = 4 with p = 3 and n = 100

Direct.	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.048	0.046	0.047	0.046	0.046	0.054	0.054	0.048	0.048	0.047	0.048
(1,1,1)	0.267	0.797	0.728	0.79	**0.782**	**0.811**	0.721	0.809	0.728	0.789	0.782	**0.812**
(1,0,1)	0.566	**0.805**	0.786	0.655	0.718	0.594	0.324	0.798	0.788	0.658	0.72	0.598
(0,1,1)	0.235	0.779	0.631	0.772	**0.75**	**0.788**	0.601	0.79	0.631	0.774	0.751	**0.789**
(1,1,0)	0.235	0.778	0.629	0.771	**0.748**	**0.784**	0.603	**0.788**	0.63	0.772	0.749	**0.784**
(1,0,0)	1.033	**0.789**	0.776	0.637	0.7	0.626	0.508	**0.792**	0.778	0.639	0.702	0.629
(0,1,0)	0.207	0.76	0.509	0.738	0.695	0.758	0.495	**0.773**	0.509	0.738	0.696	0.76
(0,0,1)	1.033	**0.786**	0.773	0.635	0.7	0.624	0.503	**0.783**	0.776	0.636	0.7	0.628
Min.	N/A	**0.76**	0.509	0.635	0.695	0.594	0.324	**0.773**	0.509	0.636	0.696	0.598
Average		0.785	0.690	0.714	0.728	0.712	0.536	0.790	0.691	0.715	0.729	0.714

Table 70: Numerical comparisons for power of the tests for the simple order correlation and V-shaped covariance structure at a =5 with p = 6 and n = 10

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.051	0.049	0.051	0.05	0.052	0.053	0.049	0.049	0.051	0.05	0.051
(1,1,1,1,1,1)	0.515	0.93	0.673	0.868	0.867	0.902	0.344	0.893	0.67	0.863	0.862	0.895
(0,1,1,1,1,1)	0.522	0.925	0.642	0.868	0.867	0.901	0.351	0.89	0.638	0.862	0.861	0.894
(0,0,1,1,1,1)	0.549	0.918	0.609	0.866	0.865	0.899	0.375	0.884	0.606	0.861	0.86	0.891
(0,0,0,1,1,1)	0.959	0.893	0.662	0.868	0.868	0.902	0.593	0.863	0.658	0.863	0.862	0.892
(0,0,0,0,1,1)	5.523	0.888	0.866	0.86	0.869	0.893	0.624	0.859	0.86	0.855	0.863	0.883
(0,0,0,0,0,1)	17.17	0.849	0.869	0.838	0.869	0.884	0.959	0.84	0.864	0.832	0.864	0.873
Min.		0.849	0.609	**0.838**	0.865	0.884	0.344	**0.84**	0.606	**0.832**	0.86	**0.873**
Average		0.901	0.720	0.861	0.868	0.897	0.541	0.872	0.716	0.856	0.862	0.888

Table 71: Numerical comparisons for power of the tests for the simple order correlation and V-shaped covariance structure at a =5 with p = 6 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.052	0.049	0.05	0.048	0.05	0.051	0.048	0.049	0.05	0.049	0.049
(1,1,1,1,1,1)	0.232	0.92	0.567	0.821	0.817	0.875	0.199	**0.916**	0.567	0.826	0.817	0.871
(0,1,1,1,1,1)	0.235	**0.916**	0.544	0.82	0.815	0.873	0.196	**0.912**	0.544	825	0.815	0.87
(0,0,1,1,1,1)	0.247	0.912	0.524	0.819	0.813	0.872	0.212	**0.912**	0.525	0.824	0.816	0.868
(0,0,0,1,1,1)	0.432	0.902	0.559	0.819	0.812	0.875	0.327	0.895	0.559	0.822	0.815	0.867
(0,0,0,0,1,1)	2.486	0.897	0.795	0.826	0.826	0.878	0.347	0.894	0.796	0.828	0.826	0.875
(0,0,0,0,0,1)	7.726	0.873	0.833	0.828	0.834	0.881	0.715	0.866	0.831	0.831	0.835	0.876
Min.		**0.873**	0.524	0.819	0.812	**0.872**	0.196	0.866	0.525	**0.822**	0.815	0.867
Average		0.903	0.637	0.822	0.820	0.876	0.333	0.899	0.637	#####	0.821	0.871

Table 72: Numerical comparisons for power of the tests for the simple order correlation and V-shaped covariance structure at a =5 with p = 6 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.051	0.052	0.051	0.052	0.055	0.053	0.051	0.054	0.052	0.053	0.055
(1,1,1,1,1,1)	0.087	**0.917**	0.535	0.806	0.802	0.859	0.169	**0.917**	0.536	0.807	0.805	0.86
(0,1,1,1,1,1)	0.088	**0.916**	0.515	0.807	0.802	0.857	0.171	**0.914**	0.516	0.806	0.803	0.858
(0,0,1,1,1,1)	0.093	**0.914**	0.499	0.805	0.8	0.853	0.179	**0.916**	0.5	0.806	0.802	0.854
(0,0,0,1,1,1)	0.162	0.901	0.523	0.801	0.795	0.853	0.26	0.902	0.524	0.8	0.796	0.853
(0,0,0,0,1,1)	0.933	0.898	0.753	0.805	0.801	0.863	0.289	0.9	0.755	0.803	0.803	0.863
(0,0,0,0,0,1)	2.898	0.874	0.79	0.796	0.797	0.851	0.6	0.877	0.793	0.795	0.796	0.851
Min.		0.874	0.499	**0.796**	0.795	0.851	0.169	0.877	0.5	**0.795**	0.796	0.851
Average		0.903	0.603	0.803	0.800	0.856	0.278	0.904	0.604	0.803	0.801	0.857

Table 73: Numerical comparisons for power of the tests for the simple tree order correlation and V-shaped covariance structure at a = 5 with p = 6 and n = 10

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.051	0.051	0.05	0.051	0.05	**0.052**	0.051	0.051	0.051	0.052	0.049
(1,1,1,1,1,1)	1.337	0.774	0.712	0.87	0.862	0.903	**0.963**	0.767	0.709	0.866	0.857	0.9
(0,1,1,1,1,1)	1.306	0.763	0.669	0.868	0.856	0.902	**0.957**	0.762	0.664	0.864	0.851	0.898
(0,0,1,1,1,1)	1.263	0.749	0.621	0.868	0.847	0.895	**0.944**	0.75	0.617	0.862	0.842	0.893
(0,0,0,1,1,1)	1.605	0.749	0.617	0.845	0.8	0.867	**0.972**	0.754	0.613	0.84	0.795	0.862
(0,0,0,0,1,1)	8.864	0.733	0.843	0.48	0.815	0.709	**0.951**	0.737	0.84	0.477	0.811	0.703
(0,0,0,0,0,1)	17.17	0.724	0.844	0.372	0.745	0.689	**0.964**	0.733	0.839	0.371	0.74	0.685
Min.		0.724	0.617	0.372	0.745	0.689	**0.944**	0.733	0.613	0.371	0.74	0.685
Average		0.749	0.718	0.717	0.821	0.828	0.959	0.751	0.714	0.713	0.816	0.824

