

Table 1: Weights=[0.3, 0.7], SNR=5, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0374	0.0279	0.0251	0.0375
Estimated magnitude DWI	0.0498	0.0355	0.0286	0.0396
Mean ODF	0.1490	0.1351	0.1164	0.1136
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	9.5079	1.9242	1.6982	2.6055
Estimated magnitude DWI	16.2088	3.2134	1.8802	2.9342
Mean ODF	17.1347	2.1100	1.3313	3.7569
Real ODF	2.3505	0.8055	1.0456	0.0454

Table 2: Weights=[0.3, 0.7], SNR=5, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0355	0.0268	0.0317	0.0306
Estimated magnitude DWI	0.0425	0.0467	0.0177	0.0797
Mean ODF	0.4620	0.3927	0.3599	0.3490
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	12.3459	1.3529	1.9497	0.3118
Estimated magnitude DWI	17.1379	5.3381	1.4139	4.6043
Mean ODF	21.6230	9.8501	4.5578	1.5677
Real ODF	7.5489	1.4533	0.5905	0.0000

Table 3: Weights=[0.3, 0.7], SNR=10, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0193	0.0245	0.0174	0.0178
Estimated magnitude DWI	0.0215	0.0237	0.0159	0.0184
Mean ODF	0.0570	0.0531	0.0519	0.0421
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.8578	0.7989	1.6672	1.3390
Estimated magnitude DWI	0.7066	0.6873	1.8626	1.2904
Mean ODF	0.7664	0.7598	0.6173	1.2376
Real ODF	2.3505	0.8055	1.0456	0.0454

Table 4: Weights=[0.3, 0.7], SNR=10, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0166	0.0148	0.0110	0.0048
Estimated magnitude DWI	0.0186	0.0354	0.0060	0.0022
Mean ODF	0.3015	0.2406	0.1832	0.1760
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	8.2643	1.3071	0.9532	0.0729
Estimated magnitude DWI	8.6019	5.1897	0.2252	0.0000
Mean ODF	20.0920	9.1979	3.1785	0.8610
Real ODF	7.5489	1.4533	0.5905	0.0000

Table 5: Weights=[0.3, 0.7], SNR=25, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0059	0.0074	0.0081	0.0069
Estimated magnitude DWI	0.0060	0.0075	0.0081	0.0071
Mean ODF	0.0127	0.0127	0.0171	0.0132
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	2.6543	1.3017	0.7573	0.3469
Estimated magnitude DWI	2.6584	1.2577	0.7687	0.3605
Mean ODF	2.6529	1.0163	0.7414	0.3301
Real ODF	2.3505	0.8055	1.0456	0.0454

Table 6: Weights=[0.3, 0.7], SNR=25, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0025	0.0062	0.0036	0.0006
Estimated magnitude DWI	0.0039	0.0032	0.0051	0.0001
Mean ODF	0.0954	0.0543	0.0298	0.0209
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	7.6087	2.1309	0.7054	0.0000
Estimated magnitude DWI	7.7855	1.8125	0.4115	0.0000
Mean ODF	16.4658	5.2960	2.1091	0.2788
Real ODF	7.5489	1.4533	0.5905	0.0000

Table 7: Weights=[0.3, 0.7], SNR=50, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0049	0.0036	0.0046	0.0032
Estimated magnitude DWI	0.0049	0.0036	0.0046	0.0032
Mean ODF	0.0065	0.0040	0.0067	0.0063
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	1.9241	0.7201	1.1393	0.0539
Estimated magnitude DWI	1.9216	0.7169	1.1341	0.0481
Mean ODF	1.8981	0.6798	0.9238	0.0743
Real ODF	2.3505	0.8055	1.0456	0.0454

Table 8: Weights=[0.3, 0.7], SNR=50, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0038	0.0009	0.0019	0.0011
Estimated magnitude DWI	0.0040	0.0007	0.0019	0.0011
Mean ODF	0.0302	0.0183	0.0113	0.0073
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	7.7453	1.5348	0.7248	0.0000
Estimated magnitude DWI	7.7586	1.5112	0.7142	0.0000
Mean ODF	11.6466	3.3246	1.2356	0.3454
Real ODF	7.5489	1.4533	0.5905	0.0000

