

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 10;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(6, 1)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.6415	0.9942	0.6389	0.9907	0.3611	0.0093	0.0058	0.3585	1.02	0.84	0.44
SCAD	0.9682	0.8190	0.1289	0.9994	0.8711	0.0006	0.1810	0.0318	1.02	10.78	0.08
LASSO	1.0000	0.3522	0.0283	1.0000	0.9717	0.0000	0.6478	0.0000	1.02	36.00	0.00
LARS	1.0000	0.3522	0.0283	1.0000	0.9717	0.0000	0.6478	0.0000	1.02	36.00	0.00
GSDS	0.6642	0.9989	0.9107	0.9911	0.0893	0.0089	0.0011	0.3358	1.02	0.60	0.67
GSR2-r	0.6273	0.9797	0.4139	0.9911	0.5861	0.0089	0.0203	0.3727	1.02	1.64	0.31
GSR2	0.5970	0.9785	0.3915	0.9902	0.6085	0.0098	0.0215	0.4030	1.02	1.66	0.27
FOR	0.9818	0.3705	0.0289	0.9995	0.9711	0.0005	0.6295	0.0182	1.02	35.00	0.00
SWCV	0.9818	0.6395	0.0665	0.9998	0.9335	0.0002	0.3605	0.0182	1.02	20.48	0.00

No. factors = 10;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(6, 1)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.5161	0.9970	0.8571	0.9816	0.1429	0.0184	0.0030	0.4839	0.36	0.21	0.80
SCAD	0.9355	0.8261	0.1892	0.9978	0.8108	0.0023	0.1739	0.0645	0.36	2.01	0.26
LASSO	1.0000	0.3543	0.0540	1.0000	0.9460	0.0000	0.6457	0.0000	0.36	6.58	0.00
LARS	1.0000	0.3494	0.0553	1.0000	0.9447	0.0000	0.6506	0.0000	0.36	6.64	0.00
GSDS	0.7258	0.9980	0.9259	0.9884	0.0741	0.0116	0.0020	0.2742	0.36	0.27	0.87
GSR2-r	0.7097	0.9064	0.2806	0.9866	0.7194	0.0134	0.0936	0.2903	0.36	1.15	0.42
GSR2	0.6613	0.9031	0.2698	0.9849	0.7302	0.0151	0.0969	0.3387	0.36	1.17	0.39
FOR	0.9677	0.3825	0.0546	0.9975	0.9454	0.0025	0.6175	0.0323	0.36	6.30	0.00
SWCV	0.9677	0.6306	0.1022	0.9989	0.8978	0.0011	0.3694	0.0323	0.36	3.92	0.07

No. factors = 10;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(6, 1)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.5957	0.9935	0.5585	0.9928	0.4415	0.0072	0.0065	0.4043	0.66	0.63	0.53
SCAD	0.9894	0.8173	0.1082	0.9997	0.8918	0.0003	0.1827	0.0106	0.66	8.77	0.08
LASSO	1.0000	0.3515	0.0225	1.0000	0.9775	0.0000	0.6485	0.0000	0.66	29.42	0.00
LARS	1.0000	0.3529	0.0225	1.0000	0.9775	0.0000	0.6471	0.0000	0.66	29.36	0.00
GSDS	0.5142	0.9991	0.8750	0.9917	0.1250	0.0083	0.0009	0.4858	0.66	0.33	0.70
GSR2-r	0.5461	0.9960	0.6522	0.9922	0.3478	0.0078	0.0040	0.4539	0.66	0.49	0.59
GSR2	0.5142	0.9953	0.6000	0.9915	0.4000	0.0085	0.0047	0.4858	0.66	0.49	0.57
FOR	1.0000	0.3678	0.0232	1.0000	0.9768	0.0000	0.6322	0.0000	0.66	28.70	0.00
SWCV	1.0000	0.6415	0.0602	1.0000	0.9398	0.0000	0.3585	0.0000	0.66	16.56	0.00

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 10;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(12, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.6784	0.9953	0.6892	0.9894	0.3108	0.0106	0.0047	0.3216	1.09	0.78	0.52
SCAD	1.0000	0.8375	0.1545	1.0000	0.8455	0.0000	0.1625	0.0000	1.09	9.86	0.14
LASSO	1.0000	0.3527	0.0303	1.0000	0.9697	0.0000	0.6473	0.0000	1.09	36.00	0.00
LARS	1.0000	0.3527	0.0303	1.0000	0.9697	0.0000	0.6473	0.0000	1.09	36.00	0.00
GSDS	0.6899	0.9993	0.9273	0.9898	0.0727	0.0102	0.0007	0.3101	1.09	0.58	0.71
GSR2-r	0.8141	0.9788	0.5032	0.9932	0.4968	0.0068	0.0212	0.1859	1.09	1.88	0.40
GSR2	0.7830	0.9766	0.4623	0.9923	0.5377	0.0077	0.0234	0.2170	1.09	1.95	0.35
FOR	1.0000	0.3713	0.0311	1.0000	0.9689	0.0000	0.6287	0.0000	1.09	35.00	0.00
SWCV	1.0000	0.6847	0.1041	1.0000	0.8959	0.0000	0.3153	0.0000	1.09	18.16	0.00

No. factors = 10;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(12, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.5658	0.9920	0.7333	0.9749	0.2667	0.0251	0.0080	0.4342	0.47	0.30	0.75
SCAD	1.0000	0.8181	0.2552	1.0000	0.7448	0.0000	0.1819	0.0000	0.47	2.19	0.34
LASSO	1.0000	0.3751	0.0756	1.0000	0.9244	0.0000	0.6249	0.0000	0.47	6.45	0.00
LARS	1.0000	0.3688	0.0787	1.0000	0.9213	0.0000	0.6312	0.0000	0.47	6.53	0.01
GSDS	0.7434	1.0000	1.0000	0.9824	0.0000	0.0176	0.0000	0.2566	0.47	0.30	0.89
GSR2-r	0.9254	0.9067	0.4041	0.9926	0.5959	0.0074	0.0933	0.0746	0.47	1.32	0.46
GSR2	0.8794	0.8984	0.3706	0.9895	0.6294	0.0105	0.1016	0.1206	0.47	1.37	0.42
FOR	1.0000	0.3407	0.0689	1.0000	0.9311	0.0000	0.6593	0.0000	0.47	6.75	0.00
SWCV	1.0000	0.6648	0.1726	1.0000	0.8274	0.0000	0.3352	0.0000	0.47	3.68	0.13

No. factors = 10;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(12, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.5702	0.9960	0.6522	0.9928	0.3478	0.0072	0.0040	0.4298	0.62	0.48	0.61
SCAD	1.0000	0.8413	0.1300	1.0000	0.8700	0.0000	0.1587	0.0000	0.62	7.67	0.15
LASSO	1.0000	0.3483	0.0211	1.0000	0.9789	0.0000	0.6517	0.0000	0.62	29.55	0.00
LARS	1.0000	0.3501	0.0210	1.0000	0.9790	0.0000	0.6499	0.0000	0.62	29.47	0.00
GSDS	0.4890	0.9991	0.8571	0.9915	0.1429	0.0085	0.0009	0.5110	0.62	0.28	0.72
GSR2-r	0.6491	0.9947	0.5769	0.9933	0.4231	0.0067	0.0053	0.3509	0.62	0.56	0.59
GSR2	0.6096	0.9938	0.5577	0.9928	0.4423	0.0072	0.0062	0.3904	0.62	0.58	0.56
FOR	1.0000	0.3776	0.0220	1.0000	0.9780	0.0000	0.6224	0.0000	0.62	28.25	0.00
SWCV	1.0000	0.6888	0.0844	1.0000	0.9156	0.0000	0.3112	0.0000	0.62	14.48	0.00