Table 74: Numerical comparisons for power of the tests for the simple tree order correlation and V-shaped covariance structure at a = 5 with p = 6 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.047	0.05	0.047	0.049	0.046	0.047	0.05	0.049	0.046	0.049	0.046
(1,1,1,1,1,1)	0.602	0.767	0.586	0.819	**0.767**	**0.866**	0.749	0.779	0.587	0.822	0.77	**0.868**
(0,1,1,1,1,1)	0.588	0.761	0.559	0.818	**0.759**	**0.863**	0.732	0.769	0.559	820	0.762	**0.865**
(0,0,1,1,1,1)	0.569	0.752	0.528	0.814	**0.738**	**0.854**	0.702	0.762	0.529	0.817	0.741	**0.857**
(0,0,0,1,1,1)	0.723	0.748	0.528	0.771	0.675	0.825	0.76	0.756	0.529	0.777	0.676	0.826
(0,0,0,0,1,1)	3.98	0.744	0.741	0.519	0.695	0.673	0.699	0.751	0.741	0.522	0.699	0.676
(0,0,0,0,0,1)	7.726	0.736	0.745	0.397	0.63	0.663	0.735	0.75	0.742	0.398	0.629	0.669
Min.		0.736	0.528	0.397	0.63	0.663	0.699	0.75	0.529	0.398	0.629	0.669
Average		0.751	0.615	0.690	0.711	0.791	0.730	0.761	0.615	#####	0.713	0.794

Table 75: Numerical comparisons for power of the tests for the simple tree order correlation and V-shaped covariance structure at a = 5 with p = 6 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.053	0.052	0.052	0.052	0.05	0.049	0.052	0.053	0.053	0.053	0.051
(1,1,1,1,1,1)	0.226	0.774	0.555	0.798	0.727	0.837	0.653	0.773	0.556	0.799	0.727	**0.838**
(0,1,1,1,1,1)	0.221	0.77	0.528	0.796	**0.717**	**0.833**	0.62	0.762	0.531	0.797	0.718	**0.834**
(0,0,1,1,1,1)	0.213	0.765	0.504	0.792	**0.7**	**0.823**	0.594	0.767	0.505	0.794	0.7	0.824
(0,0,0,1,1,1)	0.271	0.754	0.493	0.734	0.629	0.793	0.652	0.757	0.495	0.737	0.631	0.794
(0,0,0,0,1,1)	1.497	0.747	0.692	0.537	0.654	0.649	0.6	0.743	0.694	0.539	0.655	0.651
(0,0,0,0,0,1)	2.898	0.735	0.684	0.406	0.577	0.627	0.623	0.749	0.685	0.409	0.578	0.631
Min.		0.735	0.493	0.406	0.577	0.627	0.594	0.743	0.495	0.409	0.578	0.631
Average		0.758	0.576	0.677	0.667	0.760	0.624	0.759	0.578	0.679	0.668	0.762

Tables 76: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, r_{ij} = -.1 for i ≠j and V-shaped covariance structure at a = 5 with p = 6 and n = 10

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.053	0.048	0.052	0.051	0.053	0.052	0.051	0.049	0.052	0.052	0.052
(1,1,1,1,1,1)	1.173	0.899	0.818	0.872	0.873	0.906	**0.955**	0.86	0.814	0.868	0.868	0.903
(0,1,1,1,1,1)	1.191	0.89	0.786	0.87	0.87	0.906	**0.962**	0.85	0.782	0.865	0.866	0.901
(0,0,1,1,1,1)	1.226	0.875	0.747	0.868	0.869	0.901	**0.97**	0.841	0.745	0.867	0.867	0.897
(0,0,0,1,1,1)	1.843	0.855	0.771	0.867	0.873	0.897	**0.995**	0.836	0.767	0.863	0.869	0.89
(0,0,0,0,1,1)	9.65	0.84	0.865	0.842	0.865	0.877	**0.984**	0.812	0.86	0.837	0.86	0.869
(0,0,0,0,0,1)	21.52	0.806	0.869	0.806	0.868	0.87	**0.997**	0.796	0.864	0.801	0.862	0.859
Min.		**0.806**	**0.747**	**0.806**	**0.865**	**0.87**	**0.955**	**0.796**	**0.745**	**0.801**	0.86	**0.859**
Average		0.861	0.809	0.854	0.870	0.893	0.977	0.833	0.805	0.850	0.865	0.887

Tables 77: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, r_{ij} = -.1 for i ≠j and V-shaped covariance structure at a = 5 with p = 6 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.05	0.05	0.051	0.05	0.049	0.051	0.05	0.051	0.051	0.051	0.046
(1,1,1,1,1,1)	0.528	0.885	0.696	0.825	0.827	0.884	0.711	**0.882**	0.697	0.825	0.826	**0.881**
(0,1,1,1,1,1)	0.536	**0.88**	0.661	0.824	**0.826**	**0.88**	0.711	**0.874**	0.661	0.823	0.824	**0.878**
(0,0,1,1,1,1)	0.552	**0.87**	0.623	0.823	**0.824**	**0.875**	0.745	0.869	0.624	0.824	0.827	**0.872**
(0,0,0,1,1,1)	0.829	0.856	0.643	0.817	0.821	0.867	0.865	0.854	0.643	0.818	0.825	0.866
(0,0,0,0,1,1)	4.344	0.852	0.822	0.82	0.823	0.874	0.804	0.851	0.823	0.819	0.825	0.869
(0,0,0,0,0,1)	9.685	0.828	0.835	0.811	0.823	0.87	0.901	0.824	0.834	0.812	0.825	0.868
Min.		**0.828**	0.623	**0.811**	**0.821**	**0.867**	**0.711**	**0.824**	0.624	0.812	0.824	0.866
Average		0.862	0.713	0.820	0.824	0.875	0.790	0.859	0.714	0.820	0.825	0.872

Tables 78: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, r_{ij} = -.1 for i ≠j and V-shaped covariance structure at a = 5 with p = 6 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.052	0.051	0.05	0.05	0.052	0.051	0.051	0.054	0.052	0.051	0.053
(1,1,1,1,1,1)	0.198	**0.887**	0.645	0.806	0.808	0.861	0.604	**0.885**	0.647	0.806	0.809	0.863
(0,1,1,1,1,1)	0.201	**0.883**	0.612	0.807	0.81	0.857	0.61	**0.879**	0.613	0.806	0.811	0.859
(0,0,1,1,1,1)	0.207	**0.874**	0.578	0.806	0.809	0.852	0.644	**0.873**	0.58	0.803	0.809	0.852
(0,0,0,1,1,1)	0.311	0.855	0.599	0.792	0.8	0.842	0.769	0.853	0.6	0.794	0.802	0.842
(0,0,0,0,1,1)	1.629	0.861	0.797	0.801	0.801	0.862	0.695	0.854	0.798	0.801	0.801	0.863
(0,0,0,0,0,1)	3.633	0.829	0.796	0.785	0.781	0.839	0.822	0.83	0.799	0.787	0.782	0.839
Min.		**0.829**	0.578	**0.785**	0.781	0.839	0.604	**0.83**	0.58	**0.787**	0.782	0.839
Average		0.865	0.671	0.800	0.802	0.852	0.691	0.862	0.673	0.800	0.802	0.853

Table 79: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{14} = r_{25} = r_{26} = r_{35} = r_{36} = r_{45} = r_{46} = -.4$ and the rest of r_{ij} for $i \neq j$ $r_{ij} = .4$ and V-shaped covariance structure at a = 5 with p = 6 and n = 10

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.053	0.048	0.051	0.051	0.051	0.048	0.051	0.049	0.051	0.051	0.05
(1,1,1,1,1,1)	0.612	0.83	0.631	0.86	**0.844**	**0.892**	0.41	0.812	0.628	0.857	0.84	**0.887**
(0,1,1,1,1,1)	0.542	0.822	0.587	0.859	**0.831**	**0.887**	0.337	0.808	0.584	0.855	0.827	**0.882**
(0,0,1,1,1,1)	0.502	0.803	0.548	0.856	**0.811**	**0.882**	0.293	0.794	0.545	0.851	0.806	**0.877**
(0,0,0,1,1,1)	1.082	0.811	0.618	0.681	0.841	0.763	0.717	0.803	0.614	0.677	0.838	0.757
(0,0,0,0,1,1)	3.853	0.807	0.78	0.861	0.791	0.867	0.325	0.798	0.777	0.857	0.787	0.862
(0,0,0,0,0,1)	10.05	0.772	0.829	0.836	0.772	0.854	0.548	0.767	0.823	0.831	0.767	0.848
Min.		0.772	0.548	0.681	0.772	0.763	0.293	0.767	0.545	0.677	0.767	0.757
Average		0.808	0.666	0.826	0.815	0.858	0.438	0.797	0.662	0.821	0.811	0.852

