

$$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.9}$$

07/19/2009

SCAD for s_0 : $E[\#act\ eff] + 0.25 \cdot SD(\#act\ eff)$

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	0.6045	0.9951	0.6849	0.9870	0.3151	0.0130	0.0049	0.3955	1.25	0.82	0.46
SCAD	1.0000	0.9658	0.4716	1.0000	0.5284	0.0000	0.0342	0.0000	1.25	3.07	0.53
LASSO	0.9960	0.3536	0.0344	0.9995	0.9656	0.0005	0.6464	0.0040	1.25	36.00	0.00
LARS	1.0000	0.3538	0.0347	1.0000	0.9653	0.0000	0.6462	0.0000	1.25	36.00	0.00
GSDS	0.5695	0.9995	0.9434	0.9865	0.0566	0.0135	0.0005	0.4305	1.25	0.55	0.63
GSR2-r	0.7043	0.9817	0.5299	0.9895	0.4701	0.0105	0.0183	0.2957	1.25	1.68	0.40
GSR2	0.7640	0.9807	0.5293	0.9916	0.4707	0.0084	0.0193	0.2360	1.25	1.85	0.39
FOR	1.0000	0.3725	0.0357	1.0000	0.9643	0.0000	0.6275	0.0000	1.25	35.00	0.00
SWCV	1.0000	0.8231	0.1280	1.0000	0.8720	0.0000	0.1769	0.0000	1.25	10.80	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	0.6008	0.9990	0.9667	0.9752	0.0333	0.0248	0.0010	0.3992	0.53	0.30	0.79
SCAD	1.0000	0.9662	0.6997	1.0000	0.3003	0.0000	0.0338	0.0000	0.53	0.84	0.77
LASSO	0.9884	0.3783	0.0849	0.9983	0.9151	0.0017	0.6217	0.0116	0.53	6.42	0.00
LARS	1.0000	0.3668	0.0835	1.0000	0.9165	0.0000	0.6332	0.0000	0.53	6.54	0.00
GSDS	0.6240	1.0000	1.0000	0.9762	0.0000	0.0238	0.0000	0.3760	0.53	0.30	0.81
GSR2-r	0.8411	0.9193	0.4440	0.9876	0.5560	0.0124	0.0807	0.1589	0.53	1.20	0.50
GSR2	0.9225	0.9123	0.4393	0.9928	0.5607	0.0072	0.0877	0.0775	0.53	1.31	0.47
FOR	1.0000	0.3638	0.0817	1.0000	0.9183	0.0000	0.6362	0.0000	0.53	6.56	0.00
SWCV	1.0000	0.8221	0.2495	1.0000	0.7505	0.0000	0.1779	0.0000	0.53	2.23	0.17

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	0.4979	0.9942	0.5306	0.9897	0.4694	0.0103	0.0058	0.5021	0.72	0.52	0.52
SCAD	1.0000	0.9657	0.4109	1.0000	0.5891	0.0000	0.0343	0.0000	0.72	2.23	0.56
LASSO	1.0000	0.3485	0.0245	1.0000	0.9755	0.0000	0.6515	0.0000	0.72	29.58	0.00
LARS	1.0000	0.3512	0.0245	1.0000	0.9755	0.0000	0.6488	0.0000	0.72	29.46	0.00
GSDS	0.3938	0.9993	0.8800	0.9888	0.1200	0.0112	0.0007	0.6062	0.72	0.25	0.68
GSR2-r	0.5125	0.9953	0.6047	0.9899	0.3953	0.0101	0.0047	0.4875	0.72	0.48	0.59
GSR2	0.6062	0.9956	0.6531	0.9914	0.3469	0.0086	0.0044	0.3938	0.72	0.54	0.61
FOR	1.0000	0.3743	0.0255	1.0000	0.9745	0.0000	0.6257	0.0000	0.72	28.44	0.00
SWCV	1.0000	0.8233	0.0979	1.0000	0.9021	0.0000	0.1767	0.0000	0.72	8.57	0.00