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 10;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.9641	0.9962	0.7763	0.9984	0.2237	0.0016	0.0038	0.0359	1.54	1.67	0.75
SCAD	1.0000	0.8685	0.2834	1.0000	0.7166	0.0000	0.1315	0.0000	1.54	8.65	0.18
LASSO	1.0000	0.3559	0.0428	1.0000	0.9572	0.0000	0.6441	0.0000	1.54	36.00	0.00
LARS	1.0000	0.3559	0.0428	1.0000	0.9572	0.0000	0.6441	0.0000	1.54	36.00	0.00
GSDS	0.9429	0.9989	0.9077	0.9977	0.0923	0.0023	0.0011	0.0571	1.54	1.48	0.83
GSR2-r	0.7356	0.9786	0.5043	0.9867	0.4957	0.0133	0.0214	0.2644	1.54	1.99	0.31
GSR2	0.7356	0.9784	0.4979	0.9867	0.5021	0.0133	0.0216	0.2644	1.54	2.00	0.30
FOR	1.0000	0.3747	0.0440	1.0000	0.9560	0.0000	0.6253	0.0000	1.54	35.00	0.00
SWCV	1.0000	0.7136	0.1883	1.0000	0.8117	0.0000	0.2864	0.0000	1.54	17.07	0.02

No. factors = 10;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.9397	0.9970	0.9375	0.9956	0.0625	0.0044	0.0030	0.0603	0.65	0.64	0.93
SCAD	1.0000	0.8625	0.4208	1.0000	0.5792	0.0000	0.1375	0.0000	0.65	1.96	0.42
LASSO	1.0000	0.3443	0.0957	1.0000	0.9043	0.0000	0.6557	0.0000	0.65	6.79	0.00
LARS	1.0000	0.3393	0.0978	1.0000	0.9022	0.0000	0.6607	0.0000	0.65	6.85	0.00
GSDS	1.0000	0.9990	0.9792	1.0000	0.0208	0.0000	0.0010	0.0000	0.65	0.66	0.99
GSR2-r	0.8599	0.9031	0.4103	0.9818	0.5897	0.0183	0.0969	0.1401	0.65	1.42	0.38
GSR2	0.8599	0.9021	0.4051	0.9818	0.5949	0.0183	0.0979	0.1401	0.65	1.43	0.37
FOR	1.0000	0.3660	0.1008	1.0000	0.8992	0.0000	0.6340	0.0000	0.65	6.59	0.00
SWCV	1.0000	0.7041	0.3045	1.0000	0.6955	0.0000	0.2959	0.0000	0.65	3.52	0.19

No. factors = 10;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.9719	0.9960	0.7667	0.9990	0.2333	0.0010	0.0040	0.0281	0.89	1.03	0.82
SCAD	1.0000	0.8695	0.2323	1.0000	0.7677	0.0000	0.1305	0.0000	0.89	6.69	0.21
LASSO	1.0000	0.3584	0.0307	1.0000	0.9693	0.0000	0.6416	0.0000	0.89	29.21	0.00
LARS	1.0000	0.3597	0.0306	1.0000	0.9694	0.0000	0.6403	0.0000	0.89	29.15	0.00
GSDS	0.8804	0.9989	0.8980	0.9972	0.1020	0.0028	0.0011	0.1196	0.89	0.82	0.84
GSR2-r	0.5453	0.9951	0.6182	0.9879	0.3818	0.0121	0.0049	0.4547	0.89	0.57	0.52
GSR2	0.5453	0.9951	0.6415	0.9879	0.3585	0.0121	0.0049	0.4547	0.89	0.57	0.54
FOR	1.0000	0.3765	0.0314	1.0000	0.9686	0.0000	0.6235	0.0000	0.89	28.41	0.00
SWCV	1.0000	0.7156	0.1552	1.0000	0.8448	0.0000	0.2844	0.0000	0.89	13.55	0.04

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 10;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 16)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.8155	0.9896	0.5033	0.9937	0.4967	0.0063	0.0104	0.1845	1.24	1.48	0.32
SCAD	0.9869	0.8263	0.1343	0.9988	0.8657	0.0012	0.1737	0.0131	1.24	10.55	0.08
LASSO	1.0000	0.3538	0.0344	1.0000	0.9656	0.0000	0.6462	0.0000	1.24	36.00	0.00
LARS	1.0000	0.3538	0.0344	1.0000	0.9656	0.0000	0.6462	0.0000	1.24	36.00	0.00
GSDS	0.8031	0.9887	0.4900	0.9936	0.5100	0.0064	0.0113	0.1969	1.24	1.52	0.32
GSR2-r	0.5801	0.9801	0.4792	0.9878	0.5208	0.0122	0.0199	0.4199	1.24	1.66	0.35
GSR2	0.5801	0.9797	0.4688	0.9879	0.5312	0.0121	0.0203	0.4199	1.24	1.69	0.34
FOR	1.0000	0.3724	0.0354	1.0000	0.9646	0.0000	0.6276	0.0000	1.24	35.00	0.00
SWCV	0.9935	0.6220	0.0749	0.9995	0.9251	0.0005	0.3780	0.0065	1.24	21.54	0.00

No. factors = 10;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 16)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.7593	0.9920	0.8182	0.9844	0.1818	0.0156	0.0080	0.2407	0.54	0.47	0.79
SCAD	0.9778	0.8213	0.2922	0.9980	0.7078	0.0020	0.1787	0.0222	0.54	2.22	0.28
LASSO	1.0000	0.3561	0.0812	1.0000	0.9188	0.0000	0.6439	0.0000	0.54	6.63	0.00
LARS	1.0000	0.3757	0.0854	1.0000	0.9146	0.0000	0.6243	0.0000	0.54	6.46	0.00
GSDS	0.9704	0.9860	0.7759	0.9965	0.2241	0.0035	0.0140	0.0296	0.54	0.65	0.84
GSR2-r	0.7333	0.9161	0.4062	0.9796	0.5938	0.0204	0.0839	0.2667	0.54	1.16	0.44
GSR2	0.7111	0.9131	0.3906	0.9786	0.6094	0.0214	0.0869	0.2889	0.54	1.18	0.42
FOR	1.0000	0.3503	0.0816	1.0000	0.9184	0.0000	0.6497	0.0000	0.54	6.69	0.00
SWCV	0.9889	0.6178	0.1797	0.9975	0.8203	0.0025	0.3822	0.0111	0.54	4.14	0.14

No. factors = 10;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 16)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.8171	0.9891	0.4578	0.9958	0.5422	0.0042	0.0109	0.1829	0.7	1.01	0.46
SCAD	0.9861	0.8274	0.1046	0.9990	0.8954	0.0010	0.1726	0.0139	0.7	8.33	0.08
LASSO	1.0000	0.3532	0.0241	1.0000	0.9759	0.0000	0.6468	0.0000	0.7	29.37	0.00
LARS	1.0000	0.3493	0.0239	1.0000	0.9761	0.0000	0.6507	0.0000	0.7	29.54	0.00
GSDS	0.6466	0.9893	0.4156	0.9930	0.5844	0.0070	0.0107	0.3534	0.7	0.87	0.38
GSR2-r	0.4451	0.9940	0.5000	0.9895	0.5000	0.0105	0.0060	0.5549	0.7	0.50	0.52
GSR2	0.4695	0.9942	0.5217	0.9899	0.4783	0.0101	0.0058	0.5305	0.7	0.51	0.54
FOR	1.0000	0.3772	0.0250	1.0000	0.9750	0.0000	0.6228	0.0000	0.7	28.31	0.00
SWCV	1.0000	0.6230	0.0539	1.0000	0.9461	0.0000	0.3770	0.0000	0.7	17.40	0.00

