SINGLE DIPOLE

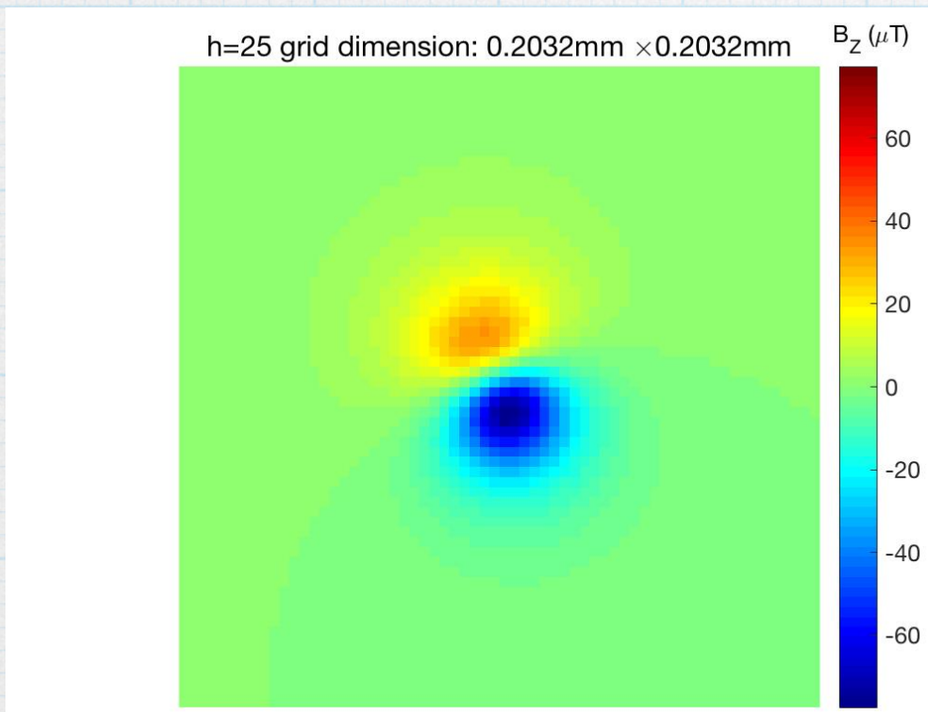
magnetization direction

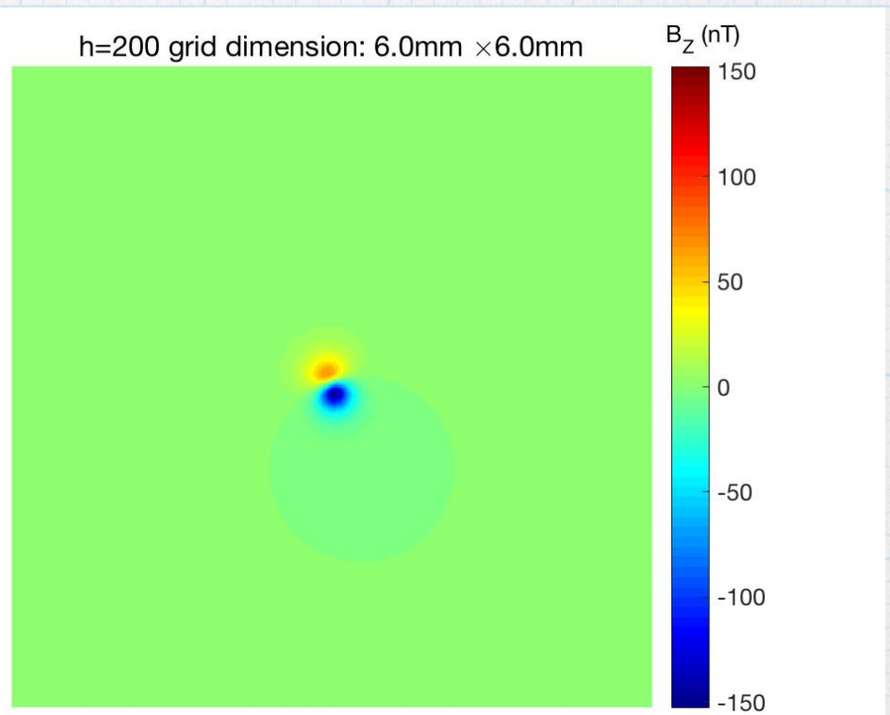
θ=110° ψ=110°

(θ=90° is the horizontal plane)

magnetization strength

$$moment = 1 \times 10^{-11} Am^{-2}$$





h=25 size=1 start_fit=0.06e-3 stop_fit=0.09e-3

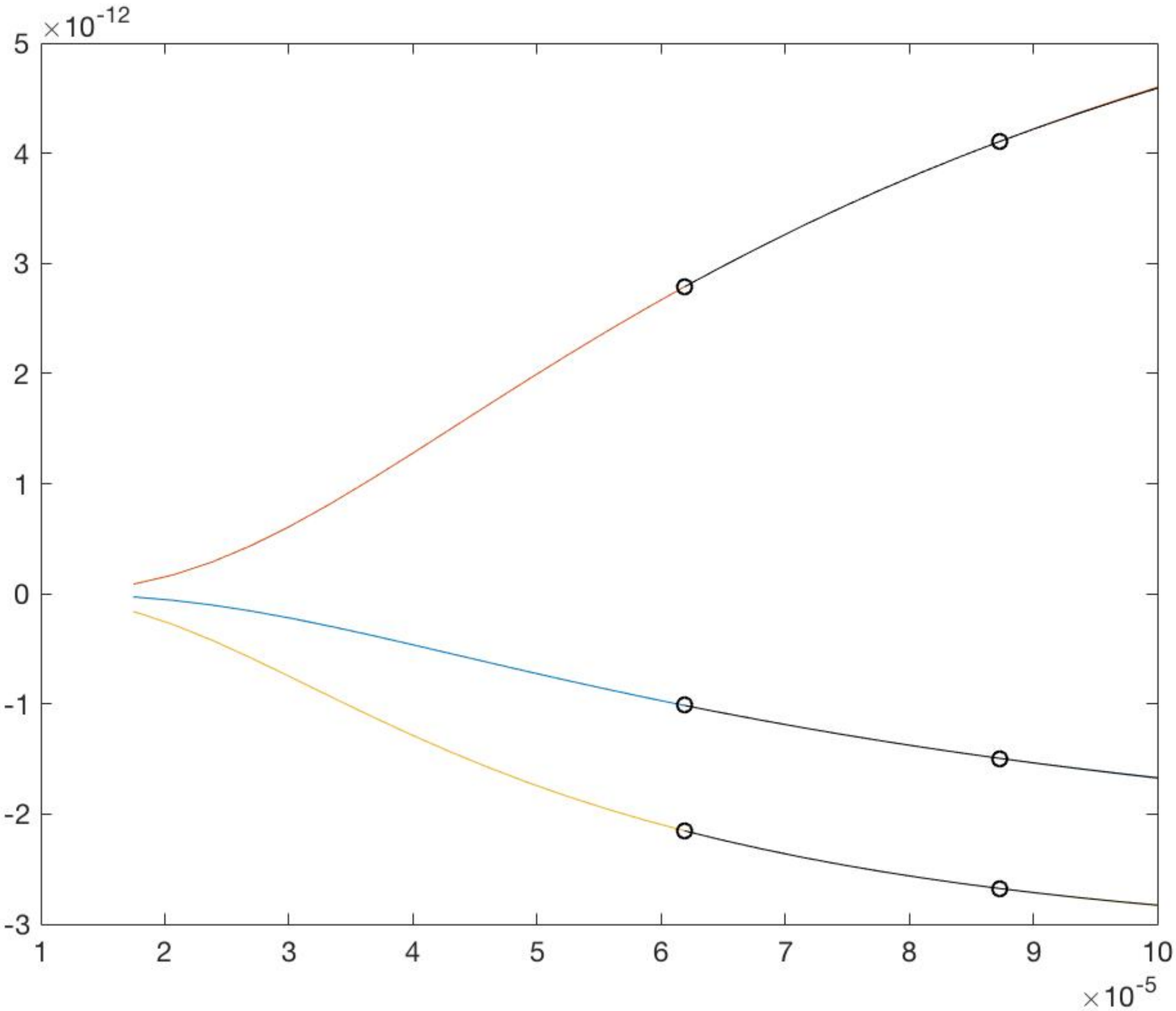
SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.0858	0.0939	0.0975	0.0959	0.0962	0.0962	0.0962
Stdn/(x10^-11)	0.4664	0.1601	0.0436	0.0131	0.0048	0.0012	0.0005
Errm	-7.61%	-5.66%	-2.40%	-4.09%	-3.83%	-3.83%	-3.83%
Stdm	29.37%	12.73%	2.54%	0.94%	0.19%	0.09%	0.02%
stanx/(x10^-11)	0.2532	0.0464	0.0348	0.0092	0.0036	0.0008	0.0003
stany/(x10^-11)	0.3089	0.1164	0.0192	0.0078	0.0020	0.0009	0.0002
stanz/(x10^-11)	0.2409	0.0997	0.0177	0.0051	0.0025	0.0005	0.0002
Errv	41.45%	16.34%	4.55%	4.26%	3.96%	3.93%	3.94%
Stdv	22.35%	4.61%	2.03%	0.88%	0.19%	0.09%	0.02%
Errd	1.6818	2.5231	0.6476	0.4230	0.5424	0.5201	0.5347
Stdd	13.7501	1.8144	0.9861	0.3464	0.1621	0.0346	0.0142

h=25 size=3 start_fit=0.14e-3 stop_fit=0.23e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.0670	0.0971	0.0994	0.0992	0.1000	0.0999	0.0999
Stdn/(x10^-11)	0.6246	0.1945	0.0617	0.0246	0.0075	0.0021	0.0009
Errm	-18.63%	-1.48%	-0.45%	-0.82%	0.00%	-0.06%	-0.08%
Stdm	39.21%	8.25%	2.75%	1.19%	0.51%	0.09%	0.06%
stanx/(x10^-11)	0.3326	0.1191	0.0438	0.0135	0.0033	0.0017	0.0006
stany/(x10^-11)	0.4139	0.0955	0.0360	0.0170	0.0059	0.0009	0.0006
stanz/(x10^-11)	0.3289	0.1205	0.0244	0.0115	0.0032	0.0010	0.0002
Errv	65.78%	19.01%	5.11%	2.43%	0.70%	0.21%	0.10%
Stdv	20.13%	6.48%	3.23%	0.74%	0.28%	0.08%	0.05%
Errd	6.7695	4.1108	0.5363	0.3090	0.1322	0.0425	0.0086
Stdd	14.3135	4.2837	1.8209	0.5524	0.1571	0.0522	0.0169

h=25 size=5 start_fit=0.23e-3 stop_fit=0.37e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.0903	0.1031	0.0988	0.0998	0.0997	0.1000	0.1000
Stdn/(x10^-11)	1.0972	0.3217	0.1658	0.0323	0.0121	0.0034	0.0012
Errm	33.26%	5.73%	-0.44%	-0.22%	-0.34%	0.04%	-0.01%
Stdm	37.02%	20.68%	10.43%	2.09%	0.78%	0.19%	0.09%
stanx/(x10^-11)	0.7821	0.2001	0.0923	0.0153	0.0070	0.0017	0.0006
stany/(x10^-11)	0.5554	0.2056	0.1045	0.0184	0.0089	0.0020	0.0009
stanz/(x10^-11)	0.5325	0.1455	0.0898	0.0216	0.0042	0.0022	0.0004
Errv	92.13%	30.39%	14.93%	2.90%	1.13%	0.31%	0.10%
Stdv	53.53%	11.35%	5.87%	1.15%	0.50%	0.10%	0.04%
Errd	7.1109	5.5891	1.3043	0.2440	0.1566	0.0368	0.0025
Stdd	28.7218	6.0463	2.8248	0.4748	0.1705	0.0517	0.0127