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07/19/2009

SCAD for s_0 : $E[\#act\ eff] + 0.25 \cdot SD(\#act\ eff)$

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	0.8828	0.9971	0.8000	0.9960	0.2000	0.0040	0.0029	0.1172	1.58	1.53	0.65
SCAD	1.0000	0.9703	0.5902	1.0000	0.4098	0.0000	0.0297	0.0000	1.58	3.16	0.57
LASSO	1.0000	0.3560	0.0439	1.0000	0.9561	0.0000	0.6440	0.0000	1.58	36.00	0.00
LARS	1.0000	0.3560	0.0439	1.0000	0.9561	0.0000	0.6440	0.0000	1.58	36.00	0.00
GSDS	0.9222	0.9998	0.9836	0.9972	0.0164	0.0028	0.0002	0.0778	1.58	1.44	0.88
GSR2-r	0.7378	0.9738	0.4325	0.9882	0.5675	0.0118	0.0262	0.2622	1.58	2.36	0.20
GSR2	0.7439	0.9761	0.4750	0.9890	0.5250	0.0110	0.0239	0.2561	1.58	2.28	0.25
FOR	1.0000	0.3934	0.0549	1.0000	0.9451	0.0000	0.6066	0.0000	1.58	33.98	0.01
SWCV	1.0000	0.8659	0.2397	1.0000	0.7603	0.0000	0.1341	0.0000	1.58	8.81	0.03

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	0.8080	0.9990	0.9744	0.9896	0.0256	0.0104	0.0010	0.1920	0.56	0.47	0.89
SCAD	1.0000	0.9665	0.7000	1.0000	0.3000	0.0000	0.0335	0.0000	0.56	0.87	0.77
LASSO	1.0000	0.3441	0.0843	1.0000	0.9157	0.0000	0.6559	0.0000	0.56	6.76	0.00
LARS	1.0000	0.3564	0.0840	1.0000	0.9160	0.0000	0.6436	0.0000	0.56	6.64	0.00
GSDS	0.9457	0.9990	0.9778	0.9969	0.0222	0.0031	0.0010	0.0543	0.56	0.54	0.96
GSR2-r	0.8261	0.8771	0.2981	0.9848	0.7019	0.0152	0.1229	0.1739	0.56	1.60	0.25
GSR2	0.8877	0.8846	0.3344	0.9885	0.6656	0.0115	0.1154	0.1123	0.56	1.56	0.31
FOR	1.0000	0.3699	0.0842	1.0000	0.9158	0.0000	0.6301	0.0000	0.56	6.49	0.03
SWCV	1.0000	0.8522	0.3629	1.0000	0.6371	0.0000	0.1478	0.0000	0.56	1.97	0.36

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	0.8893	0.9967	0.7910	0.9975	0.2090	0.0025	0.0033	0.1107	1.02	1.06	0.75
SCAD	1.0000	0.9711	0.5643	1.0000	0.4357	0.0000	0.0289	0.0000	1.02	2.29	0.58
LASSO	1.0000	0.3586	0.0349	1.0000	0.9651	0.0000	0.6414	0.0000	1.02	29.24	0.00
LARS	1.0000	0.3559	0.0349	1.0000	0.9651	0.0000	0.6441	0.0000	1.02	29.36	0.00
GSDS	0.8759	1.0000	1.0000	0.9973	0.0000	0.0027	0.0000	0.1241	1.02	0.90	0.91
GSR2-r	0.6643	0.9949	0.6970	0.9890	0.3030	0.0110	0.0051	0.3357	1.02	0.76	0.55
GSR2	0.6539	0.9960	0.7500	0.9892	0.2500	0.0108	0.0040	0.3461	1.02	0.72	0.57
FOR	1.0000	0.3983	0.0462	1.0000	0.9538	0.0000	0.6017	0.0000	1.02	27.49	0.01
SWCV	1.0000	0.8686	0.2116	1.0000	0.7884	0.0000	0.1314	0.0000	1.02	6.84	0.04