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 10;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(6, 1)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.3278	0.9991	0.9588	0.9336	0.0412	0.0664	0.0009	0.6722	4.68	1.16	0.09
SCAD	0.9593	0.7301	0.3067	0.9928	0.6933	0.0072	0.2699	0.0407	4.68	18.06	0.03
LASSO	0.9929	0.3776	0.1281	0.9963	0.8719	0.0037	0.6224	0.0071	4.68	36.00	0.00
LARS	0.9977	0.3785	0.1292	0.9984	0.8708	0.0016	0.6215	0.0023	4.68	36.00	0.00
GSDS	0.3349	0.9998	0.9895	0.9335	0.0105	0.0665	0.0002	0.6651	4.68	1.11	0.13
GSR2-r	0.6867	0.9775	0.7249	0.9604	0.2751	0.0396	0.0225	0.3133	4.68	3.80	0.09
GSR2	0.6727	0.9780	0.7223	0.9587	0.2777	0.0413	0.0220	0.3273	4.68	3.67	0.10
FOR	0.9820	0.3963	0.1300	0.9935	0.8700	0.0065	0.6037	0.0180	4.68	35.00	0.00
SWCV	0.9528	0.7102	0.3042	0.9913	0.6958	0.0087	0.2898	0.0472	4.68	18.99	0.00

No. factors = 10;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(6, 1)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.3420	0.9990	0.9818	0.8344	0.0182	0.1656	0.0010	0.6580	2.17	0.60	0.21
SCAD	0.9554	0.7402	0.5398	0.9782	0.4602	0.0218	0.2598	0.0446	2.17	4.11	0.17
LASSO	0.9929	0.3656	0.3046	0.9916	0.6954	0.0084	0.6344	0.0071	2.17	7.15	0.01
LARS	0.9978	0.3748	0.3089	0.9980	0.6911	0.0020	0.6252	0.0022	2.17	7.10	0.01
GSDS	0.3565	1.0000	1.0000	0.8372	0.0000	0.1628	0.0000	0.6435	2.17	0.63	0.20
GSR2-r	0.8413	0.8698	0.6370	0.9313	0.3630	0.0687	0.1302	0.1587	2.17	2.72	0.17
GSR2	0.8051	0.8704	0.6247	0.9193	0.3753	0.0807	0.1296	0.1949	2.17	2.60	0.16
FOR	0.9891	0.3798	0.3045	0.9899	0.6955	0.0101	0.6202	0.0109	2.17	7.02	0.00
SWCV	0.9545	0.7183	0.5551	0.9761	0.4449	0.0239	0.2817	0.0455	2.17	4.26	0.18

No. factors = 10;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(6, 1)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.2665	0.9991	0.9412	0.9552	0.0588	0.0448	0.0009	0.7335	2.51	0.56	0.22
SCAD	0.9557	0.7284	0.2269	0.9953	0.7731	0.0047	0.2716	0.0443	2.51	13.95	0.04
LASSO	0.9901	0.3803	0.0862	0.9975	0.9138	0.0025	0.6197	0.0099	2.51	28.85	0.00
LARS	0.9976	0.3796	0.0867	0.9988	0.9133	0.0012	0.6204	0.0024	2.51	28.90	0.00
GSDS	0.2380	0.9998	0.9787	0.9541	0.0213	0.0459	0.0002	0.7620	2.51	0.48	0.22
GSR2-r	0.5112	0.9978	0.9038	0.9652	0.0962	0.0348	0.0022	0.4888	2.51	1.08	0.33
GSR2	0.5223	0.9982	0.9103	0.9654	0.0897	0.0346	0.0018	0.4777	2.51	1.07	0.36
FOR	0.9752	0.3993	0.0867	0.9942	0.9133	0.0058	0.6007	0.0248	2.51	27.98	0.00
SWCV	0.9429	0.7089	0.2354	0.9938	0.7646	0.0062	0.2911	0.0571	2.51	14.73	0.00

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 10;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(12, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.3328	0.9989	0.9479	0.9350	0.0521	0.0650	0.0011	0.6672	4.59	1.15	0.11
SCAD	0.9785	0.7960	0.3967	0.9947	0.6033	0.0053	0.2040	0.0215	4.59	14.70	0.07
LASSO	0.9978	0.3778	0.1269	0.9989	0.8731	0.0011	0.6222	0.0022	4.59	36.00	0.00
LARS	0.9991	0.3780	0.1272	0.9995	0.8728	0.0005	0.6220	0.0009	4.59	36.00	0.00
GSDS	0.3305	0.9998	0.9892	0.9350	0.0108	0.0650	0.0002	0.6695	4.59	1.10	0.15
GSR2-r	0.6923	0.9784	0.7335	0.9611	0.2665	0.0389	0.0216	0.3077	4.59	3.68	0.12
GSR2	0.6892	0.9783	0.7394	0.9611	0.2606	0.0389	0.0217	0.3108	4.59	3.69	0.11
FOR	0.9888	0.3956	0.1280	0.9945	0.8720	0.0055	0.6044	0.0112	4.59	35.00	0.00
SWCV	0.9799	0.7423	0.3424	0.9943	0.6576	0.0057	0.2577	0.0201	4.59	17.43	0.02

No. factors = 10;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(12, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.3337	0.9970	0.9483	0.8305	0.0517	0.1695	0.0030	0.6663	2.19	0.61	0.19
SCAD	0.9761	0.8021	0.6190	0.9863	0.3810	0.0137	0.1979	0.0239	2.19	3.70	0.32
LASSO	1.0000	0.3659	0.3047	1.0000	0.6953	0.0000	0.6341	0.0000	2.19	7.12	0.00
LARS	1.0000	0.3799	0.3105	1.0000	0.6895	0.0000	0.6201	0.0000	2.19	7.04	0.00
GSDS	0.4136	0.9990	0.9853	0.8433	0.0147	0.1567	0.0010	0.5864	2.19	0.74	0.25
GSR2-r	0.8237	0.8728	0.6420	0.9259	0.3580	0.0741	0.1272	0.1763	2.19	2.65	0.18
GSR2	0.8223	0.8741	0.6488	0.9254	0.3512	0.0746	0.1259	0.1777	2.19	2.64	0.16
FOR	0.9902	0.3873	0.3113	0.9848	0.6887	0.0152	0.6127	0.0098	2.19	6.93	0.00
SWCV	0.9793	0.7461	0.5945	0.9860	0.4055	0.0140	0.2539	0.0207	2.19	4.15	0.30

No. factors = 10;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(12, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.2635	0.9993	0.9388	0.9574	0.0612	0.0426	0.0007	0.7365	2.4	0.54	0.25
SCAD	0.9753	0.7953	0.3056	0.9966	0.6944	0.0034	0.2047	0.0247	2.4	11.00	0.09
LASSO	0.9950	0.3791	0.0833	0.9989	0.9167	0.0011	0.6209	0.0050	2.4	28.88	0.00
LARS	0.9984	0.3773	0.0830	0.9994	0.9170	0.0006	0.6227	0.0016	2.4	28.96	0.00
GSDS	0.1806	1.0000	1.0000	0.9542	0.0000	0.0458	0.0000	0.8194	2.4	0.36	0.25
GSR2-r	0.5347	0.9984	0.9306	0.9674	0.0694	0.0326	0.0016	0.4653	2.4	1.03	0.43
GSR2	0.5286	0.9982	0.9178	0.9675	0.0822	0.0325	0.0018	0.4714	2.4	1.05	0.42
FOR	0.9842	0.3967	0.0835	0.9960	0.9165	0.0040	0.6033	0.0158	2.4	28.07	0.00
SWCV	0.9742	0.7417	0.2535	0.9958	0.7465	0.0042	0.2583	0.0258	2.4	13.28	0.03