×10^-12
5
4
3
2
1
0
-1
-2
-3
1
2
3
4
5
6
7
8
9
10
×10^-5

h=200 size=1 start_fit=0.40e-3 stop_fit=0.58e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.0977	0.0922	0.0923	0.0921	0.0921	0.0920	0.0920
Stdn/(x10^-11)	0.3051	0.0899	0.0296	0.0127	0.0031	0.0010	0.0004
Errm	0.55%	-7.69%	-7.64%	-7.87%	-7.93%	-7.98%	-7.98%
Stdm	17.66%	7.11%	1.56%	0.53%	0.13%	0.06%	0.02%
stanx/(x10^-11)	0.2153	0.0632	0.0209	0.0094	0.0019	0.0007	0.0003
stany/(x10^-11)	0.1583	0.0533	0.0146	0.0054	0.0017	0.0005	0.0002
stanz/(x10^-11)	0.1472	0.0354	0.0149	0.0066	0.0017	0.0005	0.0002
Errv	30.85%	11.99%	8.11%	8.16%	8.11%	8.17%	8.17%
Stdv	8.99%	3.41%	1.46%	0.56%	0.14%	0.06%	0.02%
Errd	7.8166	2.6739	0.6079	1.1009	1.0189	1.0471	1.0444
Stdd	6.5976	1.5276	0.7941	0.2797	0.1147	0.0338	0.0121

h=200 size=3 start_fit=1.00e-3 stop_fit=1.60e-3

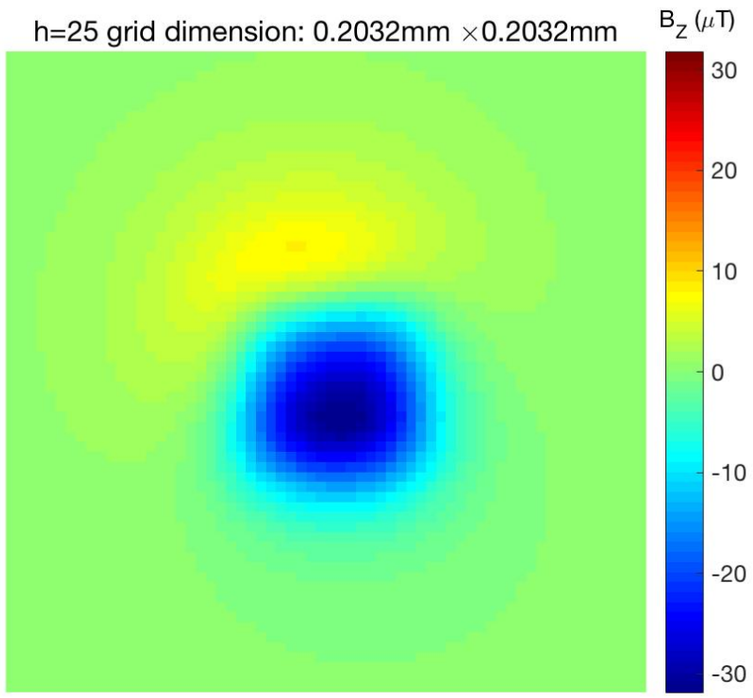
SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.0969	0.1021	0.0998	0.1001	0.1000	0.0999	0.0999
Stdn/(x10^-11)	0.6107	0.1725	0.0586	0.0210	0.0055	0.0018	0.0006
Errm	9.32%	2.97%	-0.13%	0.07%	0.05%	-0.13%	-0.14%
Stdm	29.71%	9.61%	3.07%	1.22%	0.34%	0.10%	0.04%
stanx/(x10^-11)	0.4169	0.1099	0.0413	0.0145	0.0022	0.0007	0.0003
stany/(x10^-11)	0.3091	0.0835	0.0272	0.0122	0.0044	0.0011	0.0004
stanz/(x10^-11)	0.3220	0.1035	0.0314	0.0091	0.0024	0.0012	0.0003
Errv	55.79%	17.65%	5.05%	1.90%	0.49%	0.21%	0.15%
Stdv	22.12%	7.27%	2.45%	0.67%	0.25%	0.08%	0.04%
Errd	7.9515	5.2902	0.0416	0.1031	0.0830	0.0323	0.0228
Stdd	12.7710	3.9550	1.4978	0.3952	0.1250	0.0451	0.0087

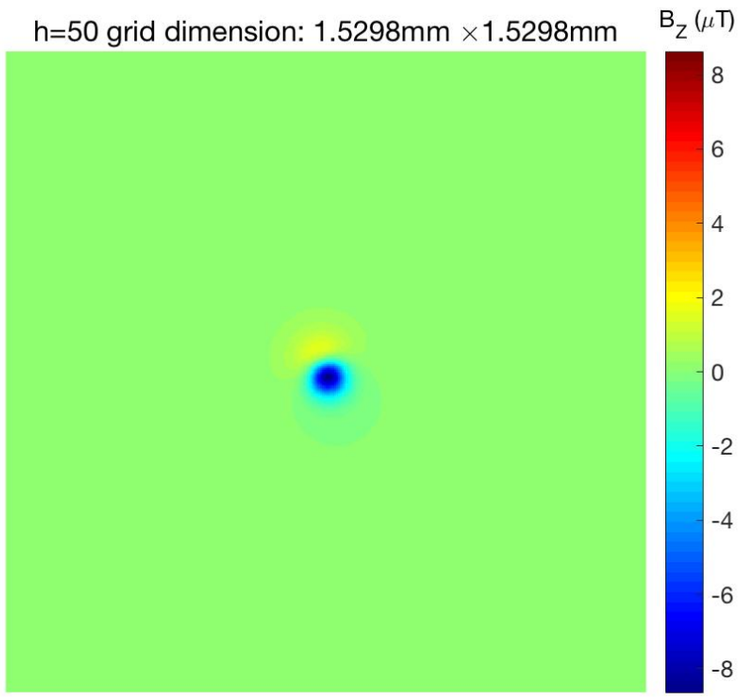
h=200 size=5 start_fit=1.80e-3 stop_fit=2.80e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1117	0.1136	0.0972	0.1009	0.1001	0.1000	0.1000
Stdn/(x10^-11)	1.1390	0.3405	0.1079	0.0405	0.0112	0.0033	0.0010
Errm	36.03%	16.06%	-2.33%	0.95%	0.10%	0.05%	0.00%
Stdm	79.23%	22.96%	4.78%	2.10%	0.78%	0.19%	0.06%
stanx/(x10^-11)	0.5909	0.2092	0.0870	0.0306	0.0065	0.0016	0.0006
stany/(x10^-11)	0.7205	0.2090	0.0549	0.0222	0.0069	0.0022	0.0008
stanz/(x10^-11)	0.6550	0.1689	0.0324	0.0144	0.0060	0.0019	0.0004
Errv	97.72%	33.56%	10.04%	3.86%	0.98%	0.31%	0.09%
Stdv	57.96%	14.38%	4.98%	1.49%	0.46%	0.12%	0.03%
Errd	14.9841	4.9409	1.8997	0.6640	0.0889	0.0480	0.0022
Stdd	25.6279	6.5281	2.9788	0.9093	0.1920	0.0521	0.0110

MAGNETIZED SQUARE

50μm x 50μm square
magnetization direction
θ=135° ψ=110°
magnetization strength
$m = 1 \times 10^{-11} Am^{-2}$





h=25 size=1 start_fit=0.060e-3 stop_fit=0.095e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1094	0.1025	0.1049	0.1047	0.1046	0.1046	0.1046
Stdn/(x10^-11)	0.3480	0.0831	0.0260	0.0094	0.0031	0.0007	0.0003
Errm	12.28%	2.76%	4.93%	4.72%	4.56%	4.63%	4.61%
Stdm	22.52%	4.16%	1.68%	0.74%	0.21%	0.04%	0.02%
stanx/(x10^-11)	0.2094	0.0549	0.0142	0.0034	0.0016	0.0005	0.0001
stany/(x10^-11)	0.2150	0.0505	0.0184	0.0080	0.0019	0.0004	0.0002
stanz/(x10^-11)	0.1762	0.0366	0.0116	0.0036	0.0018	0.0004	0.0002
Errv	32.21%	8.83%	5.32%	4.79%	4.62%	4.68%	4.66%
Stdv	13.45%	2.45%	1.80%	0.76%	0.21%	0.04%	0.02%
Errd	2.5644	2.1821	0.5351	0.3551	0.3957	0.3972	0.3876
Stdd	7.5316	1.5611	0.6312	0.1458	0.0710	0.0249	0.0099