$$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.9}$$

07/19/2009

SCAD for s_0 : $E[\#act\ eff] + 0.25 \cdot SD(\#act\ eff)$

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	0.3376	0.9987	0.9362	0.9350	0.0638	0.0650	0.0013	0.6624	4.55	1.12	0.13
SCAD	0.9846	0.8266	0.4415	0.9954	0.5585	0.0046	0.1734	0.0154	4.55	13.24	0.16
LASSO	0.9962	0.3776	0.1256	0.9984	0.8744	0.0016	0.6224	0.0038	4.55	36.00	0.00
LARS	0.9984	0.3778	0.1258	0.9989	0.8742	0.0011	0.6222	0.0016	4.55	36.00	0.00
GSDS	0.3144	0.9998	0.9889	0.9337	0.0111	0.0663	0.0002	0.6856	4.55	0.99	0.17
GSR2-r	0.7147	0.9723	0.6911	0.9623	0.3089	0.0377	0.0277	0.2853	4.55	4.04	0.12
GSR2	0.7125	0.9727	0.6901	0.9615	0.3099	0.0385	0.0273	0.2875	4.55	3.96	0.13
FOR	0.9947	0.3964	0.1280	0.9965	0.8720	0.0035	0.6036	0.0053	4.55	35.00	0.00
SWCV	0.9763	0.8775	0.4051	0.9943	0.5949	0.0057	0.1225	0.0237	4.55	10.52	0.00

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	0.3241	0.9990	0.9796	0.8377	0.0204	0.1623	0.0010	0.6759	2.08	0.53	0.25
SCAD	0.9816	0.8386	0.6621	0.9912	0.3379	0.0088	0.1614	0.0184	2.08	3.34	0.42
LASSO	0.9954	0.4209	0.3103	0.9941	0.6897	0.0059	0.5791	0.0046	2.08	6.69	0.00
LARS	0.9954	0.4094	0.3067	0.9958	0.6933	0.0042	0.5906	0.0046	2.08	6.76	0.01
GSDS	0.3416	1.0000	1.0000	0.8403	0.0000	0.1597	0.0000	0.6584	2.08	0.58	0.25
GSR2-r	0.8450	0.8461	0.5938	0.9356	0.4062	0.0644	0.1539	0.1550	2.08	2.87	0.18
GSR2	0.8239	0.8490	0.5858	0.9289	0.4142	0.0711	0.1510	0.1761	2.08	2.78	0.17
FOR	0.9954	0.3907	0.3001	0.9925	0.6999	0.0075	0.6093	0.0046	2.08	6.90	0.00
SWCV	0.9678	0.8745	0.6574	0.9880	0.3426	0.0120	0.1255	0.0322	2.08	2.98	0.34

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	0.2790	0.9986	0.8929	0.9562	0.1071	0.0438	0.0014	0.7210	2.47	0.59	0.27
SCAD	0.9836	0.8244	0.3616	0.9964	0.6384	0.0036	0.1756	0.0164	2.47	9.90	0.17
LASSO	0.9974	0.3700	0.0845	0.9994	0.9155	0.0006	0.6300	0.0026	2.47	29.31	0.00
LARS	1.0000	0.3720	0.0853	1.0000	0.9147	0.0000	0.6280	0.0000	2.47	29.24	0.00
GSDS	0.2138	0.9998	0.9737	0.9535	0.0263	0.0465	0.0002	0.7862	2.47	0.41	0.29
GSR2-r	0.5590	0.9964	0.8816	0.9667	0.1184	0.0333	0.0036	0.4410	2.47	1.17	0.39
GSR2	0.5771	0.9967	0.8684	0.9673	0.1316	0.0327	0.0033	0.4229	2.47	1.18	0.39
FOR	0.9933	0.3974	0.0870	0.9971	0.9130	0.0029	0.6026	0.0067	2.47	28.10	0.00
SWCV	0.9767	0.8779	0.3111	0.9959	0.6889	0.0041	0.1221	0.0233	2.47	7.54	0.01