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 10;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.9035	0.9982	0.9259	0.9900	0.0741	0.0100	0.0018	0.0965	4.09	3.67	0.65
SCAD	0.9939	0.8300	0.4887	0.9972	0.5113	0.0028	0.1700	0.0061	4.09	12.86	0.26
LASSO	1.0000	0.3746	0.1136	1.0000	0.8864	0.0000	0.6254	0.0000	4.09	36.00	0.00
LARS	1.0000	0.3746	0.1136	1.0000	0.8864	0.0000	0.6254	0.0000	4.09	36.00	0.00
GSDS	0.9473	0.9998	0.9884	0.9946	0.0116	0.0054	0.0002	0.0527	4.09	3.83	0.84
GSR2-r	0.7349	0.9695	0.6430	0.9686	0.3570	0.0314	0.0305	0.2651	4.09	4.06	0.11
GSR2	0.7295	0.9718	0.6591	0.9677	0.3409	0.0323	0.0282	0.2705	4.09	3.87	0.13
FOR	0.9947	0.3930	0.1152	0.9970	0.8848	0.0030	0.6070	0.0053	4.09	34.99	0.00
SWCV	0.9913	0.8356	0.4299	0.9968	0.5701	0.0032	0.1644	0.0087	4.09	12.51	0.09

No. factors = 10;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.9014	1.0000	1.0000	0.9725	0.0000	0.0275	0.0000	0.0986	1.91	1.67	0.83
SCAD	0.9955	0.8286	0.6404	0.9933	0.3596	0.0067	0.1714	0.0045	1.91	3.36	0.47
LASSO	1.0000	0.3861	0.2776	1.0000	0.7224	0.0000	0.6139	0.0000	1.91	6.93	0.00
LARS	1.0000	0.3879	0.2775	1.0000	0.7225	0.0000	0.6121	0.0000	1.91	6.92	0.00
GSDS	0.9939	0.9990	0.9880	0.9989	0.0120	0.0011	0.0010	0.0061	1.91	1.91	0.98
GSR2-r	0.8209	0.8401	0.5361	0.9352	0.4639	0.0648	0.1599	0.1791	1.91	2.78	0.14
GSR2	0.8022	0.8479	0.5463	0.9291	0.4537	0.0709	0.1521	0.1978	1.91	2.64	0.17
FOR	0.9955	0.3832	0.2753	0.9914	0.7247	0.0086	0.6168	0.0045	1.91	6.89	0.00
SWCV	0.9907	0.8309	0.6273	0.9912	0.3727	0.0088	0.1691	0.0093	1.91	3.29	0.41

No. factors = 10;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.9025	0.9979	0.9187	0.9936	0.0813	0.0064	0.0021	0.0975	2.18	2.00	0.77
SCAD	0.9917	0.8301	0.4119	0.9977	0.5881	0.0023	0.1699	0.0083	2.18	9.50	0.26
LASSO	1.0000	0.3729	0.0756	1.0000	0.9244	0.0000	0.6271	0.0000	2.18	29.07	0.00
LARS	1.0000	0.3725	0.0751	1.0000	0.9249	0.0000	0.6275	0.0000	2.18	29.08	0.00
GSDS	0.9125	1.0000	1.0000	0.9939	0.0000	0.0061	0.0000	0.0875	2.18	1.92	0.86
GSR2-r	0.6405	0.9951	0.8537	0.9746	0.1463	0.0254	0.0049	0.3595	2.18	1.28	0.46
GSR2	0.6435	0.9964	0.8649	0.9749	0.1351	0.0251	0.0036	0.3565	2.18	1.23	0.52
FOR	0.9931	0.3947	0.0771	0.9977	0.9229	0.0023	0.6053	0.0069	2.18	28.10	0.00
SWCV	0.9902	0.8362	0.3530	0.9976	0.6470	0.0024	0.1638	0.0098	2.18	9.22	0.10

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 10;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 16)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.6155	0.9976	0.9033	0.9556	0.0967	0.0444	0.0024	0.3845	4.71	2.51	0.27
SCAD	0.9268	0.7259	0.2986	0.9821	0.7014	0.0179	0.2741	0.0732	4.71	17.90	0.02
LASSO	0.9963	0.3787	0.1297	0.9979	0.8703	0.0021	0.6213	0.0037	4.71	36.00	0.00
LARS	0.9973	0.3789	0.1300	0.9984	0.8700	0.0016	0.6211	0.0027	4.71	36.00	0.00
GSDS	0.7177	0.9984	0.9200	0.9711	0.0800	0.0289	0.0016	0.2823	4.71	3.31	0.33
GSR2-r	0.6521	0.9757	0.7129	0.9554	0.2871	0.0446	0.0243	0.3479	4.71	3.65	0.09
GSR2	0.6517	0.9748	0.7097	0.9561	0.2903	0.0439	0.0252	0.3483	4.71	3.73	0.10
FOR	0.9743	0.3943	0.1280	0.9885	0.8720	0.0115	0.6057	0.0257	4.71	35.00	0.00
SWCV	0.9363	0.6678	0.2607	0.9836	0.7393	0.0164	0.3322	0.0637	4.71	20.87	0.01

No. factors = 10;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 16)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.6086	0.9990	0.9870	0.8915	0.0130	0.1085	0.0010	0.3914	2.04	1.07	0.48
SCAD	0.9163	0.7197	0.4763	0.9586	0.5237	0.0414	0.2803	0.0837	2.04	4.01	0.16
LASSO	0.9900	0.3693	0.2850	0.9907	0.7150	0.0093	0.6307	0.0100	2.04	7.05	0.00
LARS	0.9928	0.3747	0.2875	0.9924	0.7125	0.0076	0.6253	0.0072	2.04	7.03	0.00
GSDS	0.8999	0.9970	0.9674	0.9671	0.0326	0.0329	0.0030	0.1001	2.04	1.80	0.81
GSR2-r	0.7967	0.8616	0.6034	0.9189	0.3966	0.0811	0.1384	0.2033	2.04	2.55	0.17
GSR2	0.7821	0.8573	0.5936	0.9162	0.4064	0.0838	0.1427	0.2179	2.04	2.56	0.18
FOR	0.9608	0.3642	0.2746	0.9669	0.7254	0.0331	0.6358	0.0392	2.04	6.97	0.00
SWCV	0.9201	0.6616	0.4620	0.9553	0.5380	0.0447	0.3384	0.0799	2.04	4.47	0.14

No. factors = 10;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 16)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.6027	0.9974	0.8833	0.9692	0.1167	0.0308	0.0026	0.3973	2.67	1.44	0.44
SCAD	0.9221	0.7266	0.2370	0.9878	0.7630	0.0122	0.2734	0.0779	2.67	13.89	0.02
LASSO	1.0000	0.3805	0.0929	1.0000	0.9071	0.0000	0.6195	0.0000	2.67	28.95	0.00
LARS	1.0000	0.3802	0.0931	1.0000	0.9069	0.0000	0.6198	0.0000	2.67	28.97	0.00
GSDS	0.5631	0.9987	0.9315	0.9720	0.0685	0.0280	0.0013	0.4369	2.67	1.51	0.39
GSR2-r	0.5032	0.9976	0.9000	0.9619	0.1000	0.0381	0.0024	0.4968	2.67	1.10	0.34
GSR2	0.5200	0.9973	0.9145	0.9631	0.0855	0.0369	0.0027	0.4800	2.67	1.17	0.35
FOR	0.9797	0.3994	0.0919	0.9938	0.9081	0.0062	0.6006	0.0203	2.67	28.03	0.00
SWCV	0.9382	0.6685	0.2030	0.9895	0.7970	0.0105	0.3315	0.0618	2.67	16.40	0.01