h=25 size=3 start_fit=0.080e-3 stop_fit=0.240e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1034	0.1011	0.1002	0.1000	0.1002	0.1002	0.1002
Stdn/(x10^-11)	0.2067	0.0522	0.0183	0.0055	0.0017	0.0004	0.0001
Errm	4.79%	1.22%	0.18%	-0.03%	0.22%	0.23%	0.23%
Stdm	10.69%	3.50%	1.13%	0.33%	0.09%	0.02%	0.01%
stanx/(x10^-11)	0.1525	0.0279	0.0063	0.0029	0.0008	0.0002	0.0001
stany/(x10^-11)	0.1018	0.0252	0.0096	0.0037	0.0009	0.0003	0.0001
stanz/(x10^-11)	0.0954	0.0363	0.0143	0.0028	0.0012	0.0002	0.0001
Errv	19.83%	5.03%	1.64%	0.59%	0.35%	0.36%	0.36%
Stdv	7.38%	1.57%	0.81%	0.15%	0.10%	0.01%	0.01%
Errd	3.8136	0.7336	0.2654	0.1765	0.1351	0.1569	0.1639
Stdd	3.8804	1.0950	0.4296	0.1038	0.0754	0.0177	0.0049

h=25 size=5 start_fit=0.230e-3 stop_fit=0.370e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1040	0.0995	0.0999	0.1000	0.1001	0.1000	0.1000
Stdn/(x10^-11)	0.1827	0.0645	0.0204	0.0062	0.0018	0.0007	0.0002
Errm	4.91%	-0.36%	-0.11%	-0.02%	0.06%	0.00%	0.02%
Stdm	10.78%	3.61%	1.15%	0.36%	0.09%	0.04%	0.01%
stanx/(x10^-11)	0.0872	0.0473	0.0100	0.0018	0.0011	0.0005	0.0001
stany/(x10^-11)	0.1418	0.0257	0.0107	0.0038	0.0012	0.0004	0.0001
stanz/(x10^-11)	0.0754	0.0355	0.0142	0.0046	0.0006	0.0002	0.0001
Errv	16.59%	6.73%	1.77%	0.58%	0.17%	0.08%	0.06%
Stdv	9.92%	2.25%	0.89%	0.25%	0.08%	0.02%	0.01%
Errd	3.8751	2.0034	0.1777	0.1229	0.0364	0.0329	0.0347
Stdd	5.1130	1.2235	0.4868	0.1870	0.0323	0.0136	0.0043

h=50 size=1 start_fit=0.07e-3 stop_fit=0.15e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.0949	0.0928	0.0934	0.0944	0.0943	0.0943	0.0943
Stdn/(x10^-11)	0.0959	0.0487	0.0135	0.0394	0.0125	0.0004	0.0001
Errm	-4.92%	-7.09%	-6.04%	-5.59%	-5.69%	-5.70%	-5.70%
Stdm	4.54%	2.88%	0.80%	0.18%	0.09%	0.03%	0.01%
stanx/(x10^-11)	0.0616	0.0346	0.0094	0.0019	0.0006	0.0002	0.0001
stany/(x10^-11)	0.0394	0.0212	0.0066	0.0024	0.0008	0.0002	0.0001
stanz/(x10^-11)	0.0620	0.0268	0.0071	0.0025	0.0008	0.0002	0.0001
Errv	10.11%	10.77%	8.81%	8.38%	8.41%	8.37%	8.38%
Stdv	5.67%	2.24%	0.77%	0.22%	0.09%	0.02%	0.01%
Errd	2.6774	4.1118	3.7398	3.6737	3.6542	3.6148	3.6213
Stdd	3.2051	1.2135	0.4289	0.1660	0.0489	0.0078	0.0046

h=50 size=3 start_fit=0.15e-3 stop_fit=0.45e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1022	0.1024	0.1000	0.0998	0.1000	0.1000	0.1000
Stdn/(x10^-11)	0.2374	0.0665	0.0218	0.0054	0.0017	0.0008	0.0002
Errm	3.98%	2.52%	-0.03%	-0.16%	-0.01%	0.00%	0.01%
Stdm	12.61%	4.41%	1.53%	0.25%	0.10%	0.04%	0.01%
stanx/(x10^-11)	0.1254	0.0429	0.0113	0.0013	0.0009	0.0005	0.0001
stany/(x10^-11)	0.1150	0.0349	0.0101	0.0034	0.0009	0.0004	0.0001
stanz/(x10^-11)	0.1655	0.0369	0.0157	0.0041	0.0011	0.0004	0.0001
Errv	21.80%	7.31%	2.00%	0.53%	0.21%	0.20%	0.10%
Stdv	7.42%	2.50%	0.74%	0.17%	0.10%	0.04%	0.01%
Errd	2.0222	2.0731	0.2598	0.0810	0.0944	0.1111	0.1107
Stdd	4.5666	1.5612	0.3101	0.1214	0.0657	0.0213	0.0074

h=50 size=5 start_fit=0.15e-3 stop_fit=0.70e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1008	0.1008	0.0994	0.0999	0.1000	0.1000	0.1000
Stdn/(x10^-11)	0.1721	0.0537	0.0173	0.0068	0.0016	0.0004	0.0002
Errm	1.45%	0.82%	-0.64%	-0.05%	0.03%	0.00%	0.01%
Stdm	12.66%	3.93%	1.20%	0.31%	0.10%	0.01%	0.01%
stanx/(x10^-11)	0.0599	0.0360	0.0069	0.0047	0.0008	0.0003	0.0001
stany/(x10^-11)	0.1352	0.0330	0.0095	0.0025	0.0009	0.0001	0.0001
stanz/(x10^-11)	0.0880	0.0223	0.0127	0.0042	0.0010	0.0001	0.0001
Errv	15.23%	4.69%	1.67%	0.61%	0.20%	0.11%	0.09%
Stdv	7.27%	2.25%	0.62%	0.28%	0.08%	0.02%	0.01%
Errd	1.9962	0.1300	0.0808	0.0971	0.0876	0.0597	0.0530
Stdd	3.5093	0.9801	0.2020	0.1481	0.0461	0.0104	0.0049

TWO DIPOLES

CONFIGURATION A

magnetization direction

θ1=110° ψ1=110°

θ2=90° ψ2=35°

magnetization strength

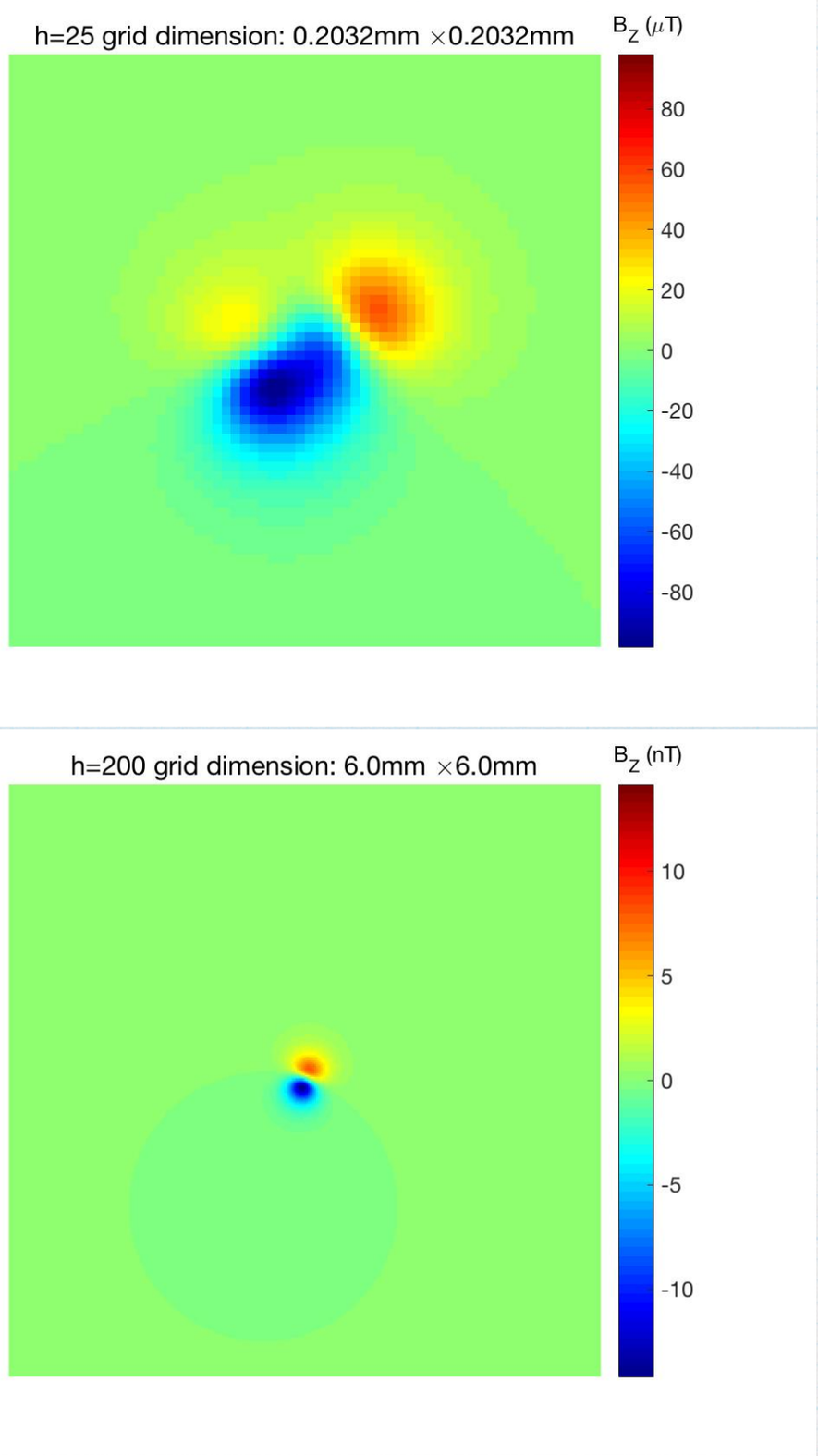
$m_1 = 1 \times 10^{-11} Am^{-2}$

$m_2 = 1 \times 10^{-11} Am^{-2}$

distance between dipoles

Δx=60μm Δy=24μm

Δz=0



h=25 size=1 start_fit=0.06e-3 stop_fit=0.09e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1511	0.1616	0.1631	0.1617	0.1623	0.1623	0.1623
Stdn/(x10^-11)	0.7567	0.2538	0.0624	0.0288	0.0085	0.0026	0.0008
Errm	2.52%	3.04%	3.44%	2.55%	2.90%	2.90%	2.93%
Stdm	28.83%	11.12%	2.75%	1.14%	0.33%	0.08%	0.02%
stanx/(x10^-11)	0.5024	0.1103	0.0324	0.0154	0.0046	0.0020	0.0005
stany/(x10^-11)	0.4454	0.1835	0.0429	0.0181	0.0050	0.0012	0.0005
stanz/(x10^-11)	0.3490	0.1362	0.0318	0.0163	0.0051	0.0013	0.0004
Errv	44.40%	14.72%	6.90%	5.27%	5.09%	5.04%	5.05%
Stdv	15.48%	6.09%	2.01%	0.98%	0.29%	0.12%	0.02%
Errd	5.7968	1.8646	2.8464	2.4789	2.3514	2.3253	2.3232
Stdd	9.8586	2.6005	0.7503	0.6009	0.1670	0.0675	0.0199