$$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.9}$$

07/19/2009

SCAD for s_0 : $E[\#act\ eff] + 0.25 \cdot SD(\#act\ eff)$

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	0.8202	0.9989	0.9439	0.9727	0.0561	0.0273	0.0011	0.1798	4.88	3.51	0.60
SCAD	0.9649	0.8566	0.5316	0.9913	0.4684	0.0087	0.1434	0.0351	4.88	11.85	0.23
LASSO	0.9919	0.3786	0.1331	0.9953	0.8669	0.0047	0.6214	0.0081	4.88	36.00	0.00
LARS	0.9979	0.3800	0.1347	0.9984	0.8653	0.0016	0.6200	0.0021	4.88	36.00	0.00
GSDS	0.7628	0.9996	0.9783	0.9677	0.0217	0.0323	0.0004	0.2372	4.88	3.22	0.60
GSR2-r	0.6617	0.9755	0.7190	0.9545	0.2810	0.0455	0.0245	0.3383	4.88	3.77	0.10
GSR2	0.6466	0.9776	0.7203	0.9532	0.2797	0.0468	0.0224	0.3534	4.88	3.59	0.09
FOR	0.9933	0.3989	0.1371	0.9960	0.8629	0.0040	0.6011	0.0067	4.88	35.00	0.00
SWCV	0.9827	0.8875	0.4962	0.9953	0.5038	0.0047	0.1125	0.0173	4.88	10.43	0.13

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	0.8363	1.0000	1.0000	0.9389	0.0000	0.0611	0.0000	0.1637	2.25	1.69	0.78
SCAD	0.9650	0.8637	0.7152	0.9817	0.2848	0.0183	0.1363	0.0350	2.25	3.22	0.47
LASSO	0.9900	0.4035	0.3226	0.9842	0.6774	0.0158	0.5965	0.0100	2.25	6.84	0.00
LARS	0.9956	0.3901	0.3220	0.9959	0.6780	0.0041	0.6099	0.0044	2.25	6.97	0.00
GSDS	0.8711	0.9990	0.9890	0.9504	0.0110	0.0496	0.0010	0.1289	2.25	1.85	0.77
GSR2-r	0.7789	0.8664	0.6270	0.9127	0.3730	0.0873	0.1336	0.2211	2.25	2.65	0.18
GSR2	0.7706	0.8760	0.6312	0.9096	0.3688	0.0904	0.1240	0.2294	2.25	2.53	0.16
FOR	0.9928	0.4063	0.3259	0.9915	0.6741	0.0085	0.5937	0.0072	2.25	6.83	0.01
SWCV	0.9785	0.9009	0.7347	0.9884	0.2653	0.0116	0.0991	0.0215	2.25	2.97	0.46

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	0.8051	0.9986	0.9360	0.9800	0.0640	0.0200	0.0014	0.1949	2.63	1.82	0.67
SCAD	0.9604	0.8550	0.4603	0.9935	0.5397	0.0065	0.1450	0.0396	2.63	8.63	0.25
LASSO	0.9919	0.3738	0.0892	0.9968	0.9108	0.0032	0.6262	0.0081	2.63	29.16	0.00
LARS	0.9989	0.3778	0.0908	0.9993	0.9092	0.0007	0.6222	0.0011	2.63	29.03	0.00
GSDS	0.6530	0.9998	0.9859	0.9711	0.0141	0.0289	0.0002	0.3470	2.63	1.37	0.62
GSR2-r	0.5206	0.9964	0.8816	0.9622	0.1184	0.0378	0.0036	0.4794	2.63	1.12	0.37
GSR2	0.5034	0.9971	0.8933	0.9615	0.1067	0.0385	0.0029	0.4966	2.63	1.06	0.37
FOR	0.9925	0.3971	0.0923	0.9970	0.9077	0.0030	0.6029	0.0075	2.63	28.17	0.00
SWCV	0.9831	0.8847	0.4148	0.9968	0.5852	0.0032	0.1153	0.0169	2.63	7.46	0.16