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 15;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(6, 1)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.2792	0.9935	0.4337	0.9846	0.5663	0.0154	0.0065	0.7208	2.31	1.25	0.12
SCAD	0.5720	0.9277	0.2763	0.9913	0.7237	0.0087	0.0723	0.4280	2.31	9.87	0.17
LASSO	0.5972	0.4767	0.0224	0.9842	0.9776	0.0158	0.5233	0.4028	2.31	63.00	0.00
LARS	0.5972	0.4767	0.0224	0.9842	0.9776	0.0158	0.5233	0.4028	2.31	63.00	0.00
GSDS	0.2481	0.9995	0.8750	0.9851	0.1250	0.0149	0.0005	0.7519	2.31	0.59	0.31
GSR2-r	0.3191	0.9830	0.3544	0.9865	0.6456	0.0135	0.0170	0.6809	2.31	2.73	0.05
GSR2	0.3202	0.9847	0.3702	0.9864	0.6298	0.0136	0.0153	0.6798	2.31	2.53	0.09
FOR	0.5972	0.4787	0.0225	0.9843	0.9775	0.0157	0.5213	0.4028	2.31	62.77	0.00
SWCV	0.5953	0.8408	0.0973	0.9900	0.9027	0.0100	0.1592	0.4047	2.31	20.06	0.00

No. factors = 15;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(6, 1)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.3697	0.9807	0.4490	0.9692	0.5510	0.0308	0.0193	0.6303	0.67	0.50	0.47
SCAD	0.9727	0.8511	0.4515	0.9985	0.5485	0.0015	0.1489	0.0273	0.67	2.79	0.45
LASSO	1.0000	0.0000	0.0447	NaN	0.9553	NaN	1.0000	0.0000	0.67	15.00	0.00
LARS	1.0000	0.0000	0.0447	NaN	0.9553	NaN	1.0000	0.0000	0.67	15.00	0.00
GSDS	0.5364	0.9987	0.9429	0.9776	0.0571	0.0224	0.0013	0.4636	0.67	0.36	0.69
GSR2-r	0.5727	0.8966	0.2796	0.9780	0.7204	0.0220	0.1034	0.4273	0.67	1.88	0.20
GSR2	0.5818	0.9052	0.2936	0.9785	0.7064	0.0215	0.0948	0.4182	0.67	1.76	0.24
FOR	1.0000	0.0030	0.0450	1.0000	0.9550	0.0000	0.9970	0.0000	0.67	14.96	0.00
SWCV	1.0000	0.6840	0.1869	1.0000	0.8131	0.0000	0.3160	0.0000	0.67	5.15	0.08

No. factors = 15;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(6, 1)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.2038	0.9953	0.3712	0.9868	0.6288	0.0132	0.0047	0.7962	1.64	0.75	0.17
SCAD	0.4146	0.9384	0.2070	0.9904	0.7930	0.0096	0.0616	0.5854	1.64	7.08	0.19
LASSO	0.4365	0.5428	0.0154	0.9842	0.9846	0.0158	0.4572	0.5635	1.64	48.00	0.00
LARS	0.4365	0.5428	0.0154	0.9842	0.9846	0.0158	0.4572	0.5635	1.64	48.00	0.00
GSDS	0.1377	0.9996	0.8000	0.9862	0.2000	0.0138	0.0004	0.8623	1.64	0.23	0.32
GSR2-r	0.2296	0.9951	0.4328	0.9875	0.5672	0.0125	0.0049	0.7704	1.64	0.85	0.18
GSR2	0.2273	0.9958	0.4688	0.9874	0.5312	0.0126	0.0042	0.7727	1.64	0.77	0.21
FOR	0.4365	0.5446	0.0155	0.9842	0.9845	0.0158	0.4554	0.5635	1.64	47.81	0.00
SWCV	0.4331	0.8623	0.0699	0.9892	0.9301	0.0108	0.1377	0.5669	1.64	14.91	0.00

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 15;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(12, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.3765	0.9942	0.4777	0.9836	0.5223	0.0164	0.0058	0.6235	2.52	1.26	0.20
SCAD	0.6789	0.9235	0.2974	0.9912	0.7026	0.0088	0.0765	0.3211	2.52	10.58	0.16
LASSO	0.6789	0.4774	0.0254	0.9839	0.9746	0.0161	0.5226	0.3211	2.52	63.00	0.00
LARS	0.6789	0.4774	0.0254	0.9839	0.9746	0.0161	0.5226	0.3211	2.52	63.00	0.00
GSDS	0.2651	0.9997	0.9423	0.9833	0.0577	0.0167	0.0003	0.7349	2.52	0.56	0.33
GSR2-r	0.3606	0.9832	0.3671	0.9856	0.6329	0.0144	0.0168	0.6394	2.52	2.82	0.05
GSR2	0.3547	0.9834	0.3715	0.9852	0.6285	0.0148	0.0166	0.6453	2.52	2.75	0.04
FOR	0.6789	0.4787	0.0255	0.9839	0.9745	0.0161	0.5213	0.3211	2.52	62.84	0.00
SWCV	0.6789	0.8197	0.1042	0.9891	0.8958	0.0109	0.1803	0.3211	2.52	22.72	0.00

No. factors = 15;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(12, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.4303	0.9885	0.6585	0.9654	0.3415	0.0346	0.0115	0.5697	0.8	0.46	0.55
SCAD	1.0000	0.8576	0.4899	1.0000	0.5101	0.0000	0.1424	0.0000	0.8	2.81	0.48
LASSO	1.0000	0.0000	0.0533	NaN	0.9467	NaN	1.0000	0.0000	0.8	15.00	0.00
LARS	1.0000	0.0000	0.0533	NaN	0.9467	NaN	1.0000	0.0000	0.8	15.00	0.00
GSDS	0.4606	0.9993	0.9697	0.9672	0.0303	0.0328	0.0007	0.5394	0.8	0.33	0.64
GSR2-r	0.5909	0.8974	0.2882	0.9735	0.7118	0.0265	0.1026	0.4091	0.8	1.93	0.19
GSR2	0.5636	0.8985	0.2917	0.9714	0.7083	0.0286	0.1015	0.4364	0.8	1.89	0.16
FOR	1.0000	0.0020	0.0534	1.0000	0.9466	0.0000	0.9980	0.0000	0.8	14.97	0.00
SWCV	1.0000	0.6450	0.1888	1.0000	0.8112	0.0000	0.3550	0.0000	0.8	5.84	0.08

No. factors = 15;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(12, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.2747	0.9950	0.3725	0.9862	0.6275	0.0138	0.0050	0.7253	1.72	0.80	0.26
SCAD	0.5180	0.9326	0.2345	0.9903	0.7655	0.0097	0.0674	0.4820	1.72	7.77	0.18
LASSO	0.5180	0.5430	0.0167	0.9839	0.9833	0.0161	0.4570	0.4820	1.72	48.00	0.00
LARS	0.5180	0.5430	0.0167	0.9839	0.9833	0.0161	0.4570	0.4820	1.72	48.00	0.00
GSDS	0.1736	0.9998	0.9091	0.9856	0.0909	0.0144	0.0002	0.8264	1.72	0.23	0.38
GSR2-r	0.2812	0.9951	0.4789	0.9871	0.5211	0.0129	0.0049	0.7188	1.72	0.89	0.20
GSR2	0.2804	0.9952	0.4857	0.9870	0.5143	0.0130	0.0048	0.7196	1.72	0.86	0.19
FOR	0.5180	0.5442	0.0167	0.9839	0.9833	0.0161	0.4558	0.4820	1.72	47.87	0.00
SWCV	0.5180	0.8438	0.0736	0.9884	0.9264	0.0116	0.1562	0.4820	1.72	16.88	0.00