h=25 size=3 start_fit=0.14e-3 stop_fit=0.23e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1575	0.1627	0.1605	0.1571	0.1577	0.1579	0.1578
Stdn/(x10^-11)	1.0964	0.3381	0.1197	0.0373	0.0131	0.0035	0.0012
Errm	12.93%	4.08%	1.98%	-0.34%	0.02%	0.10%	0.08%
Stdm	41.81%	15.91%	3.86%	1.29%	0.54%	0.09%	0.04%
stanx/(x10^-11)	0.5762	0.1737	0.0462	0.0254	0.0087	0.0018	0.0006
stany/(x10^-11)	0.7797	0.2527	0.0638	0.0244	0.0081	0.0016	0.0005
stanz/(x10^-11)	0.5122	0.1423	0.0902	0.0123	0.0055	0.0025	0.0009
Errv	59.07%	19.13%	7.37%	2.12%	0.75%	0.23%	0.12%
Stdv	32.54%	9.60%	2.10%	1.29%	0.33%	0.07%	0.04%
Errd	5.5086	2.8238	1.0146	0.5268	0.1025	0.0446	0.0353
Stdd	42.6759	4.4648	0.8627	0.7638	0.1690	0.0586	0.0214

h=25 size=5 start_fit=0.23e-3 stop_fit=0.37e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1861	0.1419	0.1572	0.1564	0.1575	0.1578	0.1577
Stdn/(x10^-11)	1.8714	0.6230	0.1568	0.0565	0.0196	0.0069	0.0020
Errm	48.75%	-5.27%	0.01%	-0.78%	-0.12%	0.04%	-0.01%
Stdm	70.48%	24.12%	5.69%	2.27%	0.63%	0.24%	0.08%
stanx/(x10^-11)	1.0327	0.3605	0.0823	0.0347	0.0096	0.0036	0.0009
stany/(x10^-11)	0.9710	0.2885	0.1108	0.0272	0.0099	0.0047	0.0014
stanz/(x10^-11)	1.2218	0.4183	0.0745	0.0353	0.0140	0.0036	0.0012
Errv	106.24%	36.27%	8.60%	3.51%	1.11%	0.44%	0.14%
Stdv	52.24%	17.26%	4.10%	1.24%	0.45%	0.13%	0.03%
Errd	14.4290	5.3458	0.0353	0.6974	0.0368	0.1076	0.0416
Stdd	20.9432	9.2683	2.5698	0.7807	0.2933	0.0505	0.0276

h=200 size=1 start_fit=0.40e-3 stop_fit=0.58e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1332	0.1480	0.1448	0.1460	0.1454	0.1455	0.1455
Stdn/(x10^-11)	0.4657	0.1660	0.0640	0.0166	0.0067	0.0019	0.0004
Errm	-11.95%	-5.72%	-8.14%	-7.42%	-7.79%	-7.76%	-7.74%
Stdm	13.58%	4.27%	2.78%	0.59%	0.32%	0.05%	0.02%
stanx/(x10^-11)	0.2238	0.0781	0.0276	0.0067	0.0035	0.0010	0.0003
stany/(x10^-11)	0.2105	0.0772	0.0446	0.0091	0.0044	0.0009	0.0003
stanz/(x10^-11)	0.3500	0.1245	0.0367	0.0121	0.0037	0.0013	0.0002
Errv	32.16%	11.43%	8.86%	7.72%	8.03%	8.01%	7.99%
Stdv	12.07%	4.26%	2.88%	0.53%	0.29%	0.05%	0.02%
Errd	7.3567	1.7961	1.2163	1.1375	1.1448	1.1873	1.1847
Stdd	7.8272	2.8042	1.1793	0.4270	0.1186	0.0511	0.0092

h=200 size=3 start_fit=1.00e-3 stop_fit=1.60e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1500	0.1682	0.1591	0.1576	0.1576	0.1574	0.1575
Stdn/(x10^-11)	0.7819	0.2792	0.0876	0.0296	0.0101	0.0030	0.0011
Errm	5.16%	7.51%	0.98%	-0.05%	-0.08%	-0.17%	-0.15%
Stdm	15.07%	10.88%	2.22%	0.82%	0.41%	0.10%	0.04%
stanx/(x10^-11)	0.4680	0.1455	0.0604	0.0185	0.0066	0.0019	0.0008
stany/(x10^-11)	0.2915	0.1763	0.0400	0.0141	0.0062	0.0014	0.0006
stanz/(x10^-11)	0.5544	0.1604	0.0492	0.0184	0.0044	0.0018	0.0004
Errv	47.95%	15.57%	5.15%	1.90%	0.57%	0.26%	0.19%
Stdv	17.63%	9.97%	1.84%	0.81%	0.29%	0.13%	0.03%
Errd	10.8999	1.2424	0.5883	0.5741	0.0848	0.0858	0.0553
Stdd	10.8198	3.8937	1.1550	0.4511	0.1498	0.0698	0.0135

h=200 size=5 start_fit=1.80e-3 stop_fit=2.80e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.2186	0.1702	0.1590	0.1577	0.1577	0.1576	0.1576
Stdn/(x10^-11)	1.8698	0.7894	0.1682	0.0749	0.0178	0.0065	0.0019
Errm	75.24%	14.45%	1.29%	0.06%	-0.02%	-0.06%	-0.05%
Stdm	35.76%	29.92%	3.08%	2.52%	0.74%	0.28%	0.09%
stanx/(x10^-11)	1.3233	0.5096	0.1056	0.0429	0.0090	0.0038	0.0008
stany/(x10^-11)	0.6590	0.4768	0.0818	0.0422	0.0120	0.0046	0.0013
stanz/(x10^-11)	1.1450	0.3689	0.1022	0.0446	0.0095	0.0028	0.0010
Errv	114.32%	44.93%	9.67%	4.17%	1.00%	0.38%	0.15%
Stdv	39.44%	20.34%	4.10%	2.02%	0.44%	0.23%	0.05%
Errd	8.8074	4.7226	1.3448	0.5051	0.0714	0.1001	0.0516
Stdd	14.9288	10.4000	2.3377	1.0759	0.2570	0.1199	0.0195

TWO DIPOLES

CONFIGURATION C

magnetization direction

θ1=110° ψ1=110°

θ2=90° ψ2=35°

magnetization strength

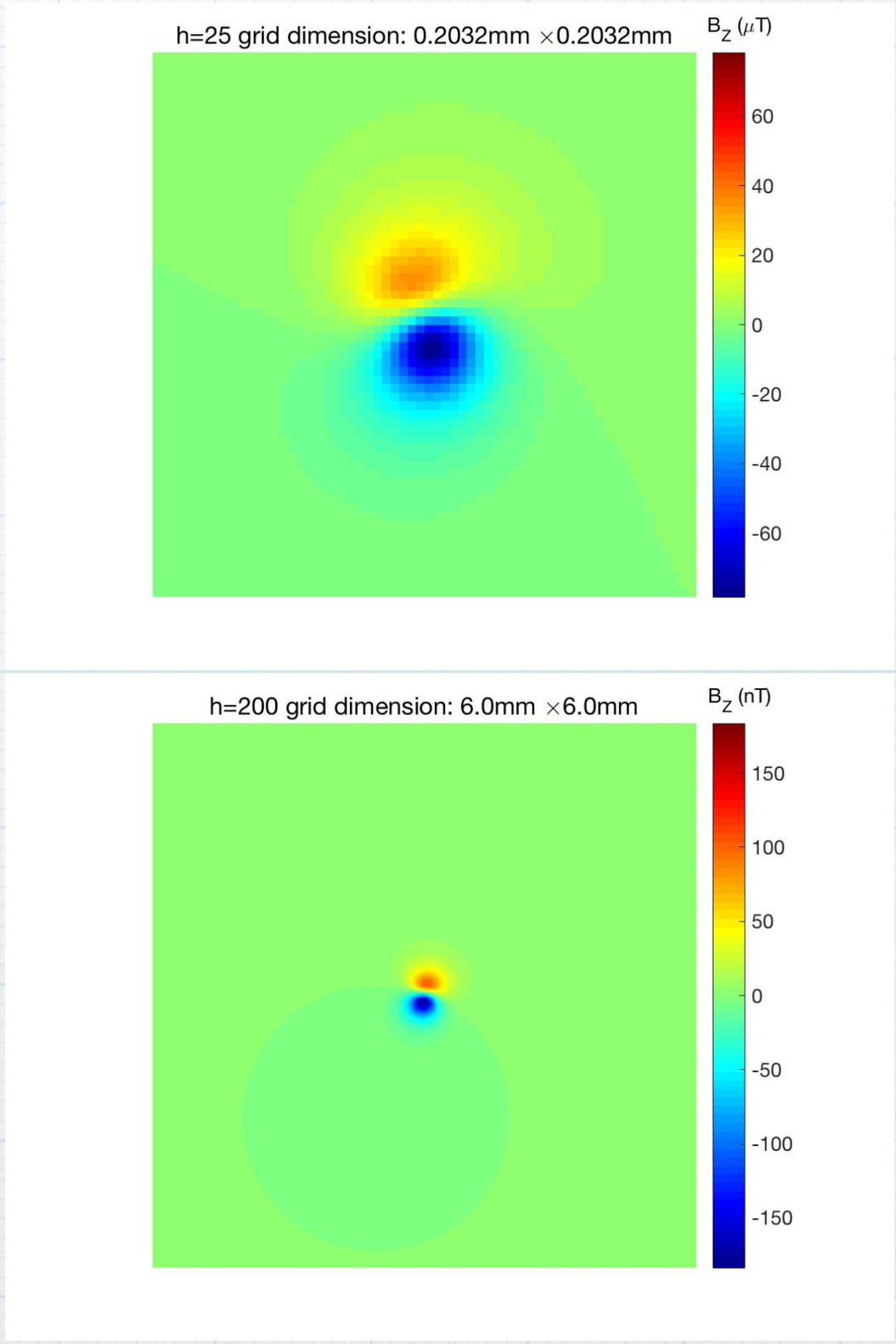
$m_1 = 1 \times 10^{-11} Am^{-2}$

$m_2 = 1 \times 10^{-11} Am^{-2}$

distance between dipoles

Δx=0 Δy=0

Δz=30μm



h=25 size=1 start_fit=0.06e-3 stop_fit=0.09e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1266	0.1264	0.1230	0.1231	0.1235	0.1233	0.1233
Stdn/(x10^-11)	0.6915	0.1550	0.0564	0.0136	0.0048	0.0019	0.0004
Errm	-12.58%	-19.57%	-21.96%	-21.92%	-21.70%	-21.81%	-21.84%
Stdm	24.26%	6.56%	2.37%	0.38%	0.17%	0.09%	0.01%
stanx/(x10^-11)	0.3719	0.0818	0.0260	0.0055	0.0031	0.0009	0.0002
stany/(x10^-11)	0.4831	0.0986	0.0342	0.0053	0.0029	0.0014	0.0002
stanz/(x10^-11)	0.3263	0.0874	0.0366	0.0112	0.0022	0.0009	0.0003
Errv	44.39%	26.50%	28.32%	28.29%	28.00%	28.03%	28.05%
Stdv	20.77%	5.18%	2.10%	0.27%	0.11%	0.07%	0.01%
Errd	9.8995	10.0236	11.4516	11.6047	11.4779	11.4274	11.4304
Stdd	13.2562	3.4751	1.2533	0.2765	0.1521	0.0476	0.0081