Table 80: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{14} = r_{25} = r_{26} = r_{35} = r_{36} = r_{45} = r_{46} = -.4$ and the rest of r_{ij} for $i \neq j$ $r_{ij} = .4$ and V-shaped covariance structure at a = 5 with p = 6 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.047	0.052	0.05	0.047	0.048	0.051	0.05	0.053	0.051	0.048	0.048
(1,1,1,1,1,1)	0.275	0.826	0.54	0.813	**0.753**	**0.857**	0.234	0.831	0.541	0.81	0.755	**0.853**
(0,1,1,1,1,1)	0.244	0.82	0.508	0.806	**0.728**	**0.851**	0.197	0.824	0.509	0.804	0.73	**0.846**
(0,0,1,1,1,1)	0.226	0.809	0.489	0.798	**0.701**	**0.843**	0.169	0.811	0.487	0.797	0.703	0.839
(0,0,0,1,1,1)	0.487	0.808	0.525	0.644	0.731	0.69	0.409	0.811	0.524	0.644	0.733	0.689
(0,0,0,0,1,1)	1.734	0.804	0.658	0.806	0.676	0.83	0.179	0.814	0.659	0.806	0.678	0.826
(0,0,0,0,0,1)	4.524	0.79	0.712	0.797	0.661	0.824	0.286	0.793	0.713	0.795	0.66	0.823
Min.		0.79	0.489	0.644	0.661	0.69	0.169	0.793	0.487	0.644	0.66	0.689
Average		0.810	0.572	0.777	0.708	0.816	0.246	0.814	0.572	0.776	0.710	0.813

Table 81: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{p \times p}$, $r_{12} = r_{14} = r_{25} = r_{26} = r_{35} = r_{36} = r_{45} = r_{46} = -.4$ and the rest of r_{ij} for $i \neq j$ $r_{ij} = .4$ and V-shaped covariance structure at a = 5 with p = 6 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.051	0.049	0.05	0.051	0.05	0.048	0.054	0.051	0.051	0.052	0.052
(1,1,1,1,1,1)	0.103	0.825	0.508	0.779	0.715	0.826	0.191	0.822	0.509	0.782	0.718	0.829
(0,1,1,1,1,1)	0.092	0.819	0.481	0.769	0.683	0.817	0.165	0.82	0.482	0.769	0.684	0.819
(0,0,1,1,1,1)	0.085	0.811	0.46	0.756	0.655	0.808	0.15	0.805	0.46	0.757	0.656	0.81
(0,0,0,1,1,1)	0.183	0.81	0.496	0.617	0.691	0.652	0.334	0.814	0.497	0.619	0.692	0.654
(0,0,0,0,1,1)	0.651	0.811	0.613	0.772	0.63	0.804	0.154	0.809	0.613	0.772	0.631	0.803
(0,0,0,0,0,1)	1.697	0.79	0.656	0.75	0.605	0.78	0.234	0.799	0.658	0.75	0.605	0.781
Min.		0.79	0.46	0.617	0.605	0.652	0.15	0.799	0.46	0.619	0.605	0.654
Average		0.811	0.536	0.741	0.663	0.781	0.205	0.812	0.537	0.742	0.664	0.783

Table 82: Numerical comparisons for power of the tests for the simple order correlation and inverted V-shaped covariance structure at a =4 with p = 3 and n = 6

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.053	0.051	0.05	0.05	0.05	0.046	0.05	0.048	0.047	0.047	0.047
(1,1,1)	1.07	0.92	0.867	0.89	**0.89**	**0.905**	0.709	0.809	0.812	0.834	0.834	0.846
(1,0,1)	1.182	**0.9**	0.82	0.888	0.889	0.901	0.775	0.801	0.773	0.836	0.836	0.843
(0,1,1)	1.68	0.897	0.873	0.89	**0.89**	**0.904**	0.825	0.82	0.823	0.838	0.839	0.845
(1,1,0)	1.68	0.892	0.866	0.881	0.883	0.893	0.822	0.81	0.809	0.823	0.825	0.836
(1,0,0)	1.93	0.856	0.774	0.872	0.878	0.885	0.894	0.792	0.73	0.822	0.828	0.833
(0,1,0)	8.356	0.872	0.888	0.88	0.884	0.897	0.819	0.791	0.836	0.829	0.832	0.842
(0,0,1)	1.93	0.864	0.783	0.883	0.89	0.894	0.898	0.805	0.734	0.828	0.834	0.839
Min.		**0.856**	**0.774**	**0.872**	**0.878**	**0.885**	**0.709**	**0.791**	**0.73**	**0.822**	**0.825**	**0.833**
Average		0.886	0.839	0.883	0.886	0.897	0.820	0.804	0.788	0.830	0.833	0.841

Table 83: Numerical comparisons for power of the tests for the simple order correlation and inverted V-shaped covariance structure at a =4 with p = 3 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.048	0.047	0.049	0.049	0.049	0.051	0.048	0.049	0.051	0.051	0.049
(1,1,1)	0.337	0.881	0.709	0.811	0.812	0.849	0.463	0.884	0.709	0.81	0.812	0.849
(1,0,1)	0.372	0.874	0.65	0.811	0.812	0.844	0.511	**0.876**	0.652	0.812	0.814	0.845
(0,1,1)	0.529	0.861	0.722	0.813	0.813	0.845	0.595	0.866	0.724	0.813	0.814	0.845
(1,1,0)	0.529	0.859	0.722	0.813	0.814	0.846	0.589	0.861	0.724	0.814	0.817	0.846
(1,0,0)	0.607	0.843	0.618	0.813	0.816	0.838	0.694	0.848	0.621	0.813	0.817	0.837
(0,1,0)	2.63	0.845	0.809	0.81	0.802	0.85	0.564	0.849	0.812	0.809	0.803	0.851
(0,0,1)	0.607	0.841	0.622	0.812	0.815	0.835	0.687	0.844	0.622	0.812	0.816	0.833
Min.		0.841	0.618	**0.81**	**0.802**	**0.835**	0.463	**0.844**	0.621	**0.809**	**0.803**	**0.833**
Average		0.858	0.693	0.812	0.812	0.844	0.586	0.861	0.695	0.812	0.813	0.844

Table 84: Numerical comparisons for power of the tests for the simple order correlation and inverted V-shaped covariance structure at a =4 with p = 3 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.049	0.048	0.046	0.047	0.048	0.053	0.051	0.051	0.047	0.049	0.05
(1,1,1)	0.137	**0.875**	0.687	0.803	0.804	0.839	0.431	**0.88**	0.687	0.806	0.805	0.839
(1,0,1)	0.151	**0.87**	0.628	0.8	0.802	0.833	0.479	0.866	0.628	0.803	0.804	0.836
(0,1,1)	0.215	0.857	0.696	0.802	0.803	0.835	0.55	0.861	0.699	0.805	0.803	0.835
(1,1,0)	0.215	0.857	0.691	0.797	0.798	0.831	0.544	0.859	0.694	0.8	0.797	0.831
(1,0,0)	0.247	0.838	0.589	0.794	0.797	0.82	0.643	0.838	0.59	0.797	0.797	0.819
(0,1,0)	1.069	0.851	0.804	0.805	0.796	0.844	0.53	0.851	0.808	0.805	0.795	0.846
(0,0,1)	0.247	0.841	0.593	0.798	0.803	0.825	0.652	0.842	0.595	0.801	0.804	0.826
Min.		**0.838**	0.589	**0.794**	**0.796**	**0.82**	0.431	**0.838**	0.595	**0.797**	0.795	**0.819**
Average		0.856	0.670	0.800	0.800	0.832	0.547	0.857	0.672	0.802	0.801	0.833