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 15;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.5845	0.9884	0.4405	0.9908	0.5595	0.0092	0.0116	0.4155	2.62	2.91	0.17
SCAD	0.6049	0.9306	0.2531	0.9906	0.7469	0.0094	0.0694	0.3951	2.62	9.70	0.10
LASSO	0.6083	0.4773	0.0260	0.9828	0.9740	0.0172	0.5227	0.3917	2.62	63.00	0.00
LARS	0.6083	0.4773	0.0260	0.9828	0.9740	0.0172	0.5227	0.3917	2.62	63.00	0.00
GSDS	0.4330	0.9998	0.9608	0.9878	0.0392	0.0122	0.0002	0.5670	2.62	1.20	0.41
GSR2-r	0.4002	0.9857	0.4158	0.9854	0.5842	0.0146	0.0143	0.5998	2.62	2.59	0.09
GSR2	0.4002	0.9844	0.3824	0.9853	0.6176	0.0147	0.0156	0.5998	2.62	2.74	0.09
FOR	0.6083	0.4784	0.0261	0.9829	0.9739	0.0171	0.5216	0.3917	2.62	62.88	0.00
SWCV	0.6049	0.8046	0.1087	0.9895	0.8913	0.0105	0.1954	0.3951	2.62	24.59	0.01

No. factors = 15;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.9561	0.9758	0.6890	0.9979	0.3110	0.0021	0.0242	0.0439	0.82	1.13	0.69
SCAD	0.9912	0.8569	0.4388	0.9993	0.5612	0.0007	0.1431	0.0088	0.82	2.81	0.40
LASSO	1.0000	0.0000	0.0547	NaN	0.9453	NaN	1.0000	0.0000	0.82	15.00	0.00
LARS	1.0000	0.0000	0.0547	NaN	0.9453	NaN	1.0000	0.0000	0.82	15.00	0.00
GSDS	0.6330	0.9993	0.9762	0.9797	0.0238	0.0203	0.0007	0.3670	0.82	0.54	0.73
GSR2-r	0.6053	0.9104	0.3344	0.9746	0.6656	0.0254	0.0896	0.3947	0.82	1.77	0.21
GSR2	0.6140	0.9028	0.3065	0.9737	0.6935	0.0263	0.0972	0.3860	0.82	1.87	0.18
FOR	1.0000	0.0007	0.0547	1.0000	0.9453	0.0000	0.9993	0.0000	0.82	14.99	0.00
SWCV	0.9912	0.6067	0.1986	0.9989	0.8014	0.0011	0.3933	0.0088	0.82	6.40	0.07

No. factors = 15;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.3991	0.9901	0.3771	0.9899	0.6229	0.0101	0.0099	0.6009	1.8	1.78	0.24
SCAD	0.4164	0.9406	0.1840	0.9896	0.8160	0.0104	0.0594	0.5836	1.8	6.89	0.15
LASSO	0.4179	0.5428	0.0171	0.9828	0.9829	0.0172	0.4572	0.5821	1.8	48.00	0.00
LARS	0.4179	0.5428	0.0171	0.9828	0.9829	0.0172	0.4572	0.5821	1.8	48.00	0.00
GSDS	0.3584	0.9999	0.9737	0.9889	0.0263	0.0111	0.0001	0.6416	1.8	0.66	0.45
GSR2-r	0.3099	0.9962	0.5385	0.9868	0.4615	0.0132	0.0038	0.6901	1.8	0.82	0.26
GSR2	0.3099	0.9957	0.4930	0.9868	0.5070	0.0132	0.0043	0.6901	1.8	0.87	0.23
FOR	0.4179	0.5439	0.0171	0.9828	0.9829	0.0172	0.4561	0.5821	1.8	47.89	0.00
SWCV	0.4164	0.8318	0.0764	0.9887	0.9236	0.0113	0.1682	0.5836	1.8	18.19	0.01

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 15;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 16)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.5104	0.9885	0.4118	0.9872	0.5882	0.0128	0.0115	0.4896	2.95	2.81	0.09
SCAD	0.5560	0.9198	0.2540	0.9879	0.7460	0.0121	0.0802	0.4440	2.95	11.05	0.16
LASSO	0.5855	0.4773	0.0287	0.9800	0.9713	0.0200	0.5227	0.4145	2.95	63.00	0.00
LARS	0.5855	0.4773	0.0287	0.9800	0.9713	0.0200	0.5227	0.4145	2.95	63.00	0.00
GSDS	0.3897	0.9950	0.5200	0.9850	0.4800	0.0150	0.0050	0.6103	2.95	1.78	0.08
GSR2-r	0.3536	0.9833	0.4080	0.9828	0.5920	0.0172	0.0167	0.6464	2.95	2.91	0.09
GSR2	0.3284	0.9847	0.4155	0.9819	0.5845	0.0181	0.0153	0.6716	2.95	2.63	0.11
FOR	0.5855	0.4791	0.0288	0.9801	0.9712	0.0199	0.5209	0.4145	2.95	62.79	0.00
SWCV	0.5839	0.7943	0.0997	0.9868	0.9003	0.0132	0.2057	0.4161	2.95	25.79	0.00

No. factors = 15;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 16)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.8138	0.9707	0.6185	0.9865	0.3815	0.0135	0.0293	0.1862	0.89	1.11	0.56
SCAD	0.9368	0.8418	0.4274	0.9956	0.5726	0.0044	0.1582	0.0632	0.89	3.02	0.40
LASSO	1.0000	0.0000	0.0593	NaN	0.9407	NaN	1.0000	0.0000	0.89	15.00	0.00
LARS	1.0000	0.0000	0.0593	NaN	0.9407	NaN	1.0000	0.0000	0.89	15.00	0.00
GSDS	0.6632	0.9939	0.8364	0.9781	0.1636	0.0219	0.0061	0.3368	0.89	0.67	0.67
GSR2-r	0.6132	0.8948	0.3250	0.9695	0.6750	0.0305	0.1052	0.3868	0.89	2.00	0.21
GSR2	0.5816	0.9064	0.3343	0.9674	0.6657	0.0326	0.0936	0.4184	0.89	1.80	0.24
FOR	1.0000	0.0022	0.0595	1.0000	0.9405	0.0000	0.9978	0.0000	0.89	14.97	0.00
SWCV	1.0000	0.5873	0.1792	1.0000	0.8208	0.0000	0.4127	0.0000	0.89	6.62	0.05

No. factors = 15;  $q_{me} = 0.05$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 16)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.3774	0.9909	0.3814	0.9874	0.6186	0.0126	0.0091	0.6226	2.06	1.70	0.17
SCAD	0.3947	0.9303	0.2001	0.9873	0.7999	0.0127	0.0697	0.6053	2.06	8.03	0.16
LASSO	0.4124	0.5427	0.0192	0.9800	0.9808	0.0200	0.4573	0.5876	2.06	48.00	0.00
LARS	0.4124	0.5427	0.0192	0.9800	0.9808	0.0200	0.4573	0.5876	2.06	48.00	0.00
GSDS	0.2759	0.9952	0.4430	0.9860	0.5570	0.0140	0.0048	0.7241	2.06	1.11	0.09
GSR2-r	0.2307	0.9955	0.5000	0.9844	0.5000	0.0156	0.0045	0.7693	2.06	0.91	0.16
GSR2	0.2070	0.9956	0.5000	0.9838	0.5000	0.0162	0.0044	0.7930	2.06	0.83	0.18
FOR	0.4124	0.5444	0.0192	0.9801	0.9808	0.0199	0.4556	0.5876	2.06	47.82	0.00
SWCV	0.4099	0.8223	0.0691	0.9859	0.9309	0.0141	0.1777	0.5901	2.06	19.17	0.00

