Red: Mean complex DWI
Black: Estimated magnitude DWI
Blue: Mean ODF

Table 1: SNR=5, b-value=1500

Fisher-Rao distances to the real ODF ($\times 10^{-2}$)

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	3.74	4.98	14.90	2.79	3.55	13.51	2.51	2.86	11.64	3.75	3.96	11.36
(0.4, 0.6)	4.22	4.76	15.06	3.24	4.71	13.97	4.21	5.65	11.01	2.86	3.12	10.66
(0.5, 0.5)	5.82	6.87	15.63	2.39	6.19	12.96	3.52	4.43	11.74	3.25	3.61	11.21

Direction deviation

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	9.51	16.21	17.13	1.92	3.21	2.11	1.70	1.88	1.33	2.61	2.93	3.76
(0.4, 0.6)	2.21	5.97	12.67	1.52	3.60	1.57	1.19	0.54	1.41	1.26	0.93	0.96
(0.5, 0.5)	7.61	7.66	9.43	1.20	1.58	1.36	0.57	0.83	1.26	1.36	2.15	2.24

Table 2: SNR=5, b-value=3000

Fisher-Rao distances to the real ODF ($\times 10^{-2}$)

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	3.55	4.25	46.20	2.68	4.67	39.27	3.17	1.77	35.99	3.06	7.97	34.90
(0.4, 0.6)	5.67	5.08	45.47	2.13	2.16	38.47	2.25	1.92	32.89	1.84	1.56	31.81
(0.5, 0.5)	2.51	11.86	45.97	1.99	2.19	37.82	1.63	5.03	31.54	2.07	2.91	31.62

Direction deviation

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	12.35	17.14	21.62	1.35	5.34	9.85	1.95	1.41	4.56	0.31	4.60	1.57
(0.4, 0.6)	8.18	13.40	15.75	2.47	3.10	7.64	1.57	2.07	4.65	1.02	0.72	1.82
(0.5, 0.5)	3.13	25.30	26.29	0.52	1.31	3.30	0.45	2.55	2.39	0.78	0.17	1.76

Table 3: SNR=10, b-value=1500

Fisher-Rao distances to the real ODF ($\times 10^{-2}$)

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	1.93	2.15	5.70	2.45	2.37	5.31	1.74	1.59	5.19	1.78	1.84	4.21
(0.4, 0.6)	2.03	2.38	5.60	1.17	1.04	5.25	2.01	2.01	4.60	1.36	1.46	4.43
(0.5, 0.5)	1.90	2.09	5.24	1.23	1.21	4.92	1.53	1.66	4.43	2.96	3.00	4.22

Direction deviation

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	0.86	0.71	0.77	0.80	0.69	0.76	1.67	1.86	0.62	1.34	1.29	1.24
(0.4, 0.6)	2.49	2.67	2.55	0.69	0.45	0.85	1.55	1.64	1.28	1.23	1.46	1.62
(0.5, 0.5)	0.67	0.83	0.52	1.84	1.69	1.56	0.81	0.94	0.40	1.28	1.17	0.88

Table 4: SNR=10, b-value=3000

Fisher-Rao distances to the real ODF ($\times 10^{-2}$)

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	1.66	1.86	30.15	1.48	3.54	24.06	1.10	0.60	18.32	0.48	0.22	17.60
(0.4, 0.6)	1.22	2.10	30.20	0.10	1.11	21.84	0.99	1.43	17.44	0.25	0.52	15.79
(0.5, 0.5)	0.54	2.84	29.90	0.58	0.58	22.41	1.42	1.07	17.38	0.41	1.00	14.99

Direction deviation

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	8.26	8.60	20.09	1.31	5.19	9.20	0.95	0.23	3.18	0.07	0.00	0.86
(0.4, 0.6)	6.49	9.98	19.29	0.86	1.26	4.02	0.65	0.71	2.23	0.00	0.11	0.94
(0.5, 0.5)	4.63	4.74	5.41	0.85	0.98	0.74	0.27	0.14	1.64	0.00	0.49	0.70

Table 5: SNR=25, b-value=1500

Fisher-Rao distances to the real ODF ($\times 10^{-2}$)

Weights	Separating angles	45°			60°			75°			90°		
(0.3, 0.7)		0.59	0.60	1.27	0.74	0.75	1.27	0.81	0.81	1.71	0.69	0.71	1.32
(0.4, 0.6)		0.92	0.95	1.49	0.64	0.68	1.40	0.91	0.90	1.78	0.90	0.88	1.41
(0.5, 0.5)		0.96	1.00	1.71	0.95	1.01	1.78	0.55	0.52	1.57	0.85	0.86	1.61

Direction deviation

Weights	Separating angles	45°			60°			75°			90°		
(0.3, 0.7)		2.65	2.66	2.65	1.30	1.26	1.02	0.76	0.77	0.74	0.35	0.36	0.33
(0.4, 0.6)		0.73	0.68	0.50	0.57	0.56	0.37	0.95	0.95	0.64	0.24	0.23	0.20
(0.5, 0.5)		0.37	0.42	0.37	0.57	0.57	0.42	0.85	0.83	0.53	0.39	0.43	0.34