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07/19/2009

SCAD for s_0 : $E[\#act\ eff] + 0.25 \cdot SD(\#act\ eff)$

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	0.2797	0.9946	0.4421	0.9806	0.5579	0.0194	0.0054	0.7203	2.79	1.12	0.15
SCAD	0.5850	0.9593	0.3094	0.9893	0.6906	0.0107	0.0407	0.4150	2.79	6.35	0.17
LASSO	0.5409	0.9891	0.4014	0.9871	0.5986	0.0129	0.0109	0.4591	2.79	2.55	0.13
LARS	0.5409	0.9891	0.4014	0.9871	0.5986	0.0129	0.0109	0.4591	2.79	2.55	0.13
GSDS	0.2340	0.9992	0.8519	0.9810	0.1481	0.0190	0.0008	0.7660	2.79	0.62	0.29
GSR2-r	0.3620	0.9831	0.3431	0.9837	0.6569	0.0163	0.0169	0.6380	2.79	2.87	0.07
GSR2	0.3524	0.9824	0.3399	0.9833	0.6601	0.0167	0.0176	0.6476	2.79	2.90	0.06
FOR	0.5889	0.4784	0.0263	0.9801	0.9737	0.0199	0.5216	0.4111	2.79	62.79	0.00
SWCV	0.5870	0.8941	0.1149	0.9888	0.8851	0.0112	0.1059	0.4130	2.79	14.02	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	0.3450	0.9869	0.5795	0.9637	0.4205	0.0363	0.0131	0.6550	0.79	0.45	0.44
SCAD	1.0000	0.9187	0.4718	1.0000	0.5282	0.0000	0.0813	0.0000	0.79	1.91	0.42
LASSO	0.9152	0.9755	0.6878	0.9918	0.3122	0.0082	0.0245	0.0848	0.79	1.02	0.66
LARS	0.9152	0.9755	0.6878	0.9918	0.3122	0.0082	0.0245	0.0848	0.79	1.02	0.66
GSDS	0.3655	1.0000	1.0000	0.9647	0.0000	0.0353	0.0000	0.6345	0.79	0.27	0.58
GSR2-r	0.5702	0.8943	0.2591	0.9736	0.7409	0.0264	0.1057	0.4298	0.79	1.96	0.15
GSR2	0.5526	0.8918	0.2575	0.9721	0.7425	0.0279	0.1082	0.4474	0.79	1.98	0.14
FOR	1.0000	0.0044	0.0530	1.0000	0.9470	0.0000	0.9956	0.0000	0.79	14.94	0.00
SWCV	1.0000	0.7859	0.1942	1.0000	0.8058	0.0000	0.2141	0.0000	0.79	3.81	0.03

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	0.2013	0.9957	0.3538	0.9830	0.6462	0.0170	0.0043	0.7987	2	0.67	0.21
SCAD	0.4302	0.9648	0.2649	0.9881	0.7351	0.0119	0.0352	0.5698	2	4.44	0.18
LASSO	0.3899	0.9910	0.3439	0.9865	0.6561	0.0135	0.0090	0.6101	2	1.53	0.21
LARS	0.3899	0.9910	0.3439	0.9865	0.6561	0.0135	0.0090	0.6101	2	1.53	0.21
GSDS	0.1347	0.9991	0.7419	0.9833	0.2581	0.0167	0.0009	0.8653	2	0.35	0.30
GSR2-r	0.2668	0.9955	0.4865	0.9850	0.5135	0.0150	0.0045	0.7332	2	0.91	0.19
GSR2	0.2583	0.9951	0.4730	0.9847	0.5270	0.0153	0.0049	0.7417	2	0.92	0.18
FOR	0.4354	0.5438	0.0179	0.9800	0.9821	0.0200	0.4562	0.5646	2	47.85	0.00
SWCV	0.4326	0.9089	0.0865	0.9876	0.9135	0.0124	0.0911	0.5674	2	10.21	0.00