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 15;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(6, 1)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.1482	0.9959	0.6973	0.9334	0.3027	0.0666	0.0041	0.8518	8.89	1.45	0.01
SCAD	0.6563	0.8961	0.4826	0.9676	0.5174	0.0324	0.1039	0.3437	8.89	17.19	0.03
LASSO	0.6952	0.4873	0.0956	0.9496	0.9044	0.0504	0.5127	0.3048	8.89	63.00	0.00
LARS	0.6952	0.4873	0.0956	0.9496	0.9044	0.0504	0.5127	0.3048	8.89	63.00	0.00
GSDS	0.1692	0.9999	0.9947	0.9350	0.0053	0.0650	0.0001	0.8308	8.89	1.18	0.03
GSR2-r	0.4237	0.9823	0.6817	0.9521	0.3183	0.0479	0.0177	0.5763	8.89	5.38	0.00
GSR2	0.4194	0.9834	0.6666	0.9515	0.3334	0.0485	0.0166	0.5806	8.89	5.17	0.00
FOR	0.6952	0.4900	0.0959	0.9498	0.9041	0.0502	0.5100	0.3048	8.89	62.70	0.00
SWCV	0.6912	0.8117	0.2902	0.9663	0.7098	0.0337	0.1883	0.3088	8.89	26.83	0.00

No. factors = 15;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(6, 1)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.2131	0.9926	0.8605	0.8257	0.1395	0.1743	0.0074	0.7869	3.05	0.60	0.10
SCAD	0.9378	0.7850	0.6716	0.9836	0.3284	0.0164	0.2150	0.0622	3.05	5.38	0.26
LASSO	1.0000	0.0000	0.2033	NaN	0.7967	NaN	1.0000	0.0000	3.05	15.00	0.00
LARS	1.0000	0.0000	0.2033	NaN	0.7967	NaN	1.0000	0.0000	3.05	15.00	0.00
GSDS	0.3117	0.9993	0.9931	0.8410	0.0069	0.1590	0.0007	0.6883	3.05	0.79	0.08
GSR2-r	0.6719	0.8550	0.5695	0.8987	0.4305	0.1013	0.1450	0.3281	3.05	3.66	0.05
GSR2	0.6571	0.8610	0.5556	0.8953	0.4444	0.1047	0.1390	0.3429	3.05	3.52	0.04
FOR	1.0000	0.0075	0.2045	1.0000	0.7955	0.0000	0.9925	0.0000	3.05	14.91	0.00
SWCV	0.9903	0.6135	0.4721	0.9934	0.5279	0.0066	0.3865	0.0097	3.05	7.60	0.05

No. factors = 15;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(6, 1)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.1095	0.9962	0.5945	0.9485	0.4055	0.0515	0.0038	0.8905	5.84	0.85	0.02
SCAD	0.4944	0.9093	0.3915	0.9667	0.6085	0.0333	0.0907	0.5056	5.84	11.81	0.03
LASSO	0.5207	0.5459	0.0619	0.9496	0.9381	0.0504	0.4541	0.4793	5.84	48.00	0.00
LARS	0.5207	0.5459	0.0619	0.9496	0.9381	0.0504	0.4541	0.4793	5.84	48.00	0.00
GSDS	0.0866	1.0000	1.0000	0.9479	0.0000	0.0521	0.0000	0.9134	5.84	0.39	0.03
GSR2-r	0.2831	0.9978	0.8920	0.9579	0.1080	0.0421	0.0022	0.7169	5.84	1.72	0.01
GSR2	0.2895	0.9982	0.8793	0.9577	0.1207	0.0423	0.0018	0.7105	5.84	1.65	0.03
FOR	0.5207	0.5480	0.0621	0.9498	0.9379	0.0502	0.4520	0.4793	5.84	47.79	0.00
SWCV	0.5196	0.8355	0.2142	0.9646	0.7858	0.0354	0.1645	0.4804	5.84	19.23	0.00

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 15;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(12, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.1269	0.9961	0.6542	0.9342	0.3458	0.0658	0.0039	0.8731	8.63	1.26	0.01
SCAD	0.6254	0.9212	0.4611	0.9679	0.5389	0.0321	0.0788	0.3746	8.63	14.06	0.03
LASSO	0.6311	0.4832	0.0860	0.9437	0.9140	0.0563	0.5168	0.3689	8.63	63.00	0.00
LARS	0.6311	0.4832	0.0860	0.9437	0.9140	0.0563	0.5168	0.3689	8.63	63.00	0.00
GSDS	0.1479	1.0000	1.0000	0.9363	0.0000	0.0637	0.0000	0.8521	8.63	1.06	0.05
GSR2-r	0.4051	0.9826	0.6815	0.9526	0.3185	0.0474	0.0174	0.5949	8.63	5.15	0.00
GSR2	0.4171	0.9840	0.6821	0.9532	0.3179	0.0468	0.0160	0.5829	8.63	5.06	0.00
FOR	0.6311	0.4844	0.0862	0.9438	0.9138	0.0562	0.5156	0.3689	8.63	62.87	0.00
SWCV	0.6277	0.8064	0.2526	0.9627	0.7474	0.0373	0.1936	0.3723	8.63	26.93	0.00

No. factors = 15;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(12, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.1939	0.9916	0.8170	0.8269	0.1830	0.1731	0.0084	0.8061	2.98	0.58	0.08
SCAD	0.9877	0.8484	0.6984	0.9963	0.3016	0.0037	0.1516	0.0123	2.98	4.73	0.30
LASSO	1.0000	0.0000	0.1987	NaN	0.8013	NaN	1.0000	0.0000	2.98	15.00	0.00
LARS	1.0000	0.0000	0.1987	NaN	0.8013	NaN	1.0000	0.0000	2.98	15.00	0.00
GSDS	0.2627	1.0000	1.0000	0.8400	0.0000	0.1600	0.0000	0.7373	2.98	0.70	0.12
GSR2-r	0.6251	0.8646	0.5722	0.8962	0.4278	0.1038	0.1354	0.3749	2.98	3.48	0.06
GSR2	0.6317	0.8683	0.5613	0.8976	0.4387	0.1024	0.1317	0.3683	2.98	3.38	0.06
FOR	1.0000	0.0025	0.1991	1.0000	0.8009	0.0000	0.9975	0.0000	2.98	14.97	0.00
SWCV	0.9904	0.6216	0.4527	0.9962	0.5473	0.0038	0.3784	0.0096	2.98	7.47	0.06

No. factors = 15;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(12, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.0676	0.9967	0.5376	0.9492	0.4624	0.0508	0.0033	0.9324	5.65	0.68	0.02
SCAD	0.4098	0.9298	0.3220	0.9652	0.6780	0.0348	0.0702	0.5902	5.65	9.33	0.03
LASSO	0.4123	0.5414	0.0508	0.9437	0.9492	0.0563	0.4586	0.5877	5.65	48.00	0.00
LARS	0.4123	0.5414	0.0508	0.9437	0.9492	0.0563	0.4586	0.5877	5.65	48.00	0.00
GSDS	0.0754	1.0000	1.0000	0.9494	0.0000	0.0506	0.0000	0.9246	5.65	0.36	0.06
GSR2-r	0.2838	0.9973	0.8824	0.9588	0.1176	0.0412	0.0027	0.7162	5.65	1.67	0.04
GSR2	0.3016	0.9982	0.8941	0.9597	0.1059	0.0403	0.0018	0.6984	5.65	1.68	0.04
FOR	0.4123	0.5424	0.0509	0.9438	0.9491	0.0562	0.4576	0.5877	5.65	47.90	0.00
SWCV	0.4113	0.8285	0.1667	0.9605	0.8333	0.0395	0.1715	0.5887	5.65	19.46	0.00