Table 9: Weights=[0.3, 0.7], SNR=100, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0021	0.0021	0.0013	0.0016
Estimated magnitude DWI	0.0021	0.0021	0.0013	0.0016
Mean ODF	0.0021	0.0021	0.0026	0.0021
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	2.3672	0.8874	1.0600	0.0427
Estimated magnitude DWI	2.3602	0.8890	1.0588	0.0445
Mean ODF	2.3676	0.8894	0.9834	0.0499
Real ODF	2.3505	0.8055	1.0456	0.0454

Table 10: Weights=[0.3, 0.7], SNR=100, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0012	0.0009	0.0006	0.0007
Estimated magnitude DWI	0.0014	0.0008	0.0006	0.0008
Mean ODF	0.0056	0.0065	0.0033	0.0015
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	7.5268	1.4440	0.6311	0.0000
Estimated magnitude DWI	7.5175	1.4253	0.6333	0.0000
Mean ODF	8.3893	2.1992	0.8113	0.0905
Real ODF	7.5489	1.4533	0.5905	0.0000

Table 11: Weights=[0.4, 0.6], SNR=5, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0422	0.0324	0.0421	0.0286
Estimated magnitude DWI	0.0476	0.0471	0.0565	0.0312
Mean ODF	0.1506	0.1397	0.1101	0.1066
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	2.2147	1.5248	1.1929	1.2572
Estimated magnitude DWI	5.9684	3.6049	0.5449	0.9307
Mean ODF	12.6664	1.5737	1.4061	0.9570
Real ODF	1.4188	0.7287	0.9509	0.0410

Table 12: Weights=[0.4, 0.6], SNR=5, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0567	0.0213	0.0225	0.0184
Estimated magnitude DWI	0.0508	0.0216	0.0192	0.0156
Mean ODF	0.4547	0.3847	0.3289	0.3181
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	8.1768	2.4695	1.5672	1.0190
Estimated magnitude DWI	13.4020	3.1005	2.0663	0.7242
Mean ODF	15.7458	7.6367	4.6505	1.8161
Real ODF	5.3529	0.8587	0.2252	0.0000

Table 13: Weights=[0.4, 0.6], SNR=10, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0203	0.0117	0.0201	0.0136
Estimated magnitude DWI	0.0238	0.0104	0.0201	0.0146
Mean ODF	0.0560	0.0525	0.0460	0.0443
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	2.4942	0.6949	1.5500	1.2275
Estimated magnitude DWI	2.6709	0.4529	1.6369	1.4555
Mean ODF	2.5472	0.8499	1.2774	1.6199
Real ODF	1.4188	0.7287	0.9509	0.0410

Table 14: Weights=[0.4, 0.6], SNR=10, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0122	0.0010	0.0099	0.0025
Estimated magnitude DWI	0.0210	0.0111	0.0143	0.0052
Mean ODF	0.3020	0.2184	0.1744	0.1579
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	6.4851	0.8587	0.6541	0.0000
Estimated magnitude DWI	9.9844	1.2576	0.7147	0.1135
Mean ODF	19.2876	4.0246	2.2308	0.9365
Real ODF	5.3529	0.8587	0.2252	0.0000

Table 15: Weights=[0.4, 0.6], SNR=25, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0092	0.0064	0.0091	0.0090
Estimated magnitude DWI	0.0095	0.0068	0.0090	0.0088
Mean ODF	0.0149	0.0140	0.0178	0.0141
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.7277	0.5678	0.9531	0.2436
Estimated magnitude DWI	0.6773	0.5641	0.9529	0.2330
Mean ODF	0.5001	0.3662	0.6405	0.2044
Real ODF	1.4188	0.7287	0.9509	0.0410