Tables 85: Numerical comparisons for power of the tests for the simple tree order correlation and inverted V-shaped covariance structure at a = 4 with p = 3 and n = 6

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.048	0.05	0.052	0.05	0.049	0.048	0.045	0.045	0.048	0.045	0.048
(1,1,1)	1.834	0.83	0.873	0.886	0.886	0.895	**0.97**	0.748	0.822	0.834	0.834	0.835
(1,0,1)	1.671	0.797	0.808	0.886	0.885	0.888	0.938	0.732	0.763	0.837	0.837	0.828
(0,1,1)	2.027	0.802	0.845	0.858	0.882	0.865	0.929	0.755	0.794	0.806	0.829	0.804
(1,1,0)	2.027	0.791	0.837	0.85	0.87	0.85	0.926	0.74	0.791	0.803	0.823	0.795
(1,0,0)	1.93	0.763	0.693	0.843	0.847	0.855	0.898	0.726	0.658	0.799	0.803	0.804
(0,1,0)	9.649	0.768	0.889	0.445	0.856	0.707	0.901	0.725	0.836	0.413	0.804	0.59
(0,0,1)	1.93	0.774	0.699	0.851	0.855	0.867	0.904	0.735	0.658	0.798	0.802	0.811
Min.		**0.763**	0.693	0.445	**0.847**	**0.707**	**0.898**	**0.725**	0.658	0.413	0.802	0.59
Average		0.789	0.806	0.803	0.869	0.847	0.924	0.737	0.760	0.756	0.819	0.781

Tables 86: Numerical comparisons for power of the tests for the simple tree order correlation and inverted V-shaped covariance structure at a = 4 with p = 3 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.047	0.05	0.048	0.049	0.048	0.049	0.05	0.051	0.05	0.051	0.05
(1,1,1)	0.577	0.798	0.738	0.813	**0.808**	**0.842**	0.808	0.803	0.739	0.813	0.81	0.84
(1,0,1)	0.526	0.779	0.643	0.81	0.795	0.826	0.731	0.782	0.642	0.81	0.793	0.824
(0,1,1)	0.638	0.772	0.681	0.77	0.756	0.779	0.739	0.785	0.682	0.771	0.757	0.782
(1,1,0)	0.638	0.773	0.68	0.771	0.756	0.782	0.731	0.778	0.679	0.77	0.758	0.784
(1,0,0)	0.607	0.755	0.551	0.754	0.715	0.782	0.7	0.768	0.552	0.753	0.716	0.782
(0,1,0)	3.037	0.76	0.813	0.495	0.722	0.64	0.685	0.765	0.814	0.496	0.722	0.644
(0,0,1)	0.607	0.761	0.554	0.759	0.719	0.78	0.688	0.768	0.552	0.757	0.719	0.782
Min.		**0.755**	0.551	0.495	0.715	0.64	0.685	**0.765**	0.552	0.496	0.716	0.644
Average		0.771	0.666	0.739	0.753	0.776	0.726	0.778	0.666	0.739	0.754	0.777

Tables 87: Numerical comparisons for power of the tests for the simple tree order correlation and inverted V-shaped covariance structure at a = 4 with p = 3 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.049	0.046	0.049	0.048	0.048	0.051	0.049	0.047	0.049	0.049	0.051
(1,1,1)	0.235	0.793	0.712	0.803	**0.796**	**0.829**	0.768	0.798	0.712	0.804	0.795	0.833
(1,0,1)	0.214	0.781	0.616	0.802	0.781	0.811	0.688	0.78	0.616	0.8	0.782	0.816
(0,1,1)	0.259	0.769	0.651	0.751	0.731	0.764	0.693	0.771	0.65	0.749	0.731	0.766
(1,1,0)	0.259	0.767	0.65	0.75	0.731	0.758	0.692	0.769	0.65	0.75	0.729	0.763
(1,0,0)	0.247	0.752	0.522	0.729	0.682	0.753	0.648	0.76	0.522	0.728	0.683	0.758
(0,1,0)	1.235	0.752	0.788	0.509	0.679	0.613	0.653	0.761	0.788	0.51	0.681	0.614
(0,0,1)	0.247	0.76	0.523	0.736	0.683	0.763	0.649	0.758	0.524	0.74	0.683	0.765
Min.		0.752	0.522	0.509	0.679	0.613	0.648	0.758	0.522	0.51	0.681	0.614
Average		0.768	0.637	0.726	0.726	0.756	0.684	0.771	0.637	0.726	0.726	0.759

Tables 88: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{ij} = -.4$ for $i \neq j$ and inverted V-shaped covariance structure at a = 4 with p = 3 and n = 6

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.055	0.051	0.05	0.051	0.05	0.048	0.05	0.047	0.048	0.047	0.048
(1,1,1)	0.817	0.934	0.822	0.89	0.89	0.904	0.508	0.835	0.774	0.837	0.837	0.848
(1,0,1)	0.884	0.919	0.755	0.889	0.889	0.902	0.552	0.827	0.713	0.838	0.838	0.847
(0,1,1)	1.412	0.907	0.846	0.89	0.889	0.906	0.693	0.831	0.796	0.837	0.837	0.848
(1,1,0)	1.412	0.915	0.841	0.884	0.885	0.9	0.694	0.83	0.793	0.833	0.834	0.847
(1,0,0)	1.615	0.882	0.732	0.88	0.882	0.893	0.781	0.813	0.684	0.828	0.829	0.838
(0,1,0)	8.073	0.886	0.89	0.883	0.887	0.9	0.793	0.811	0.834	0.827	0.831	0.841
(0,0,1)	1.615	0.881	0.738	0.887	0.888	0.898	0.781	0.815	0.691	0.832	0.832	0.846
Min.		0.881	**0.732**	0.88	0.882	0.893	0.552	**0.811**	0.684	**0.827**	**0.829**	**0.838**
Average		0.903	0.803	0.886	0.887	0.900	0.686	0.823	0.755	0.833	0.834	0.845

Tables 89: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{ij} = -.4$ for $i \neq j$ and inverted V-shaped covariance structure at a = 4 with p = 3 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.05	0.047	0.047	0.049	0.049	0.053	0.049	0.047	0.049	0.052	0.049
(1,1,1)	0.257	0.894	0.652	0.814	0.814	0.849	0.328	0.896	0.653	0.819	0.817	0.849
(1,0,1)	0.278	0.888	0.6	0.816	0.816	0.846	0.346	0.892	0.597	0.82	0.816	0.846
(0,1,1)	0.445	0.878	0.682	0.814	0.814	0.847	0.45	0.882	0.681	0.817	0.816	0.848
(1,1,0)	0.445	0.876	0.679	0.81	0.81	0.844	0.448	0.876	0.678	0.813	0.811	0.848
(1,0,0)	0.508	0.859	0.58	0.809	0.81	0.839	0.537	0.866	0.578	0.814	0.811	0.84
(0,1,0)	2.541	0.858	0.806	0.807	0.805	0.848	0.532	0.86	0.803	0.812	0.806	0.848
(0,0,1)	0.508	0.863	0.585	0.816	0.816	0.841	0.539	0.867	0.585	0.817	0.817	0.841
Min.		0.858	0.58	**0.807**	**0.805**	**0.839**	0.328	0.86	0.585	**0.812**	**0.806**	**0.84**
Average		0.874	0.655	0.812	0.812	0.845	0.454	0.877	0.654	0.816	0.813	0.846