$$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.9}$$

07/19/2009

SCAD for s_0 : $E[\#act\ eff] + 0.25 \cdot SD(\#act\ eff)$

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	0.6098	0.9903	0.4948	0.9899	0.5052	0.0101	0.0097	0.3902	2.7	2.66	0.30
SCAD	0.6333	0.9374	0.2746	0.9906	0.7254	0.0094	0.0626	0.3667	2.7	9.00	0.17
LASSO	0.6198	0.9895	0.4330	0.9902	0.5670	0.0098	0.0105	0.3802	2.7	2.79	0.17
LARS	0.6198	0.9895	0.4330	0.9902	0.5670	0.0098	0.0105	0.3802	2.7	2.79	0.17
GSDS	0.4295	0.9997	0.9245	0.9873	0.0755	0.0127	0.0003	0.5705	2.7	1.25	0.40
GSR2-r	0.3798	0.9835	0.3682	0.9846	0.6318	0.0154	0.0165	0.6202	2.7	2.84	0.08
GSR2	0.3838	0.9839	0.3760	0.9847	0.6240	0.0153	0.0161	0.6162	2.7	2.81	0.08
FOR	0.6333	0.4791	0.0274	0.9828	0.9726	0.0172	0.5209	0.3667	2.7	62.83	0.00
SWCV	0.6333	0.8969	0.1239	0.9903	0.8761	0.0097	0.1031	0.3667	2.7	13.77	0.00

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	0.9493	0.9762	0.6758	0.9934	0.3242	0.0066	0.0238	0.0507	0.79	1.03	0.70
SCAD	1.0000	0.8656	0.4158	1.0000	0.5842	0.0000	0.1344	0.0000	0.79	2.65	0.42
LASSO	0.9657	0.9747	0.6641	0.9950	0.3359	0.0050	0.0253	0.0343	0.79	1.07	0.68
LARS	0.9657	0.9747	0.6641	0.9950	0.3359	0.0050	0.0253	0.0343	0.79	1.07	0.68
GSDS	0.6928	0.9987	0.9524	0.9818	0.0476	0.0182	0.0013	0.3072	0.79	0.55	0.78
GSR2-r	0.6160	0.8943	0.2756	0.9724	0.7244	0.0276	0.1057	0.3840	0.79	1.95	0.16
GSR2	0.6454	0.8977	0.2865	0.9745	0.7135	0.0255	0.1023	0.3546	0.79	1.93	0.15
FOR	1.0000	0.0029	0.0529	1.0000	0.9471	0.0000	0.9971	0.0000	0.79	14.96	0.00
SWCV	1.0000	0.7801	0.2066	1.0000	0.7934	0.0000	0.2199	0.0000	0.79	3.89	0.06

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	0.4743	0.9922	0.4642	0.9895	0.5358	0.0105	0.0078	0.5257	1.91	1.63	0.34
SCAD	0.4945	0.9471	0.2324	0.9896	0.7676	0.0104	0.0529	0.5055	1.91	6.35	0.20
LASSO	0.4839	0.9915	0.4096	0.9897	0.5904	0.0103	0.0085	0.5161	1.91	1.72	0.24
LARS	0.4839	0.9915	0.4096	0.9897	0.5904	0.0103	0.0085	0.5161	1.91	1.72	0.24
GSDS	0.3498	0.9998	0.9512	0.9881	0.0488	0.0119	0.0002	0.6502	1.91	0.70	0.44
GSR2-r	0.2939	0.9959	0.5217	0.9861	0.4783	0.0139	0.0041	0.7061	1.91	0.89	0.22
GSR2	0.2890	0.9959	0.5286	0.9860	0.4714	0.0140	0.0041	0.7110	1.91	0.88	0.23
FOR	0.4945	0.5447	0.0194	0.9828	0.9806	0.0172	0.4553	0.5055	1.91	47.87	0.00
SWCV	0.4945	0.9129	0.0949	0.9893	0.9051	0.0107	0.0871	0.5055	1.91	9.88	0.00