Table 16: Weights=[0.4, 0.6], SNR=25, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0111	0.0005	0.0030	0.0010
Estimated magnitude DWI	0.0160	0.0007	0.0030	0.0011
Mean ODF	0.0870	0.0451	0.0302	0.0164
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	3.3619	0.8908	0.3638	0.0000
Estimated magnitude DWI	3.7103	0.9063	0.3476	0.0000
Mean ODF	9.0582	2.5745	1.1581	0.4352
Real ODF	5.3529	0.8587	0.2252	0.0000

Table 17: Weights=[0.4, 0.6], SNR=50, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0047	0.0039	0.0025	0.0032
Estimated magnitude DWI	0.0048	0.0038	0.0026	0.0032
Mean ODF	0.0062	0.0045	0.0066	0.0067
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	1.4551	0.7944	0.9880	0.1958
Estimated magnitude DWI	1.4627	0.7878	0.9896	0.1945
Mean ODF	1.4285	0.7287	0.8088	0.1863
Real ODF	1.4188	0.7287	0.9509	0.0410

Table 18: Weights=[0.4, 0.6], SNR=50, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0052	0.0001	0.0020	0.0006
Estimated magnitude DWI	0.0023	0.0001	0.0020	0.0006
Mean ODF	0.0224	0.0088	0.0088	0.0041
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	6.2046	0.8587	0.2252	0.0000
Estimated magnitude DWI	5.4001	0.8587	0.2252	0.0000
Mean ODF	7.0011	1.5714	0.4018	0.1472
Real ODF	5.3529	0.8587	0.2252	0.0000

Table 19: Weights=[0.4, 0.6], SNR=100, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0016	0.0021	0.0021	0.0018
Estimated magnitude DWI	0.0016	0.0021	0.0021	0.0018
Mean ODF	0.0021	0.0022	0.0028	0.0023
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	1.3065	0.7797	1.0124	0.0942
Estimated magnitude DWI	1.3100	0.7809	1.0127	0.0936
Mean ODF	1.3059	0.7788	0.9279	0.1015
Real ODF	1.4188	0.7287	0.9509	0.0410

Table 20: Weights=[0.4, 0.6], SNR=100, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0010	0.0002	0.0008	0.0000
Estimated magnitude DWI	0.0005	0.0002	0.0009	0.0000
Mean ODF	0.0030	0.0024	0.0039	0.0013
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	5.1977	0.8587	0.2252	0.0000
Estimated magnitude DWI	5.4243	0.8587	0.2252	0.0000
Mean ODF	5.2920	1.0251	0.3650	0.0679
Real ODF	5.3529	0.8587	0.2252	0.0000

Table 21: Weights=[0.5, 0.5], SNR=5, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0582	0.0239	0.0352	0.0325
Estimated magnitude DWI	0.0687	0.0619	0.0443	0.0361
Mean ODF	0.1563	0.1296	0.1174	0.1121
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	7.6098	1.1981	0.5690	1.3630
Estimated magnitude DWI	7.6644	1.5809	0.8294	2.1524
Mean ODF	9.4321	1.3557	1.2649	2.2415
Real ODF	0.7470	0.7600	0.8990	0.0417

Table 22: Weights=[0.5, 0.5], SNR=5, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0251	0.0199	0.0163	0.0207
Estimated magnitude DWI	0.1186	0.0219	0.0503	0.0291
Mean ODF	0.4597	0.3782	0.3154	0.3162
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	3.1341	0.5198	0.4464	0.7784
Estimated magnitude DWI	25.3033	1.3109	2.5528	0.1678
Mean ODF	26.2935	3.2991	2.3906	1.7632
Real ODF	4.5121	0.9705	0.2252	0.0000

Table 23: Weights=[0.5, 0.5], SNR=10, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0190	0.0123	0.0153	0.0296
Estimated magnitude DWI	0.0209	0.0121	0.0166	0.0300
Mean ODF	0.0524	0.0492	0.0443	0.0422
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.6656	1.8363	0.8077	1.2796
Estimated magnitude DWI	0.8260	1.6871	0.9409	1.1671
Mean ODF	0.5161	1.5583	0.3980	0.8796
Real ODF	0.7470	0.7600	0.8990	0.0417