Tables 90: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{ij} = -.4$ for $i \neq j$ and inverted V-shaped covariance structure at a = 4 with p = 3 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.049	0.048	0.046	0.046	0.048	0.05	0.051	0.05	0.048	0.047	0.049
(1,1,1)	0.105	0.885	0.629	0.802	0.803	0.837	0.302	0.892	0.632	0.803	0.805	0.842
(1,0,1)	0.113	0.88	0.573	0.803	0.805	0.833	0.325	0.882	0.575	0.803	0.806	0.837
(0,1,1)	0.181	0.87	0.655	0.803	0.804	0.839	0.419	0.877	0.656	0.801	0.805	0.842
(1,1,0)	0.181	0.871	0.653	0.8	0.801	0.837	0.418	0.873	0.654	0.802	0.802	0.841
(1,0,0)	0.207	0.859	0.56	0.8	0.802	0.828	0.498	0.862	0.56	0.801	0.804	0.832
(0,1,0)	1.033	0.863	0.802	0.805	0.804	0.847	0.492	0.86	0.805	0.808	0.804	0.851
(0,0,1)	0.207	0.861	0.561	0.801	0.804	0.831	0.503	0.862	0.562	0.803	0.806	0.833
Min.		0.859	0.561	**0.8**	**0.801**	**0.828**	0.302	0.86	0.56	**0.801**	0.802	**0.832**
Average		0.870	0.633	0.802	0.803	0.836	0.422	0.873	0.635	0.803	0.805	0.840

Tables 91: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{p \times p}$, $r_{12} = r_{23} = -.4$, $r_{13} = .4$ and inverted V-shaped covariance structure at $a = 4$ with $p = 3$ and $n = 6$

Direct.	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.052	0.051	0.05	0.048	0.05	0.047	0.046	0.047	0.047	0.044	0.047
(1,1,1)	1.594	0.885	0.884	0.886	0.886	0.899	**0.933**	0.775	0.832	0.834	0.834	0.844
(1,0,1)	1.737	0.857	0.863	0.885	0.885	0.896	**0.959**	0.754	0.81	0.83	0.831	0.837
(0,1,1)	1.932	0.866	0.879	0.881	0.89	0.888	**0.911**	0.8	0.828	0.829	0.838	0.829
(1,1,0)	1.932	0.862	0.871	0.871	0.881	0.878	**0.905**	0.79	0.821	0.82	0.83	0.824
(1,0,0)	2.076	0.819	0.772	0.85	0.878	0.866	**0.929**	0.773	0.725	0.796	0.824	0.806
(0,1,0)	10.38	0.832	0.883	0.862	0.876	0.886	**0.938**	0.763	0.833	0.813	0.827	0.826
(0,0,1)	2.076	0.827	0.781	0.861	0.888	0.876	**0.935**	0.782	0.732	0.807	0.833	0.82
Min.	N/A	**0.819**	**0.772**	**0.85**	**0.876**	**0.866**	**0.905**	**0.754**	**0.725**	**0.796**	**0.824**	**0.806**
Average		0.850	0.848	0.871	0.883	0.884	0.930	0.777	0.797	0.818	0.831	0.827

Tables 92: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{p \times p}$, $r_{12} = r_{23} = -.4$, $r_{13} = .4$ and inverted V-shaped covariance structure at $a = 4$ with $p = 3$ and $n = 20$

Direct.	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.049	0.047	0.048	0.048	0.049	0.052	0.051	0.048	0.048	0.05	0.05
(1,1,1)	0.502	**0.851**	0.769	0.813	**0.814**	**0.851**	0.724	**0.851**	0.766	0.81	**0.814**	**0.852**
(1,0,1)	0.547	0.838	0.713	0.813	**0.814**	**0.845**	0.776	0.842	0.71	0.81	**0.816**	**0.845**
(0,1,1)	0.608	0.826	0.734	0.8	0.805	0.82	0.703	0.827	0.731	0.798	0.807	0.82
(1,1,0)	0.608	0.826	0.733	0.804	0.808	0.821	0.71	0.832	0.731	0.803	0.81	0.823
(1,0,0)	0.653	0.808	0.618	0.782	0.799	0.802	0.754	0.816	0.617	0.783	0.8	0.804
(0,1,0)	3.267	0.822	0.816	0.813	0.798	0.847	0.758	0.819	0.814	0.81	**0.801**	**0.849**
(0,0,1)	0.653	0.803	0.623	0.784	0.8	0.8	0.75	0.803	0.619	0.781	0.8	0.8
Min.	N/A	**0.803**	0.618	**0.782**	**0.798**	**0.8**	**0.703**	**0.803**	0.617	**0.781**	**0.8**	**0.8**
Average		0.825	0.715	0.801	0.805	0.827	0.739	0.827	0.713	0.799	0.807	0.828

Tables 93: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{23} = -.4$, $r_{13} = .4$ and inverted V-shaped covariance structure at a = 4 with p = 3 and n = 100

Direct.	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.05	0.049	0.046	0.047	0.05	0.056	0.055	0.049	0.048	0.047	0.05
(1,1,1)	0.204	**0.848**	0.739	0.8	0.8	0.84	0.679	**0.842**	0.741	0.798	0.801	0.84
(1,0,1)	0.222	**0.835**	0.685	0.799	**0.801**	**0.831**	0.734	0.832	0.688	0.8	0.803	**0.832**
(0,1,1)	0.247	0.821	0.707	0.788	0.792	0.804	0.668	0.823	0.709	0.788	0.792	0.804
(1,1,0)	0.247	0.813	0.701	0.785	0.786	0.798	0.67	0.818	0.702	0.785	0.786	0.799
(1,0,0)	0.266	0.795	0.587	0.762	0.777	0.776	0.705	0.799	0.588	0.761	0.778	0.777
(0,1,0)	1.329	0.814	0.8	0.799	**0.778**	**0.834**	0.72	0.815	0.802	0.798	0.78	**0.835**
(0,0,1)	0.266	0.805	0.593	0.764	0.782	0.783	0.715	0.808	0.595	0.766	0.783	0.784
Min.	N/A	**0.795**	0.587	**0.762**	**0.777**	**0.776**	0.668	**0.799**	0.588	**0.761**	0.778	**0.777**
Average		0.819	0.687	0.785	0.788	0.809	0.699	0.820	0.689	0.785	0.789	0.810

Tables 94: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{23} = .4$, $r_{13} = -.4$ and inverted V-shaped covariance structure at a = 4 with p = 3 and n = 6

Direct.	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.05	0.048	0.051	0.051	0.051	0.047	0.046	0.044	0.048	0.047	0.049
(1,1,1)	0.958	0.86	0.794	**0.892**	0.886	0.901	0.63	0.785	0.75	0.842	0.836	0.846
(1,0,1)	0.884	0.839	0.691	**0.889**	**0.872**	**0.893**	0.56	0.777	0.654	0.843	0.825	0.841
(0,1,1)	1.836	0.833	0.839	0.888	**0.884**	**0.901**	0.878	0.767	0.79	0.837	0.833	0.846
(1,1,0)	1.836	0.822	0.831	0.879	**0.875**	**0.89**	0.875	0.763	0.785	0.83	0.826	0.839
(1,0,0)	1.615	0.802	0.671	**0.883**	**0.854**	**0.884**	0.783	0.753	0.632	0.831	0.803	0.837
(0,1,0)	8.073	0.778	**0.891**	0.244	0.861	0.553	0.772	0.747	0.838	0.222	0.81	0.424
(0,0,1)	1.615	0.808	0.675	**0.887**	**0.858**	**0.891**	0.783	0.754	0.636	0.832	0.806	0.837
Min.	N/A	**0.778**	0.671	0.244	0.854	0.553	0.56	**0.747**	0.632	0.222	0.803	0.424
Average		0.820	0.770	0.795	0.870	0.845	0.754	0.764	0.726	0.748	0.820	0.781