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 15;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.6378	0.9783	0.6970	0.9715	0.3030	0.0285	0.0217	0.3622	8.34	7.57	0.10
SCAD	0.6744	0.9035	0.4511	0.9717	0.5489	0.0283	0.0965	0.3256	8.34	16.23	0.00
LASSO	0.6818	0.4854	0.0876	0.9505	0.9124	0.0495	0.5146	0.3182	8.34	63.00	0.00
LARS	0.6818	0.4854	0.0876	0.9505	0.9124	0.0495	0.5146	0.3182	8.34	63.00	0.00
GSDS	0.4808	0.9998	0.9785	0.9628	0.0215	0.0372	0.0002	0.5192	8.34	4.06	0.08
GSR2-r	0.4384	0.9810	0.6607	0.9571	0.3393	0.0429	0.0190	0.5616	8.34	5.56	0.01
GSR2	0.4580	0.9817	0.6700	0.9591	0.3300	0.0409	0.0183	0.5420	8.34	5.72	0.01
FOR	0.6818	0.4869	0.0878	0.9506	0.9122	0.0494	0.5131	0.3182	8.34	62.83	0.00
SWCV	0.6744	0.8186	0.2829	0.9675	0.7171	0.0325	0.1814	0.3256	8.34	25.80	0.00

No. factors = 15;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.9410	0.9521	0.8656	0.9847	0.1344	0.0153	0.0479	0.0590	2.97	3.34	0.51
SCAD	0.9872	0.7977	0.6620	0.9938	0.3380	0.0062	0.2023	0.0128	2.97	5.32	0.25
LASSO	1.0000	0.0000	0.1980	NaN	0.8020	NaN	1.0000	0.0000	2.97	15.00	0.00
LARS	1.0000	0.0000	0.1980	NaN	0.8020	NaN	1.0000	0.0000	2.97	15.00	0.00
GSDS	0.6236	1.0000	1.0000	0.9172	0.0000	0.0828	0.0000	0.3764	2.97	1.88	0.31
GSR2-r	0.5850	0.8399	0.5204	0.8876	0.4796	0.1124	0.1601	0.4150	2.97	3.62	0.04
GSR2	0.6103	0.8396	0.5271	0.8953	0.4729	0.1047	0.1604	0.3897	2.97	3.71	0.04
FOR	1.0000	0.0043	0.1988	1.0000	0.8012	0.0000	0.9957	0.0000	2.97	14.95	0.00
SWCV	0.9872	0.6320	0.4741	0.9954	0.5259	0.0046	0.3680	0.0128	2.97	7.42	0.03

No. factors = 15;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 1)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.4462	0.9814	0.5812	0.9702	0.4188	0.0298	0.0186	0.5538	5.37	4.23	0.10
SCAD	0.4737	0.9160	0.3446	0.9695	0.6554	0.0305	0.0840	0.5263	5.37	10.91	0.00
LASSO	0.4783	0.5438	0.0531	0.9505	0.9469	0.0495	0.4562	0.5217	5.37	48.00	0.00
LARS	0.4783	0.5438	0.0531	0.9505	0.9469	0.0495	0.4562	0.5217	5.37	48.00	0.00
GSDS	0.3868	0.9998	0.9744	0.9687	0.0256	0.0313	0.0002	0.6132	5.37	2.18	0.11
GSR2-r	0.3426	0.9981	0.9136	0.9647	0.0864	0.0353	0.0019	0.6574	5.37	1.94	0.10
GSR2	0.3599	0.9986	0.9146	0.9659	0.0854	0.0341	0.0014	0.6401	5.37	2.01	0.09
FOR	0.4783	0.5450	0.0532	0.9506	0.9468	0.0494	0.4550	0.5217	5.37	47.88	0.00
SWCV	0.4737	0.8413	0.1999	0.9657	0.8001	0.0343	0.1587	0.5263	5.37	18.38	0.00

$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.5}$   
 SCAD for  $s_0$ :  $E[\#act\ eff] + 0.5 \cdot SD(\#act\ eff)$

07/19/2009

No. factors = 15;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 16)$ ; Simulation size 100

Averages: for all effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.5176	0.9845	0.7060	0.9583	0.2940	0.0417	0.0155	0.4824	8.78	5.74	0.06
SCAD	0.6337	0.9139	0.4655	0.9672	0.5345	0.0328	0.0861	0.3663	8.78	14.97	0.01
LASSO	0.6652	0.4855	0.0913	0.9468	0.9087	0.0532	0.5145	0.3348	8.78	63.00	0.00
LARS	0.6652	0.4855	0.0913	0.9468	0.9087	0.0532	0.5145	0.3348	8.78	63.00	0.00
GSDS	0.4015	0.9994	0.9500	0.9517	0.0500	0.0483	0.0006	0.5985	8.78	3.22	0.07
GSR2-r	0.4527	0.9819	0.6428	0.9540	0.3572	0.0460	0.0181	0.5473	8.78	5.55	0.00
GSR2	0.4303	0.9829	0.6578	0.9520	0.3422	0.0480	0.0171	0.5697	8.78	5.19	0.01
FOR	0.6652	0.4870	0.0916	0.9470	0.9084	0.0530	0.5130	0.3348	8.78	62.83	0.00
SWCV	0.6536	0.7719	0.2547	0.9622	0.7453	0.0378	0.2281	0.3464	8.78	31.03	0.00

No. factors = 15;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 16)$ ; Simulation size 100

Averages: for main effects

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.7560	0.9732	0.8869	0.9249	0.1131	0.0751	0.0268	0.2440	3.09	2.43	0.41
SCAD	0.9453	0.8241	0.6864	0.9857	0.3136	0.0143	0.1759	0.0547	3.09	4.95	0.24
LASSO	1.0000	0.0000	0.2060	NaN	0.7940	NaN	1.0000	0.0000	3.09	15.00	0.00
LARS	1.0000	0.0000	0.2060	NaN	0.7940	NaN	1.0000	0.0000	3.09	15.00	0.00
GSDS	0.5934	0.9993	0.9890	0.8965	0.0110	0.1035	0.0007	0.4066	3.09	1.74	0.29
GSR2-r	0.6450	0.8429	0.5073	0.8913	0.4927	0.1087	0.1571	0.3550	3.09	3.77	0.04
GSR2	0.6190	0.8549	0.5255	0.8860	0.4745	0.1140	0.1451	0.3810	3.09	3.53	0.05
FOR	1.0000	0.0009	0.2062	1.0000	0.7938	0.0000	0.9991	0.0000	3.09	14.99	0.00
SWCV	0.9773	0.5465	0.4541	0.9851	0.5459	0.0149	0.4535	0.0227	3.09	8.44	0.06

No. factors = 15;  $q_{me} = 0.2$ ; Active Eff. Dist  $N(24, 4)$ ; Inactive Eff. Dist  $N(0, 16)$ ; Simulation size 100

Averages: for interactions

	Sens	Spec	sPPV	sNPV	FDR	FNPV	Type I	Type II	MSTr	MSEst	TMIR
DS	0.3743	0.9857	0.5738	0.9626	0.4262	0.0374	0.0143	0.6257	5.69	3.31	0.07
SCAD	0.4539	0.9242	0.3424	0.9659	0.6576	0.0341	0.0758	0.5461	5.69	10.02	0.01
LASSO	0.4712	0.5434	0.0554	0.9468	0.9446	0.0532	0.4566	0.5288	5.69	48.00	0.00
LARS	0.4712	0.5434	0.0554	0.9468	0.9446	0.0532	0.4566	0.5288	5.69	48.00	0.00
GSDS	0.2716	0.9994	0.9375	0.9588	0.0625	0.0412	0.0006	0.7284	5.69	1.48	0.07
GSR2-r	0.3210	0.9985	0.9105	0.9606	0.0895	0.0394	0.0015	0.6790	5.69	1.78	0.05
GSR2	0.2981	0.9983	0.9111	0.9594	0.0889	0.0406	0.0017	0.7019	5.69	1.66	0.04
FOR	0.4712	0.5451	0.0556	0.9470	0.9444	0.0530	0.4549	0.5288	5.69	47.84	0.00
SWCV	0.4634	0.7989	0.1754	0.9610	0.8246	0.0390	0.2011	0.5366	5.69	22.59	0.00