Table 24: Weights=[0.5, 0.5], SNR=10, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0054	0.0058	0.0142	0.0041
Estimated magnitude DWI	0.0284	0.0058	0.0107	0.0100
Mean ODF	0.2990	0.2241	0.1738	0.1499
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	4.6343	0.8538	0.2716	0.0000
Estimated magnitude DWI	4.7433	0.9824	0.1406	0.4886
Mean ODF	5.4108	0.7428	1.6392	0.6969
Real ODF	4.5121	0.9705	0.2252	0.0000

Table 25: Weights=[0.5, 0.5], SNR=25, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0096	0.0095	0.0055	0.0085
Estimated magnitude DWI	0.0100	0.0101	0.0052	0.0086
Mean ODF	0.0171	0.0178	0.0157	0.0161
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.3710	0.5737	0.8454	0.3946
Estimated magnitude DWI	0.4177	0.5709	0.8335	0.4262
Mean ODF	0.3685	0.4225	0.5348	0.3387
Real ODF	0.7470	0.7600	0.8990	0.0417

Table 26: Weights=[0.5, 0.5], SNR=25, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0058	0.0026	0.0023	0.0008
Estimated magnitude DWI	0.0115	0.0022	0.0032	0.0008
Mean ODF	0.0998	0.0426	0.0211	0.0158
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	4.4891	0.8587	0.2252	0.0000
Estimated magnitude DWI	4.3271	0.8636	0.2252	0.0000
Mean ODF	4.6028	0.7885	0.3749	0.4545
Real ODF	4.5121	0.9705	0.2252	0.0000

Table 27: Weights=[0.5, 0.5], SNR=50, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0035	0.0034	0.0036	0.0033
Estimated magnitude DWI	0.0036	0.0034	0.0035	0.0033
Mean ODF	0.0078	0.0057	0.0071	0.0057
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.6820	0.7886	0.8062	0.0742
Estimated magnitude DWI	0.7014	0.7825	0.8042	0.0757
Mean ODF	0.6038	0.7273	0.6871	0.0784
Real ODF	0.7470	0.7600	0.8990	0.0417

Table 28: Weights=[0.5, 0.5], SNR=50, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0096	0.0023	0.0012	0.0040
Estimated magnitude DWI	0.0112	0.0022	0.0010	0.0041
Mean ODF	0.0176	0.0089	0.0090	0.0053
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	4.3940	0.8759	0.1963	0.0000
Estimated magnitude DWI	4.3776	0.8901	0.2035	0.0000
Mean ODF	3.8459	0.8083	0.2360	0.1589
Real ODF	4.5121	0.9705	0.2252	0.0000

Table 29: Weights=[0.5, 0.5], SNR=100, b -value=1500

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0022	0.0021	0.0022	0.0022
Estimated magnitude DWI	0.0022	0.0021	0.0022	0.0022
Mean ODF	0.0029	0.0022	0.0019	0.0030
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.6057	0.7941	0.8969	0.0674
Estimated magnitude DWI	0.5979	0.7932	0.8952	0.0674
Mean ODF	0.5694	0.7882	0.8467	0.0621
Real ODF	0.7470	0.7600	0.8990	0.0417

Table 30: Weights=[0.5, 0.5], SNR=100, b -value=3000

Fisher-Rao distances to the real ODF				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	0.0016	0.0005	0.0001	0.0002
Estimated magnitude DWI	0.0015	0.0004	0.0001	0.0002
Mean ODF	0.0018	0.0015	0.0023	0.0013
Direction deviation				
Methods \ Separating angles	45°	60°	75°	90°
Mean complex DWI	4.5912	0.9920	0.2252	0.0000
Estimated magnitude DWI	4.5925	0.9915	0.2252	0.0000
Mean ODF	4.3899	1.0330	0.1584	0.0609
Real ODF	4.5121	0.9705	0.2252	0.0000