Tables 95: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{23} = .4$, $r_{13} = -.4$ and inverted V-shaped covariance structure at a = 4 with p = 3 and n = 20

Direct.	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.05	0.048	0.048	0.05	0.049	0.051	0.052	0.05	0.048	0.051	0.05
(1,1,1)	0.302	0.815	0.624	0.813	**0.77**	**0.836**	0.4	0.816	0.623	0.81	**0.775**	**0.837**
(1,0,1)	0.278	0.806	0.546	0.809	**0.739**	**0.827**	0.352	0.811	0.544	0.809	**0.745**	**0.828**
(0,1,1)	0.578	0.798	0.673	0.811	**0.775**	**0.838**	0.651	0.807	0.671	0.806	**0.777**	**0.838**
(1,1,0)	0.578	0.797	0.672	0.812	**0.775**	**0.835**	0.651	0.807	0.67	0.808	**0.775**	**0.837**
(1,0,0)	0.508	0.781	0.533	0.803	**0.721**	**0.821**	0.535	0.794	0.532	0.801	**0.722**	**0.82**
(0,1,0)	2.541	0.771	0.8	0.281	0.724	0.48	0.519	0.772	0.798	0.282	0.728	0.485
(0,0,1)	0.508	0.782	0.537	0.81	**0.728**	**0.823**	0.536	0.79	0.534	0.806	**0.728**	**0.827**
Min.	N/A	**0.771**	0.533	0.281	0.721	0.48	0.352	**0.772**	0.532	0.282	0.722	0.485
Average		0.793	0.626	0.734	0.747	0.780	0.521	0.800	0.625	0.732	0.750	0.782

Tables 96: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{pxp}$, $r_{12} = r_{23} = .4$, $r_{13} = -.4$ and inverted V-shaped covariance structure at a = 4 with p = 3 and n = 100

Direct.	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0)	0	0.048	0.046	0.048	0.046	0.047	0.048	0.048	0.048	0.049	0.047	0.049
(1,1,1)	0.123	0.813	0.595	0.804	**0.747**	**0.825**	0.373	0.814	0.596	0.805	0.748	**0.826**
(1,0,1)	0.113	0.805	0.528	0.803	0.718	0.814	0.32	0.803	0.53	0.803	0.72	0.817
(0,1,1)	0.235	0.796	0.643	0.8	**0.753**	**0.823**	0.61	0.793	0.643	0.802	0.753	**0.823**
(1,1,0)	0.235	0.796	0.64	0.8	**0.753**	**0.826**	0.614	0.796	0.642	0.803	0.753	**0.828**
(1,0,0)	0.207	0.789	0.516	0.796	0.7	0.812	0.497	0.786	0.517	0.797	0.702	0.814
(0,1,0)	1.033	0.76	**0.777**	0.296	0.695	0.466	0.481	0.771	**0.778**	0.297	0.696	0.465
(0,0,1)	0.207	0.786	0.512	0.795	0.7	0.809	0.5	0.791	0.514	0.796	0.7	0.809
Min.	N/A	**0.76**	0.512	0.296	0.695	0.466	0.32	**0.771**	0.514	0.297	0.696	0.465
Average		0.792	0.602	0.728	0.724	0.768	0.485	0.793	0.603	0.729	0.725	0.769

Table 97: Numerical comparisons for power of the tests for the simple order correlation and inverted V-shaped covariance structure at a =5 with p = 6 and n = 10

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.051	0.05	0.049	0.05	0.05	0.053	0.049	0.051	0.049	0.05	0.048
(1,1,1,1,1,1)	0.794	0.937	0.86	0.873	0.873	0.909	0.664	0.893	0.854	0.866	0.866	0.902
(0,1,1,1,1,1)	1.123	**0.925**	0.864	0.868	0.869	0.907	0.761	0.892	0.858	0.861	0.862	0.896
(0,0,1,1,1,1)	1.209	0.908	0.856	0.866	0.868	0.903	0.814	0.884	0.855	0.865	0.866	0.893
(0,0,0,1,1,1)	1.273	0.894	0.833	0.867	0.871	0.9	0.853	0.871	0.828	0.863	0.866	0.89
(0,0,0,0,1,1)	1.356	0.878	0.772	0.864	0.872	0.898	0.895	0.859	0.766	0.858	0.866	0.888
(0,0,0,0,0,1)	1.56	0.849	0.66	0.852	0.869	0.89	0.959	0.84	0.656	0.846	0.864	0.88
Min.		0.849	0.66	**0.852**	0.868	0.89	0.664	**0.84**	0.656	**0.846**	0.862	0.88
Average		0.899	0.808	0.865	0.870	0.901	0.824	0.873	0.803	0.860	0.865	0.892

Table 98: Numerical comparisons for power of the tests for the simple order correlation and inverted V-shaped covariance structure at a =5 with p = 6 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.052	0.049	0.051	0.048	0.051	0.051	0.048	0.05	0.051	0.049	0.051
(1,1,1,1,1,1)	0.357	**0.929**	0.758	0.824	0.824	0.89	0.383	0.925	0.757	0.826	0.824	0.887
(0,1,1,1,1,1)	0.506	**0.924**	0.789	0.83	0.83	0.892	0.447	0.917	0.789	0.829	0.831	0.891
(0,0,1,1,1,1)	0.544	0.912	0.767	0.829	0.831	0.888	0.498	0.905	0.765	0.831	0.831	0.884
(0,0,0,1,1,1)	0.573	0.901	0.722	0.828	0.831	0.882	0.532	0.892	0.723	0.83	0.829	0.877
(0,0,0,0,1,1)	0.61	0.889	0.654	0.823	0.831	0.875	0.598	0.884	0.654	0.826	0.831	0.87
(0,0,0,0,0,1)	0.702	0.873	0.571	0.815	0.834	0.867	0.715	0.866	0.571	0.814	0.835	0.864
Min.		0.873	0.571	**0.815**	0.824	0.867	0.383	0.866	0.571	**0.814**	0.824	0.864
Average		0.905	0.710	0.825	0.830	0.882	0.529	0.898	0.710	0.826	0.830	0.879

Table 99: Numerical comparisons for power of the tests for the simple order correlation and inverted V-shaped covariance structure at a =5 with p = 6 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.051	0.048	0.049	0.052	0.051	0.053	0.051	0.05	0.051	0.053	0.051
(1,1,1,1,1,1)	0.134	0.925	0.707	0.804	0.805	0.872	0.308	**0.921**	0.708	0.804	0.807	0.871
(0,1,1,1,1,1)	0.19	0.914	0.739	0.806	0.806	0.869	0.362	**0.916**	0.741	0.807	0.807	0.867
(0,0,1,1,1,1)	0.204	0.905	0.709	0.8	0.801	0.861	0.406	0.903	0.712	0.8	0.802	0.858
(0,0,0,1,1,1)	0.215	0.898	0.665	0.796	0.799	0.853	0.438	0.896	0.666	0.795	0.8	0.851
(0,0,0,0,1,1)	0.229	0.889	0.596	0.787	0.797	0.842	0.496	0.89	0.6	0.789	0.802	0.84
(0,0,0,0,0,1)	0.263	0.874	0.518	0.776	0.797	0.828	0.612	0.878	0.52	0.777	0.796	0.826
Min.		0.874	0.518	**0.776**	**0.797**	**0.828**	0.308	0.878	0.52	**0.777**	0.796	**0.826**
Average		0.901	0.656	0.795	0.801	0.854	0.437	0.901	0.658	0.795	0.802	0.852