h=25 size=3 start_fit=0.14e-3 stop_fit=0.23e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1574	0.1533	0.1558	0.1553	0.1554	0.1554	0.1554
Stdn/(x10^-11)	0.9332	0.2542	0.0799	0.0259	0.0068	0.0025	0.0008
Errm	11.12%	-1.81%	-1.16%	-1.51%	-1.43%	-1.46%	-1.46%
Stdm	29.28%	6.98%	3.06%	1.18%	0.16%	0.09%	0.02%
stanx/(x10^-11)	0.5619	0.1594	0.0437	0.0123	0.0051	0.0014	0.0005
stany/(x10^-11)	0.3837	0.1170	0.0503	0.0188	0.0027	0.0013	0.0004
stanz/(x10^-11)	0.6386	0.1598	0.0442	0.0129	0.0035	0.0016	0.0004
Errv	54.19%	14.87%	4.78%	2.30%	1.84%	1.89%	1.86%
Stdv	20.75%	6.26%	1.89%	1.02%	0.22%	0.09%	0.03%
Errd	7.5309	2.2362	0.6932	0.7011	0.6311	0.6941	0.6612
Stdd	11.3499	3.9404	0.9317	0.5006	0.1461	0.0440	0.0189

h=25 size=5 start_fit=0.23e-3 stop_fit=0.37e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1286	0.1555	0.1523	0.1566	0.1573	0.1575	0.1574
Stdn/(x10^-10)	0.1307	0.0404	0.0100	0.0038	0.0012	0.0004	0.0002
Errm	5.58%	0.52%	-3.27%	-0.66%	-0.23%	-0.14%	-0.19%
Stdm	43.28%	15.06%	2.86%	1.50%	0.38%	0.19%	0.06%
stanx/(x10^-11)	0.4036	0.2570	0.0584	0.0240	0.0094	0.0018	0.0005
stany/(x10^-11)	0.9075	0.2277	0.0575	0.0243	0.0051	0.0031	0.0009
stanz/(x10^-11)	0.8493	0.2134	0.0569	0.0165	0.0062	0.0013	0.0011
Errv	82.27%	23.44%	6.69%	2.27%	0.81%	0.31%	0.29%
Stdv	27.78%	8.29%	1.92%	0.90%	0.36%	0.16%	0.03%
Errd	19.5737	2.4280	0.3401	0.2643	0.2350	0.1193	0.1173
Stdd	23.9797	4.6079	1.4767	0.4803	0.2105	0.0691	0.0214

h=200 size=1 start_fit=0.40e-3 stop_fit=0.58e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1276	0.1414	0.1418	0.1404	0.1405	0.1408	0.1408
Stdn/(x10^-11)	0.5713	0.1750	0.0604	0.0166	0.0048	0.0015	0.0004
Errm	-14.88%	-10.10%	-10.01%	-10.94%	-10.88%	-10.74%	-10.73%
Stdm	23.18%	8.75%	1.70%	0.71%	0.19%	0.06%	0.02%
stanx/(x10^-11)	0.2471	0.0930	0.0421	0.0100	0.0022	0.0010	0.0002
stany/(x10^-11)	0.3793	0.1311	0.0294	0.0099	0.0030	0.0009	0.0003
stanz/(x10^-11)	0.3486	0.0693	0.0318	0.0087	0.0031	0.0006	0.0002
Errv	33.13%	13.53%	10.95%	11.44%	11.36%	11.21%	11.20%
Stdv	22.55%	8.20%	1.86%	0.72%	0.16%	0.07%	0.02%
Errd	1.9849	3.0740	1.7552	1.9911	1.9804	1.9509	1.9401
Stdd	15.1669	2.7863	1.1111	0.4431	0.0774	0.0402	0.0078

h=200 size=3 start_fit=1.00e-3 stop_fit=1.60e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1855	0.1570	0.1579	0.1571	0.1575	0.1573	0.1574
Stdn/(x10^-11)	0.9496	0.2671	0.0710	0.0267	0.0075	0.0026	0.0009
Errm	26.33%	0.30%	0.17%	-0.39%	-0.14%	-0.26%	-0.21%
Stdm	35.68%	11.33%	3.48%	1.33%	0.27%	0.09%	0.03%
stanx/(x10^-11)	0.5979	0.1448	0.0459	0.0090	0.0046	0.0015	0.0006
stany/(x10^-11)	0.6032	0.1780	0.0473	0.0200	0.0048	0.0017	0.0005
stanz/(x10^-11)	0.4248	0.1365	0.0265	0.0152	0.0035	0.0013	0.0005
Errv	58.55%	15.89%	4.31%	1.54%	0.45%	0.34%	0.27%
Stdv	24.86%	4.50%	1.85%	0.65%	0.21%	0.09%	0.03%
Errd	10.7029	2.0273	1.0605	0.0405	0.0799	0.1060	0.0912
Stdd	11.1327	3.0649	0.5904	0.1997	0.1216	0.0498	0.0174

h=200 size=5 start_fit=1.80e-3 stop_fit=2.80e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.2312	0.1281	0.1606	0.1574	0.1574	0.1574	0.1576
Stdn/(x10^-10)	0.1657	0.0551	0.0148	0.0063	0.0019	0.0006	0.0002
Errm	67.80%	-14.53%	2.11%	-0.13%	-0.21%	-0.18%	-0.04%
Stdm	60.28%	20.80%	5.61%	2.58%	0.51%	0.23%	0.07%
stanx/(x10^-10)	0.1054	0.0244	0.0082	0.0033	0.0015	0.0002	0.0001
stany/(x10^-10)	0.1182	0.0353	0.0082	0.0042	0.0010	0.0004	0.0001
stanz/(x10^-10)	0.0486	0.0345	0.0092	0.0033	0.0007	0.0003	0.0001
Errv	102.87%	34.48%	8.69%	3.51%	1.14%	0.36%	0.12%
Stdv	50.45%	17.86%	3.29%	1.74%	0.42%	0.14%	0.05%
Errd	13.1279	3.1145	0.9603	0.5252	0.1290	0.0402	0.0399
Stdd	24.9538	9.9341	2.1724	0.9562	0.2633	0.0857	0.0247