$$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.9}$$

07/19/2009

SCAD for s_0 : $E[\#act\ eff] + 0.25 \cdot SD(\#act\ eff)$

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	0.1543	0.9975	0.7683	0.9298	0.2317	0.0702	0.0025	0.8457	9.31	1.25	0.02
SCAD	0.6556	0.8978	0.4545	0.9644	0.5455	0.0356	0.1022	0.3444	9.31	17.03	0.01
LASSO	0.3814	0.9904	0.6606	0.9405	0.3394	0.0595	0.0096	0.6186	9.31	3.36	0.04
LARS	0.3814	0.9904	0.6606	0.9405	0.3394	0.0595	0.0096	0.6186	9.31	3.36	0.04
GSDS	0.1403	0.9999	0.9892	0.9302	0.0108	0.0698	0.0001	0.8597	9.31	1.02	0.03
GSR2-r	0.4023	0.9852	0.7223	0.9481	0.2777	0.0519	0.0148	0.5977	9.31	5.00	0.01
GSR2	0.4020	0.9842	0.7249	0.9481	0.2751	0.0519	0.0158	0.5980	9.31	5.13	0.01
FOR	0.6660	0.4873	0.0963	0.9430	0.9037	0.0570	0.5127	0.3340	9.31	62.82	0.00
SWCV	0.6577	0.8767	0.3279	0.9647	0.6721	0.0353	0.1233	0.3423	9.31	19.47	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	0.2371	0.9926	0.8651	0.8183	0.1349	0.1817	0.0074	0.7629	3.23	0.70	0.09
SCAD	0.9799	0.7896	0.6816	0.9891	0.3184	0.0109	0.2104	0.0201	3.23	5.52	0.26
LASSO	0.5538	0.9796	0.8475	0.8702	0.1525	0.1298	0.0204	0.4462	3.23	1.60	0.35
LARS	0.5538	0.9796	0.8475	0.8702	0.1525	0.1298	0.0204	0.4462	3.23	1.60	0.35
GSDS	0.2654	0.9992	0.9857	0.8253	0.0143	0.1747	0.0008	0.7346	3.23	0.75	0.07
GSR2-r	0.6198	0.8763	0.6183	0.8851	0.3817	0.1149	0.1237	0.3802	3.23	3.40	0.07
GSR2	0.6195	0.8688	0.6162	0.8847	0.3838	0.1153	0.1312	0.3805	3.23	3.48	0.07
FOR	1.0000	0.0008	0.2154	1.0000	0.7846	0.0000	0.9992	0.0000	3.23	14.99	0.00
SWCV	0.9842	0.7339	0.5316	0.9939	0.4684	0.0061	0.2661	0.0158	3.23	6.22	0.03

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	0.0765	0.9981	0.6562	0.9452	0.3438	0.0548	0.0019	0.9235	6.08	0.55	0.02
SCAD	0.4506	0.9103	0.3274	0.9624	0.6726	0.0376	0.0897	0.5494	6.08	11.51	0.01
LASSO	0.2432	0.9917	0.5002	0.9504	0.4998	0.0496	0.0083	0.7568	6.08	1.76	0.04
LARS	0.2432	0.9917	0.5002	0.9504	0.4998	0.0496	0.0083	0.7568	6.08	1.76	0.04
GSDS	0.0531	1.0000	1.0000	0.9445	0.0000	0.0555	0.0000	0.9469	6.08	0.27	0.04
GSR2-r	0.2746	0.9983	0.9036	0.9550	0.0964	0.0450	0.0017	0.7254	6.08	1.60	0.05
GSR2	0.2732	0.9981	0.9125	0.9552	0.0875	0.0448	0.0019	0.7268	6.08	1.65	0.05
FOR	0.4578	0.5450	0.0590	0.9430	0.9410	0.0570	0.4550	0.5422	6.08	47.83	0.00
SWCV	0.4517	0.8932	0.2305	0.9625	0.7695	0.0375	0.1068	0.5483	6.08	13.25	0.00