Table 100: Numerical comparisons for power of the tests for the simple tree order correlation and inverted V-shaped covariance structure at a = 5 with p = 6 and n = 10

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.051	0.05	0.047	0.051	0.05	0.052	0.051	0.05	0.048	0.052	0.05
(1,1,1,1,1,1)	1.337	0.789	0.719	0.88	0.87	0.908	**0.968**	0.784	0.713	0.872	0.862	0.907
(0,1,1,1,1,1)	1.675	0.769	0.72	0.85	0.832	0.87	**0.982**	0.766	0.714	0.843	0.826	0.869
(0,0,1,1,1,1)	1.631	0.754	0.669	0.844	0.812	0.867	**0.976**	0.756	0.665	0.839	0.808	0.863
(0,0,0,1,1,1)	1.605	0.744	0.614	0.843	0.8	0.869	**0.972**	0.749	0.611	0.839	0.796	0.866
(0,0,0,0,1,1)	1.583	0.734	0.559	0.842	0.782	0.872	**0.968**	0.739	0.556	0.838	0.779	0.868
(0,0,0,0,0,1)	1.56	0.724	0.494	0.837	0.745	0.869	**0.964**	0.733	0.492	0.831	0.74	0.868
Min.		**0.724**	0.494	**0.837**	**0.745**	**0.867**	0.964	0.733	0.492	**0.831**	0.74	**0.863**
Average		0.752	0.629	0.849	0.807	0.876	0.972	0.755	0.625	0.844	0.802	0.874

Table 101: Numerical comparisons for power of the tests for the simple tree order correlation and inverted V-shaped covariance structure at a = 5 with p = 6 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.047	0.049	0.049	0.049	0.047	0.047	0.05	0.048	0.049	0.049	0.049
(1,1,1,1,1,1)	0.602	0.768	0.593	0.821	0.769	0.863	0.754	0.782	0.593	0.825	0.77	0.864
(0,1,1.1,1,1)	0.754	0.766	0.605	0.793	0.724	0.838	0.802	0.773	0.605	0.793	0.726	0.84
(0,0,1,1,1,1)	0.734	0.757	0.568	0.781	0.695	0.832	0.773	0.751	0.568	0.782	0.696	0.835
(0,0,0.1,1,1)	0.722	0.75	0.528	0.777	0.675	0.83	0.76	0.751	0.529	0.779	0.676	0.834
(0,0,0,0,1,1)	0.712	0.743	0.487	0.774	0.656	0.83	0.749	0.758	0.487	0.775	0.658	0.833
(0,0,0,0,0,1)	0.702	0.736	0.454	0.768	0.63	0.829	0.738	0.745	0.454	0.769	0.629	0.834
Min.		**0.736**	0.454	**0.768**	0.63	0.829	**0.738**	**0.745**	0.454	**0.769**	0.629	0.833
Average		0.753	0.539	0.786	0.692	0.837	0.763	0.760	0.539	0.787	0.693	0.840

Table 102: Numerical comparisons for power of the tests for the simple tree order correlation and inverted V-shaped covariance structure at a = 5 with p = 6 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.053	0.052	0.051	0.052	0.05	0.049	0.052	0.053	0.052	0.053	0.052
(1,1,1,1,1,1)	0.226	0.761	0.551	0.786	0.718	0.83	0.646	0.781	0.552	0.787	0.718	0.83
(0,1,1.1,1,1)	0.283	0.758	0.557	0.745	0.668	0.795	0.7	0.77	0.558	0.746	0.671	0.797
(0,0,1,1,1,1)	0.275	0.752	0.524	0.734	0.643	0.787	0.666	0.754	0.526	0.735	0.644	0.79
(0,0,0,1,1,1)	0.271	0.747	0.489	0.728	0.626	0.787	0.65	0.751	0.491	0.728	0.628	0.79
(0,0,0,0,1,1)	0.267	0.741	0.457	0.724	0.608	0.786	0.645	0.745	0.46	0.727	0.61	0.789
(0,0,0,0,0,1)	0.263	0.735	0.426	0.71	0.577	0.781	0.623	0.74	0.427	0.713	0.578	0.785
Min.		**0.735**	0.426	**0.71**	0.577	0.781	0.623	**0.74**	0.427	**0.713**	0.578	0.785
Average		0.749	0.501	0.738	0.640	0.794	0.655	0.757	0.502	0.739	0.642	0.797

Tables 103: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{p \times p}$, $r_{ij} = -.1$ for $i \neq j$ and inverted V-shaped covariance structure at a = 5 with p = 6 and n = 10

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.053	0.051	0.049	0.051	0.049	0.052	0.051	0.051	0.049	0.052	0.049
(1,1,1,1,1,1)	1.173	0.9	0.816	0.874	0.875	0.906	**0.953**	0.861	0.812	0.87	0.87	0.905
(0,1,1,1,1,1)	1.732	0.887	0.842	0.866	0.868	0.9	**0.988**	0.857	0.837	0.861	0.864	0.893
(0,0,1,1,1,1)	1.806	0.87	0.814	0.862	0.867	0.898	**0.992**	0.846	0.811	0.86	0.865	0.89
(0,0,0,1,1,1)	1.843	0.855	0.769	0.865	0.871	0.896	**0.994**	0.836	0.765	0.86	0.866	0.89
(0,0,0,0,1,1)	1.879	0.836	0.69	0.862	0.871	0.894	**0.995**	0.821	0.687	0.857	0.866	0.887
(0,0,0,0,0,1)	1.956	0.806	0.579	0.85	0.867	0.886	**0.997**	0.796	0.576	0.845	0.862	0.881
Min.		**0.806**	0.579	**0.85**	**0.867**	**0.886**	**0.953**	**0.796**	0.576	**0.845**	0.862	**0.881**
Average		0.859	0.752	0.863	0.870	0.897	0.987	0.836	0.748	0.859	0.866	0.891

Tables 104: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{p \times p}$, $r_{ij} = -.1$ for $i \neq j$ and inverted V-shaped covariance structure at a = 5 with p = 6 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.05	0.049	0.051	0.05	0.049	0.051	0.05	0.05	0.051	0.051	0.052
(1,1,1,1,1,1)	0.528	**0.889**	0.691	0.823	**0.824**	**0.882**	0.712	**0.886**	0.693	0.824	0.824	**0.884**
(0,1,1,1,1,1)	0.779	**0.881**	0.738	0.828	**0.83**	**0.882**	0.83	0.876	0.739	0.829	0.832	**0.883**
(0,0,1,1,1,1)	0.813	0.867	0.705	0.826	0.83	0.879	0.851	0.86	0.704	0.827	0.831	0.879
(0,0,0,1,1,1)	0.829	0.857	0.653	0.821	0.828	0.873	0.865	0.851	0.652	0.822	0.829	0.874
(0,0,0,0,1,1)	0.846	0.846	0.586	0.817	0.827	0.868	0.879	0.842	0.585	0.818	0.829	0.863
(0,0,0,0,0,1)	0.88	0.828	0.51	0.806	0.823	0.861	0.902	0.834	0.51	0.805	0.825	0.855
Min.		**0.828**	0.51	**0.806**	0.823	0.861	**0.712**	**0.834**	0.51	**0.805**	0.824	0.855
Average		0.861	0.647	0.820	0.827	0.874	0.840	0.858	0.647	0.821	0.828	0.873