VOLUME WITH A LARGE NUMBER OF DIPOLES

SYNTHETICBZMAP_CASE14

100µm x 100µm x 100µm box

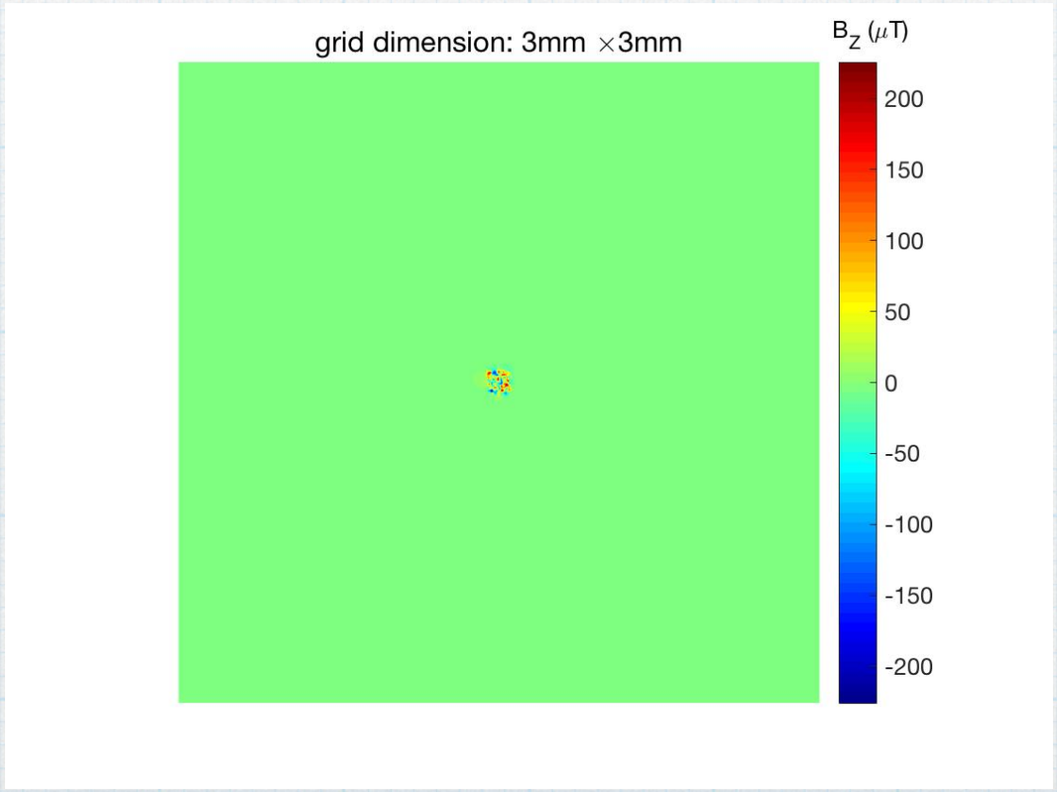
magnetization direction

θ=25.1° ψ=-6.4°

h=10µm

magnetization strength

$$m = 1.68 \times 10^{-11} Am^{-2}$$



VOLUME WITH A LARGE NUMBER OF DIPOLES

SYNTHETICBZMAP_CASE16

100µm x 100µm x 300µm box

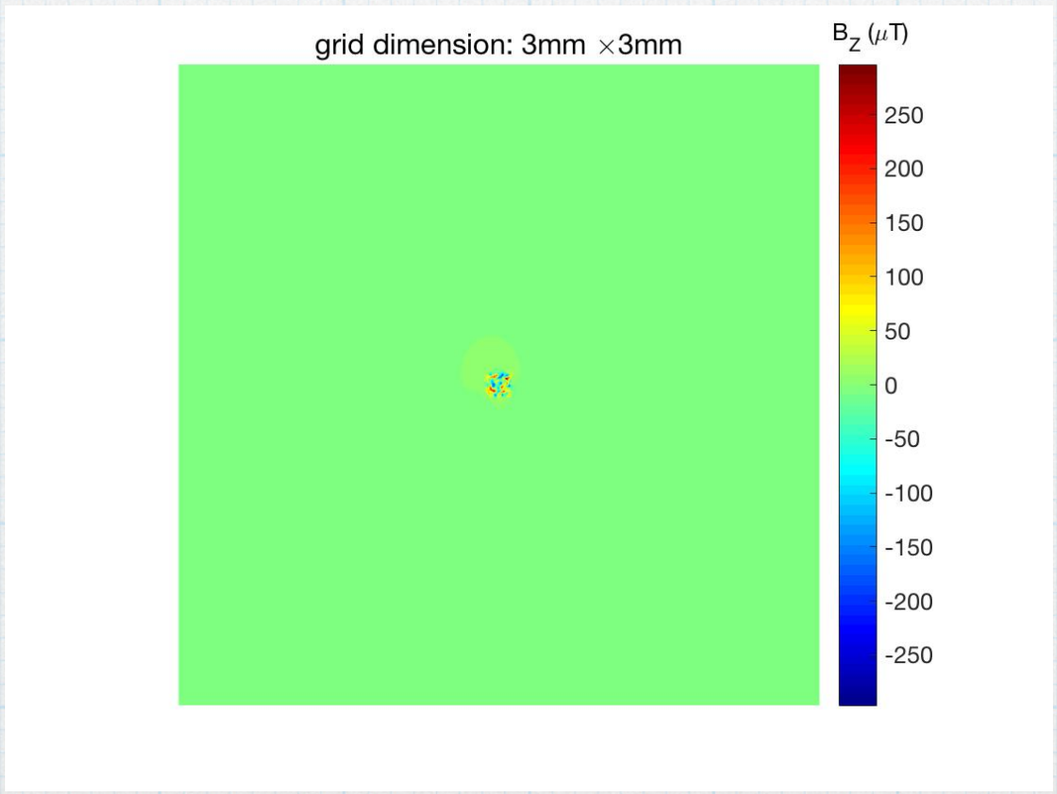
magnetization direction

θ=13.8° ψ=10.6°

h=10µm

magnetization strength

$$m = 8.36 \times 10^{-11} Am^{-2}$$



VOLUME WITH A LARGE NUMBER OF DIPOLES

SYNTHETICBZMAP_CASE12

100µm x 100µm x 600µm box

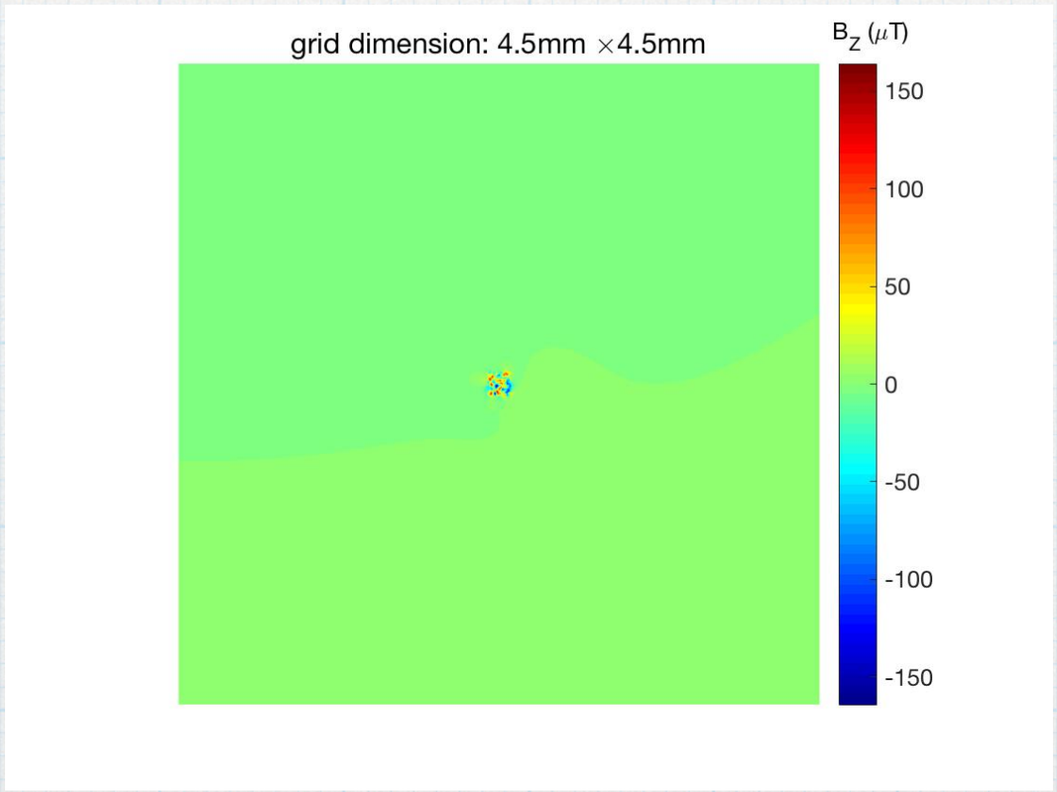
magnetization direction

θ=97.0° ψ=-70.4°

h=10µm

magnetization strength

$$m = 4.26 \times 10^{-11} Am^{-2}$$



SyntheticBzMap_Case14_100_100_100_2 start_fit=0.50 stop_fit=1.50

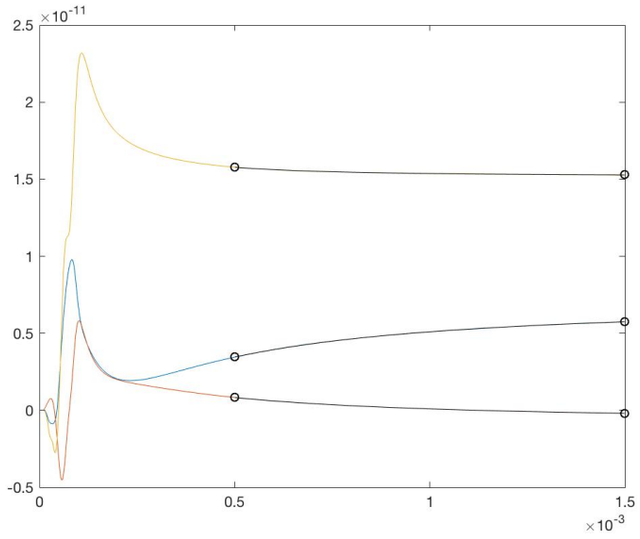
SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.0164	0.2072	0.1538	0.1651	0.1687	0.1680	0.1681
Stdn/(x10^-11)	5.2666	1.5888	0.5230	0.1577	0.0471	0.0152	0.0060
Errm	174.26%	41.29%	-4.83%	-1.52%	0.34%	-0.10%	-0.04%
Stdm	121.06%	60.16%	14.39%	4.54%	1.30%	0.54%	0.23%
Errx	-94.01%	4.91%	3.43%	-2.75%	-0.69%	-0.58%	0.00%
Erry	66.82%	10.95%	-80.10%	-51.96%	-1.71%	1.66%	0.47%
Errz	-105.71%	26.90%	-11.18%	-1.52%	0.54%	0.00%	-0.05%
stanx/(x10^-11)	3.6046	1.0143	0.2258	0.0932	0.0313	0.0094	0.0040
stany/(x10^-11)	2.3511	0.9100	0.4015	0.1023	0.0293	0.0076	0.0030
stanz/(x10^-11)	3.0357	0.8169	0.2477	0.0755	0.0196	0.0091	0.0033
Errv	299.08%	86.75%	28.99%	8.55%	2.54%	0.82%	0.32%
Stdv	103.30%	35.09%	12.90%	4.13%	1.01%	0.38%	0.13%
Errd	109.3344	3.9243	4.0961	1.4130	0.2744	0.1361	0.0186
Stdd	38.6764	13.4828	8.5490	2.1501	0.5950	0.1964	0.0496

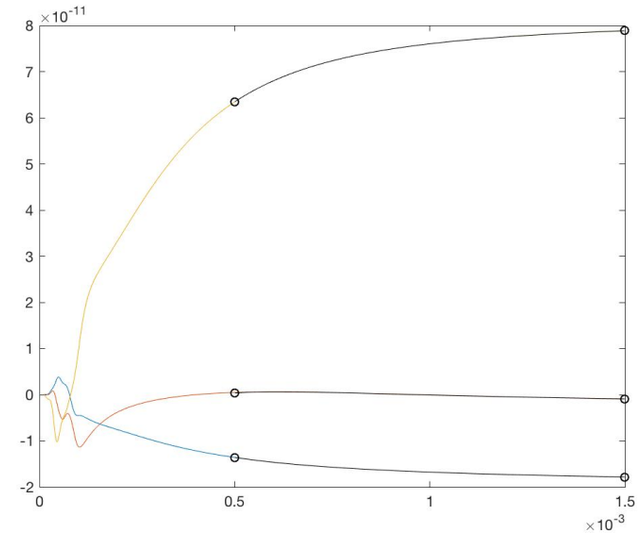
SyntheticBzMap_Case16_100_100_300_2 start_fit=0.50 stop_fit=1.50