$$mAIC = n \cdot \log(rss/n) + 2 \cdot p^{1.9}$$

07/19/2009

SCAD for s_0 : $E[\#act\ eff] + 0.25 \cdot SD(\#act\ eff)$

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	0.5727	0.9823	0.6782	0.9645	0.3218	0.0355	0.0177	0.4273	8.17	6.08	0.10
SCAD	0.6640	0.8957	0.4565	0.9701	0.5435	0.0299	0.1043	0.3360	8.17	16.83	0.03
LASSO	0.5552	0.9828	0.6561	0.9611	0.3439	0.0389	0.0172	0.4448	8.17	5.58	0.09
LARS	0.5552	0.9828	0.6561	0.9611	0.3439	0.0389	0.0172	0.4448	8.17	5.58	0.09
GSDS	0.4329	0.9998	0.9785	0.9566	0.0215	0.0434	0.0002	0.5671	8.17	3.12	0.07
GSR2-r	0.4508	0.9835	0.6670	0.9577	0.3330	0.0423	0.0165	0.5492	8.17	5.18	0.03
GSR2	0.4745	0.9815	0.6734	0.9596	0.3266	0.0404	0.0185	0.5255	8.17	5.64	0.03
FOR	0.6678	0.4863	0.0854	0.9509	0.9146	0.0491	0.5137	0.3322	8.17	62.84	0.00
SWCV	0.6659	0.8912	0.3167	0.9708	0.6833	0.0292	0.1088	0.3341	8.17	17.35	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	0.8612	0.9629	0.8669	0.9551	0.1331	0.0449	0.0371	0.1388	2.92	2.74	0.49
SCAD	0.9974	0.7892	0.6783	0.9989	0.3217	0.0011	0.2108	0.0026	2.92	5.39	0.33
LASSO	0.8207	0.9617	0.8411	0.9411	0.1589	0.0589	0.0383	0.1793	2.92	2.53	0.46
LARS	0.8207	0.9617	0.8411	0.9411	0.1589	0.0589	0.0383	0.1793	2.92	2.53	0.46
GSDS	0.5796	0.9993	0.9884	0.9010	0.0116	0.0990	0.0007	0.4204	2.92	1.62	0.28
GSR2-r	0.6168	0.8582	0.5346	0.8980	0.4654	0.1020	0.1418	0.3832	2.92	3.49	0.06
GSR2	0.6421	0.8450	0.5364	0.9027	0.4636	0.0973	0.1550	0.3579	2.92	3.74	0.06
FOR	1.0000	0.0015	0.1949	1.0000	0.8051	0.0000	0.9985	0.0000	2.92	14.98	0.00
SWCV	1.0000	0.7746	0.5380	1.0000	0.4620	0.0000	0.2254	0.0000	2.92	5.56	0.10

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	0.3899	0.9846	0.5494	0.9662	0.4506	0.0338	0.0154	0.6101	5.25	3.34	0.10
SCAD	0.4603	0.9083	0.3224	0.9678	0.6776	0.0322	0.0917	0.5397	5.25	11.44	0.04
LASSO	0.3768	0.9854	0.5204	0.9642	0.4796	0.0358	0.0146	0.6232	5.25	3.05	0.09
LARS	0.3768	0.9854	0.5204	0.9642	0.4796	0.0358	0.0146	0.6232	5.25	3.05	0.09
GSDS	0.3384	0.9999	0.9861	0.9637	0.0139	0.0363	0.0001	0.6616	5.25	1.50	0.10
GSR2-r	0.3428	0.9986	0.9157	0.9642	0.0843	0.0358	0.0014	0.6572	5.25	1.69	0.07
GSR2	0.3694	0.9981	0.9176	0.9655	0.0824	0.0345	0.0019	0.6306	5.25	1.90	0.08
FOR	0.4649	0.5447	0.0510	0.9508	0.9490	0.0492	0.4553	0.5351	5.25	47.86	0.00
SWCV	0.4620	0.9050	0.2128	0.9682	0.7872	0.0318	0.0950	0.5380	5.25	11.79	0.00