Tables 105: Numerical comparisons for power of the tests when correlation matrix R = $[r_{ij}]_{p\times p}$, r_{ij} = -.1 for i ≠j and inverted V-shaped covariance structure at a = 5 with p = 6 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.052	0.049	0.05	0.05	0.051	0.051	0.051	0.05	0.051	0.051	0.052
(1,1,1,1,1,1)	0.198	**0.883**	0.644	0.78	0.801	0.858	0.61	**0.885**	0.646	0.799	0.804	0.86
(0,1,1,1,1,1)	0.292	**0.87**	0.686	0.8	0.803	0.855	0.737	**0.876**	0.687	0.799	0.803	0.857
(0,0,1,1,1,1)	0.305	0.861	0.65	0.793	0.798	0.848	0.761	0.86	0.649	0.792	0.799	0.85
(0,0,0,1,1,1)	0.311	0.853	0.598	0.787	0.793	0.84	0.774	0.855	0.599	0.785	0.795	0.844
(0,0,0,0,1,1)	0.317	0.846	0.536	0.777	0.788	0.831	0.788	0.841	0.538	0.78	0.792	0.834
(0,0,0,0,0,1)	0.33	0.829	0.472	0.763	0.781	0.817	0.819	0.831	0.473	0.765	0.782	0.819
Min.		0.829	0.472	**0.763**	**0.781**	**0.817**	0.61	0.831	0.473	**0.765**	0.782	**0.819**
Average		0.857	0.598	0.783	0.794	0.842	0.748	0.858	0.599	0.787	0.796	0.844

Table 106: Numerical comparisons for power of the tests when correlation matrix R = $[r_{ij}]_{p\times p}$, r_{12} = r_{14} = r_{25} = r_{26} = r_{35} = r_{36} = r_{45} = r_{46} = -.4 and the rest of r_{ij} for i ≠j r_{ij} = .4 and inverted V-shaped covariance structure at a = 5 with p = 6 and n = 10

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.053	0.051	0.049	0.051	0.052	0.048	0.051	0.051	0.049	0.051	0.052
(1,1,1,1,1,1)	0.612	0.838	0.637	0.873	0.857	0.901	0.418	0.826	0.635	0.869	0.854	0.899
(0,1,1,1,1,1)	0.807	0.82	0.653	0.559	0.824	0.641	0.459	0.812	0.648	0.554	0.817	0.632
(0,0,1,1,1,1)	0.733	0.799	0.596	0.447	0.792	0.577	0.379	0.794	0.594	0.444	0.789	0.568
(0,0,0,1,1,1)	0.865	0.802	0.579	0.518	0.805	0.642	0.508	0.794	0.576	0.515	0.801	0.632
(0,0,0,0,1,1)	0.817	0.792	0.53	0.453	0.785	0.604	0.452	0.786	0.527	0.449	0.78	0.596
(0,0,0,0,0,1)	0.914	0.772	0.487	0.471	0.772	0.651	0.548	0.768	0.485	0.468	0.767	0.644
Min.		0.772	0.487	0.447	0.772	0.577	0.379	0.768	0.485	0.444	0.767	0.568
Average		0.804	0.580	0.554	0.806	0.669	0.461	0.797	0.578	0.550	0.801	0.662

Table 107: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{p \times p}$, $r_{12} = r_{14} = r_{25} = r_{26} = r_{35} = r_{36} = r_{45} = r_{46} = -.4$ and the rest of r_{ij} for $i \neq j$ $r_{ij} = .4$ and inverted V-shaped covariance structure at a = 5 with p = 6 and n = 20

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.047	0.046	0.047	0.047	0.046	0.051	0.05	0.048	0.047	0.048	0.048
(1,1,1,1,1,1)	0.275	0.83	0.534	0.81	**0.753**	**0.861**	0.238	0.828	0.537	0.816	0.754	0.862
(0,1,1,1,1,1)	0.363	0.819	0.554	0.552	0.715	0.567	0.256	0.821	0.555	0.554	0.715	0.565
(0,0,1,1,1,1)	0.33	0.808	0.514	0.466	0.675	0.5	0.205	0.803	0.514	0.466	0.677	0.499
(0,0,0,1,1,1)	0.389	0.81	0.502	0.519	0.692	0.558	0.266	0.81	0.503	0.519	0.694	0.559
(0,0,0,0,1,1)	0.368	0.802	0.471	0.469	0.667	0.519	0.239	0.803	0.471	0.469	0.668	0.519
(0,0,0,0,0,1)	0.411	0.79	0.449	0.476	0.661	0.564	0.286	0.793	0.45	0.475	0.66	0.564
Min.		0.79	0.449	0.466	0.661	0.5	0.205	0.793	0.45	0.466	0.66	0.499
Average		0.810	0.504	0.549	0.694	0.595	0.248	0.810	0.505	0.550	0.695	0.595

Table 108: Numerical comparisons for power of the tests when correlation matrix $R = [r_{ij}]_{p \times p}$, $r_{12} = r_{14} = r_{25} = r_{26} = r_{35} = r_{36} = r_{45} = r_{46} = -.4$ and the rest of r_{ij} for $i \neq j$ $r_{ij} = .4$ and inverted V-shaped covariance structure at a = 5 with p = 6 and n = 100

Direct	c	Perl	Foll	ONew	New	Tang	BS	BSP	BSF	OBSN	BSN	BST
(0,0,0,0,0,0)	0	0.051	0.051	0.05	0.051	0.05	0.048	0.054	0.052	0.051	0.052	0.052
(1,1,1,1,1,1)	0.103	0.82	0.509	0.776	0.711	0.826	0.194	0.83	0.51	0.778	0.709	0.827
(0,1,1,1,1,1)	0.136	0.813	0.517	0.533	0.662	0.514	0.209	0.822	0.518	0.535	0.664	0.516
(0,0,1,1,1,1)	0.124	0.805	0.483	0.459	0.622	0.448	0.173	0.804	0.484	0.46	0.624	0.45
(0,0,0,1,1,1)	0.146	0.806	0.472	0.501	0.638	0.507	0.222	0.806	0.473	0.503	0.641	0.507
(0,0,0,0,1,1)	0.138	0.799	0.447	0.457	0.613	0.466	0.196	0.802	0.448	0.459	0.616	0.467
(0,0,0,0,0,1)	0.154	0.79	0.425	0.461	0.605	0.506	0.234	0.799	0.426	0.463	0.605	0.507
Min.		0.79	0.425	0.457	0.605	0.448	0.173	0.799	0.426	0.459	0.605	0.45
Average		0.806	0.476	0.531	0.642	0.545	0.205	0.811	0.477	0.533	0.643	0.546

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Output จากโครงการวิจัยที่ได้รับทุนจาก สกว.

เนื่องจากผลงานวิจัยชิ้นนี้เป็นผลงานวิจัยชิ้นแรกที่ได้รับทุนจาก สกว. ดังนั้นผู้วิจัยจึงยังไม่มีผลงานวิจัยภายใต้ทุน สกว. ลงตีพิมพ์ในวารสารวิชาการนานาชาติ เลย แต่ผู้วิจัยได้เคยตีพิมพ์ผลงานวิจัยในวารสารวิชาการนานาชาติ ชื่อ The Journal of statistics planning and inference on special issue on inference under inequality constraints ภายใต้ชื่อเรื่อง " Powers of some one-sided multivariate tests with the population covariance matrix known up to a multiplicative constant 2002 " สำหรับงานวิจัยชิ้นนี้ก็เช่นกัน ผู้วิจัยคาดว่าจะนำผลงานวิจัยชิ้นนี้ลงตีพิมพ์ในวารสารเดียวกัน โดยที่ manuscript จะประกอบด้วยเนื้อหางานวิจัยทั้งหมดในรายงานฉบับนี้