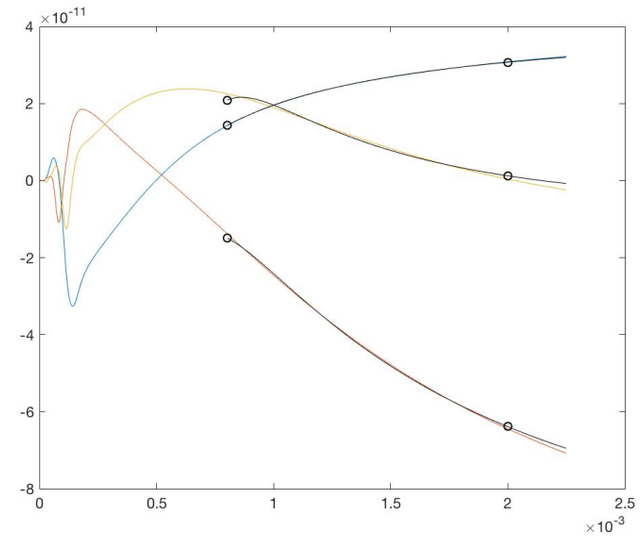
SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.8019	0.8273	0.8359	0.8348	0.8373	0.8368	0.8369
Stdn/(x10^-11)	5.6321	1.4716	0.7233	0.1594	0.0539	0.0175	0.0051
Errm	13.41%	-0.10%	0.15%	-0.18%	0.10%	0.04%	0.05%
Stdm	21.33%	9.42%	5.27%	1.20%	0.40%	0.10%	0.03%
Errx	-19.28%	-8.08%	4.81%	2.84%	0.81%	0.66%	1.01%
Erry	156.81%	-6.91%	-18.94%	-9.83%	-22.94%	-17.99%	-18.12%
Errz	-3.92%	-0.69%	-0.31%	-0.35%	0.10%	0.04%	0.03%
stanx/(x10^-11)	3.7007	0.9808	0.3905	0.0781	0.0367	0.0093	0.0035
stany/(x10^-11)	3.8482	0.6965	0.4784	0.0958	0.0198	0.0124	0.0029
stanz/(x10^-11)	1.7934	0.8477	0.3766	0.1005	0.0342	0.0081	0.0023
Errv	60.86%	15.52%	7.23%	1.86%	1.17%	0.82%	0.83%
Stdv	22.61%	6.83%	4.36%	0.78%	0.26%	0.16%	0.04%
Errd	4.7383	0.9889	0.8234	0.4837	0.5878	0.4618	0.4756
Stdd	11.7246	3.4210	2.3528	0.3846	0.1310	0.0893	0.0214

SyntheticBzMap_Case12_100_100_600_3 start_fit=0.80 stop_fit=2.00

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	1.5125	1.2217	1.2820	1.3148	1.3132	1.3134	1.3140
Stdn/(x10^-11)	16.4760	6.4537	1.3588	0.5505	0.1599	0.0617	0.0165
Errm	377.78%	213.20%	202.12%	209.09%	208.55%	208.59%	208.73%
Stdm	191.17%	74.48%	20.41%	7.06%	2.77%	0.85%	0.23%
Errx	-237.48%	252.09%	231.75%	195.47%	204.58%	203.87%	202.65%
Erry	272.98%	179.90%	198.31%	211.47%	210.26%	210.40%	210.66%
Errz	313.06%	-205.59%	121.85%	149.54%	123.22%	124.15%	128.43%
stanx/(x10^-11)	10.5241	4.5309	0.4825	0.3237	0.0857	0.0311	0.0102
stany/(x10^-11)	8.7270	3.1383	0.9232	0.3392	0.1059	0.0427	0.0113
stanz/(x10^-11)	9.1947	3.3574	0.8725	0.2884	0.0837	0.0318	0.0063
Errv	418.85%	226.03%	202.74%	209.23%	208.64%	208.68%	208.81%
Stdv	189.45%	78.57%	20.31%	7.02%	2.77%	0.85%	0.23%
Errd	26.8121	10.5348	2.7100	1.6330	1.9593	1.9483	1.8754
Stdd	22.5973	9.6441	1.2133	0.6545	0.3692	0.1414	0.0328







TWO DIPOLES

CONFIGURATION F

magnetization direction
θ1=110° ψ1=110°
θ2=90° ψ2=35°

magnetization strength
$m_1 = 1 \times 10^{-11} Am^{-2}$
$m_2 = 1 \times 10^{-11} Am^{-2}$

distance between dipoles
Δx=0 Δy=0
Δz=300μm

CONFIGURATION G

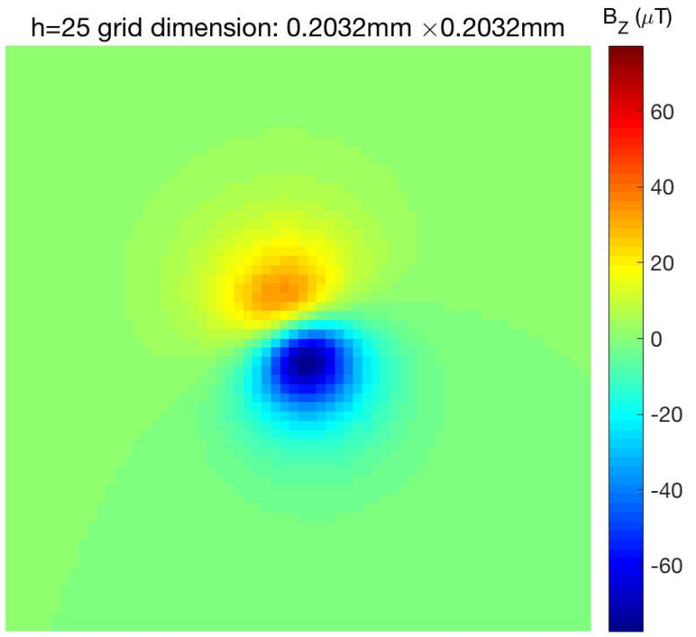
magnetization direction
θ1=110° ψ1=110°
θ2=90° ψ2=35°

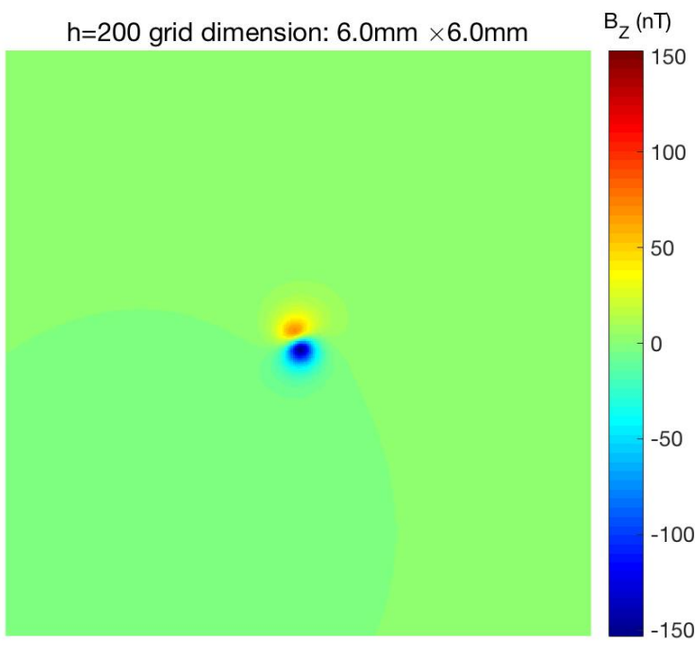
magnetization strength
$m_1 = 1 \times 10^{-11} Am^{-2}$
$m_2 = 1 \times 10^{-11} Am^{-2}$

distance between dipoles
Δx=0 Δy=0
Δz=600μm

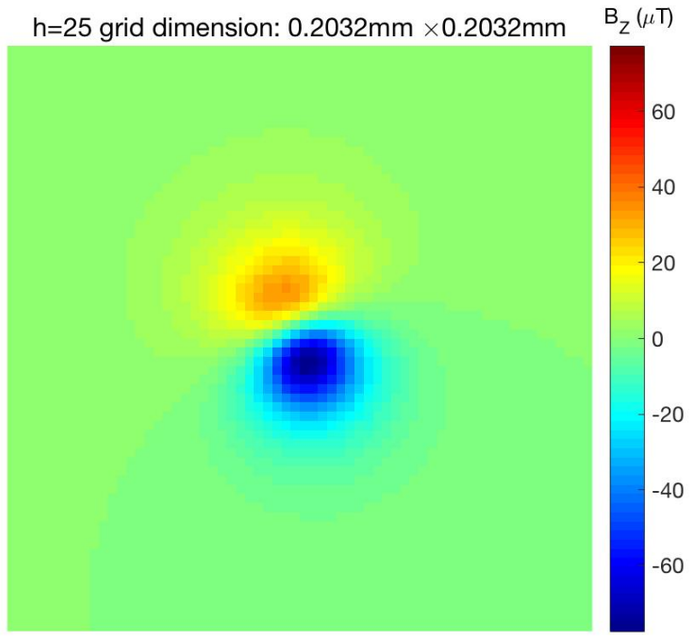
TWO DIPOLES

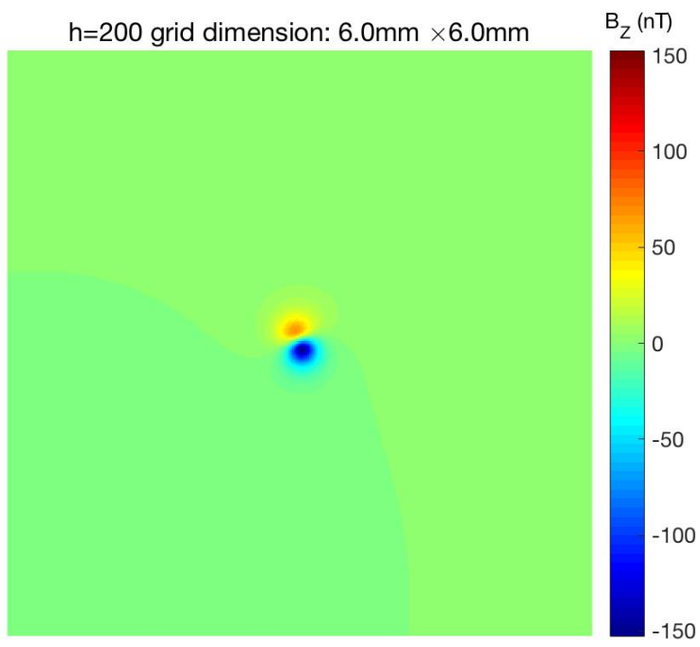
CONFIGURATION F





CONFIGURATION G





CONFIGURATION F

h=25 size=1 start_fit=0.06e-3 stop_fit=0.09e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.0971	0.0955	0.0964	0.0960	0.0963	0.0962	0.0962
Stdn/(x10^-11)	0.4045	0.0888	0.0536	0.0090	0.0050	0.0015	0.0005
Errm	-34.97%	-39.35%	-38.84%	-39.14%	-38.94%	-39.00%	-39.00%
Stdm	13.07%	4.06%	1.87%	0.44%	0.23%	0.05%	0.02%
stanx/(x10^-11)	0.2924	0.0544	0.0287	0.0058	0.0027	0.0012	0.0004
stany/(x10^-11)	0.2588	0.0608	0.0386	0.0054	0.0041	0.0007	0.0002
stanz/(x10^-11)	0.1057	0.0350	0.0236	0.0043	0.0012	0.0005	0.0003
Errv	63.92%	64.04%	63.76%	64.14%	64.14%	64.12%	64.11%
Stdv	21.12%	3.35%	2.31%	0.27%	0.21%	0.07%	0.02%
Errd	36.5188	37.6851	37.6634	38.0091	38.0631	38.0302	38.0249
Stdd	18.4614	3.2272	2.0653	0.2955	0.1795	0.0689	0.0222