Table 6: SNR=25, b-value=3000

Fisher-Rao distances to the real ODF ($\times 10^{-2}$)

Weights	Separating angles	45°			60°			75°			90°		
(0.3, 0.7)		0.25	0.39	9.54	0.62	0.32	5.43	0.36	0.51	2.98	0.06	0.01	2.09
(0.4, 0.6)		1.11	1.60	8.70	0.05	0.07	4.51	0.30	0.30	3.02	0.10	0.11	1.64
(0.5, 0.5)		0.58	1.15	9.98	0.26	0.22	4.26	0.23	0.32	2.11	0.08	0.08	1.58

Direction deviation

Weights	Separating angles	45°			60°			75°			90°		
(0.3, 0.7)		7.61	7.79	16.47	2.13	1.81	5.30	0.71	0.41	2.11	0.00	0.00	0.28
(0.4, 0.6)		3.36	3.71	9.06	0.89	0.91	2.57	0.36	0.35	1.16	0.00	0.00	0.44
(0.5, 0.5)		4.49	4.33	4.60	0.86	0.86	0.79	0.23	0.23	0.37	0.00	0.00	0.45

Table 7: SNR=50, b-value=1500

Fisher-Rao distances to the real ODF ($\times 10^{-2}$)

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	0.49	0.49	0.65	0.36	0.36	0.40	0.46	0.46	0.67	0.32	0.32	0.63
(0.4, 0.6)	0.47	0.48	0.62	0.39	0.38	0.45	0.25	0.26	0.66	0.32	0.32	0.67
(0.5, 0.5)	0.35	0.36	0.78	0.34	0.34	0.57	0.36	0.35	0.71	0.33	0.33	0.57

Direction deviation

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	1.92	1.92	1.90	0.72	0.72	0.68	1.14	1.13	0.92	0.05	0.05	0.07
(0.4, 0.6)	1.46	1.46	1.43	0.79	0.79	0.73	0.99	0.99	0.81	0.20	0.19	0.19
(0.5, 0.5)	0.68	0.70	0.60	0.79	0.78	0.73	0.81	0.80	0.69	0.07	0.08	0.08

Table 8: SNR=50, b-value=3000

Fisher-Rao distances to the real ODF ($\times 10^{-2}$)

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	0.38	0.40	3.02	0.09	0.07	1.83	0.19	0.19	1.13	0.11	0.11	0.73
(0.4, 0.6)	0.52	0.23	2.24	0.01	0.01	0.88	0.20	0.20	0.88	0.06	0.06	0.41
(0.5, 0.5)	0.96	1.12	1.76	0.23	0.22	0.89	0.12	0.10	0.90	0.40	0.41	0.53

Direction deviation

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	7.75	7.76	11.65	1.53	1.51	3.32	0.72	0.71	1.24	0.00	0.00	0.35
(0.4, 0.6)	6.20	5.40	7.00	0.86	0.86	1.57	0.23	0.23	0.40	0.00	0.00	0.15
(0.5, 0.5)	4.39	4.38	3.85	0.88	0.89	0.81	0.20	0.20	0.24	0.00	0.00	0.16

Table 9: SNR=100, b-value=1500

Fisher-Rao distances to the real ODF ($\times 10^{-2}$)

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	0.21	0.21	0.21	0.21	0.21	0.21	0.13	0.13	0.26	0.16	0.16	0.21
(0.4, 0.6)	0.16	0.16	0.21	0.21	0.21	0.22	0.21	0.21	0.28	0.18	0.18	0.23
(0.5, 0.5)	0.22	0.22	0.29	0.21	0.21	0.22	0.22	0.22	0.19	0.22	0.22	0.30

Direction deviation

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	2.37	2.36	2.37	0.89	0.89	0.89	1.06	1.06	0.98	0.04	0.04	0.05
(0.4, 0.6)	1.31	1.31	1.31	0.78	0.78	0.78	1.01	1.01	0.93	0.09	0.09	0.10
(0.5, 0.5)	0.61	0.60	0.57	0.79	0.79	0.79	0.90	0.90	0.85	0.07	0.07	0.06

Table 10: SNR=100, b-value=3000

Fisher-Rao distances to the real ODF ($\times 10^{-2}$)

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	0.12	0.14	0.56	0.09	0.08	0.65	0.06	0.06	0.33	0.07	0.08	0.15
(0.4, 0.6)	0.10	0.05	0.30	0.02	0.02	0.24	0.08	0.09	0.39	0.00	0.00	0.13
(0.5, 0.5)	0.16	0.15	0.18	0.05	0.04	0.15	0.01	0.01	0.23	0.02	0.02	0.13

Direction deviation

Weights \ Separating angles	45°			60°			75°			90°		
(0.3, 0.7)	7.53	7.52	8.39	1.44	1.43	2.20	0.63	0.63	0.81	0.00	0.00	0.09
(0.4, 0.6)	5.20	5.42	5.29	0.86	0.86	1.03	0.23	0.23	0.36	0.00	0.00	0.07
(0.5, 0.5)	4.59	4.59	4.39	0.99	0.99	1.03	0.23	0.23	0.16	0.00	0.00	0.06