h=25 size=3 start_fit=0.14e-3 stop_fit=0.23e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1175	0.1003	0.0994	0.1011	0.1014	0.1013	0.1013
Stdn/(x10^-11)	0.6386	0.1883	0.0634	0.0236	0.0080	0.0018	0.0006
Errm	-19.64%	-35.94%	-36.94%	-35.88%	-35.70%	-35.77%	-35.77%
Stdm	25.23%	8.55%	3.09%	1.03%	0.32%	0.07%	0.02%
stanx/(x10^-11)	0.4041	0.1251	0.0319	0.0128	0.0041	0.0010	0.0003
stany/(x10^-11)	0.3962	0.1246	0.0468	0.0171	0.0057	0.0011	0.0004
stanz/(x10^-11)	0.2958	0.0653	0.0284	0.0101	0.0039	0.0008	0.0004
Errv	64.14%	62.84%	61.35%	60.63%	60.16%	60.19%	60.24%
Stdv	19.44%	6.33%	1.98%	0.72%	0.28%	0.07%	0.02%
Errd	32.4698	36.7674	35.8311	35.5271	35.1448	35.1577	35.2037
Stdd	17.0391	6.8782	1.5750	0.5990	0.2297	0.0613	0.0210

h=25 size=5 start_fit=0.23e-3 stop_fit=0.37e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1185	0.1190	0.1110	0.1098	0.1092	0.1093	0.1094
Stdn/(x10^-11)	1.0761	0.3285	0.1297	0.0352	0.0105	0.0043	0.0010
Errm	-3.40%	-22.80%	-29.28%	-30.36%	-30.75%	-30.72%	-30.65%
Stdm	23.69%	11.80%	3.87%	1.32%	0.37%	0.10%	0.03%
stanx/(x10^-11)	0.4098	0.2257	0.0919	0.0266	0.0077	0.0033	0.0006
stany/(x10^-11)	0.7251	0.1972	0.0619	0.0211	0.0061	0.0016	0.0005
stanz/(x10^-11)	0.6814	0.1344	0.0673	0.0094	0.0039	0.0023	0.0007
Errv	72.41%	44.02%	46.89%	46.73%	46.89%	46.92%	46.87%
Stdv	31.64%	14.40%	5.87%	1.38%	0.44%	0.16%	0.03%
Errd	24.3300	22.3336	24.7342	24.5407	24.5611	24.5995	24.5852
Stdd	27.5135	11.2907	4.9391	1.3642	0.3995	0.1658	0.0281

CONFIGURATION F

h=200 size=1 start_fit=0.40e-3 stop_fit=0.58e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.0938	0.1048	0.1051	0.1037	0.1037	0.1037	0.1037
Stdn/(x10^-11)	0.3270	0.1492	0.0330	0.0109	0.0031	0.0012	0.0004
Errm	-37.84%	-33.21%	-33.34%	-34.24%	-34.22%	-34.23%	-34.24%
Stdm	8.09%	6.38%	1.48%	0.31%	0.10%	0.05%	0.02%
stanx/(x10^-11)	0.2598	0.0754	0.0170	0.0078	0.0019	0.0007	0.0002
stany/(x10^-11)	0.1540	0.1130	0.0229	0.0054	0.0020	0.0007	0.0003
stanz/(x10^-11)	0.1252	0.0616	0.0165	0.0054	0.0016	0.0006	0.0002
Errv	52.34%	44.43%	44.91%	45.80%	45.62%	45.70%	45.70%
Stdv	16.07%	7.09%	0.98%	0.54%	0.09%	0.04%	0.02%
Errd	22.9591	20.1489	21.1857	21.6186	21.4346	21.5190	21.5190
Stdd	16.6772	4.8555	0.9492	0.4743	0.0881	0.0398	0.0094

h=200 size=3 start_fit=1.00e-3 stop_fit=1.60e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1340	0.1522	0.1517	0.1521	0.1522	0.1519	0.1519
Stdn/(x10^-11)	0.6239	0.1561	0.0657	0.0189	0.0052	0.0014	0.0006
Errm	-9.11%	-3.30%	-3.74%	-3.55%	-3.51%	-3.65%	-3.66%
Stdm	20.18%	7.94%	2.29%	0.81%	0.18%	0.05%	0.02%
stanx/(x10^-11)	0.4695	0.0790	0.0385	0.0102	0.0034	0.0004	0.0004
stany/(x10^-11)	0.3377	0.1225	0.0406	0.0123	0.0026	0.0009	0.0004
stanz/(x10^-11)	0.2342	0.0557	0.0344	0.0102	0.0029	0.0009	0.0002
Errv	37.33%	9.38%	5.25%	4.38%	4.69%	4.65%	4.67%
Stdv	16.62%	4.38%	1.83%	0.79%	0.24%	0.03%	0.01%
Errd	1.6874	1.3045	0.4164	1.4119	1.8071	1.6867	1.6960
Stdd	11.9261	1.4340	0.8453	0.3390	0.1272	0.0158	0.0157

h=200 size=5 start_fit=1.80e-3 stop_fit=2.80e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1792	0.1560	0.1573	0.1565	0.1567	0.1571	0.1571
Stdn/(x10^-11)	1.0641	0.4318	0.1078	0.0341	0.0100	0.0041	0.0011
Errm	25.94%	1.31%	-0.12%	-0.73%	-0.63%	-0.37%	-0.39%
Stdm	35.65%	14.78%	4.57%	1.33%	0.37%	0.17%	0.04%
stanx/(x10^-11)	0.8163	0.2166	0.0598	0.0147	0.0035	0.0025	0.0006
stany/(x10^-11)	0.4798	0.2538	0.0775	0.0231	0.0054	0.0028	0.0006
stanz/(x10^-11)	0.4854	0.2740	0.0450	0.0203	0.0077	0.0017	0.0007
Errv	63.61%	25.44%	6.25%	2.42%	0.87%	0.49%	0.53%
Stdv	24.35%	10.96%	2.71%	0.66%	0.28%	0.17%	0.04%
Errd	9.2778	5.1486	1.0957	0.6957	0.1596	0.1496	0.2041
Stdd	15.0043	7.0001	1.5128	0.5036	0.1398	0.0715	0.0235

CONFIGURATION G

h=25 size=1 start_fit=0.06e-3 stop_fit=0.09e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.0980	0.0984	0.0982	0.0966	0.0963	0.0962	0.0962
Stdn/(x10^-11)	0.4117	0.1202	0.0431	0.0158	0.0039	0.0013	0.0005
Errm	-34.73%	-37.26%	-37.73%	-38.76%	-38.93%	-39.01%	-39.02%
Stdm	15.39%	3.00%	2.25%	0.62%	0.10%	0.03%	0.02%
stanx/(x10^-11)	0.2184	0.0692	0.0226	0.0111	0.0028	0.0009	0.0002
stany/(x10^-11)	0.3179	0.0669	0.0315	0.0085	0.0020	0.0006	0.0003
stanz/(x10^-11)	0.1440	0.0721	0.0188	0.0073	0.0019	0.0008	0.0003
Errv	62.01%	66.47%	63.00%	64.50%	64.17%	64.17%	64.15%
Stdv	18.41%	5.50%	1.21%	0.55%	0.18%	0.05%	0.02%
Errd	33.8191	40.4199	37.2445	38.4620	38.0976	38.0719	38.0525
Stdd	14.8231	4.7213	1.0582	0.5818	0.1780	0.0543	0.0150

h=25 size=3 start_fit=0.14e-3 stop_fit=0.23e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1000	0.1002	0.1017	0.1005	0.1001	0.1000	0.1000
Stdn/(x10^-11)	0.6435	0.2146	0.0817	0.0190	0.0071	0.0017	0.0008
Errm	-27.73%	-35.44%	-35.39%	-36.24%	-36.51%	-36.60%	-36.59%
Stdm	18.21%	5.97%	2.49%	0.65%	0.28%	0.08%	0.03%
stanx/(x10^-11)	0.2924	0.1670	0.0516	0.0133	0.0046	0.0010	0.0004
stany/(x10^-11)	0.3551	0.1088	0.0464	0.0105	0.0042	0.0012	0.0005
stanz/(x10^-11)	0.4500	0.0797	0.0432	0.0087	0.0034	0.0006	0.0004
Errv	78.03%	65.67%	62.74%	63.26%	63.21%	63.32%	63.32%
Stdv	18.24%	9.27%	2.86%	0.82%	0.26%	0.07%	0.02%
Errd	43.9486	39.4308	37.4460	37.8871	37.7850	37.8667	37.8716
Stdd	16.8309	9.9019	2.6308	0.7591	0.2498	0.0569	0.0198

h=25 size=5 start_fit=0.23e-3 stop_fit=0.37e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.0917	0.0915	0.1014	0.1001	0.1004	0.1006	0.1007
Stdn/(x10^-11)	1.3811	0.2989	0.1154	0.0391	0.0129	0.0040	0.0011
Errm	-6.09%	-40.23%	-35.51%	-36.51%	-36.32%	-36.19%	-36.16%
Stdm	40.30%	11.57%	5.19%	1.84%	0.60%	0.18%	0.05%
stanx/(x10^-11)	0.8431	0.1756	0.0495	0.0120	0.0076	0.0030	0.0007
stany/(x10^-11)	0.7655	0.2031	0.0765	0.0321	0.0089	0.0021	0.0008
stanz/(x10^-11)	0.7814	0.1315	0.0708	0.0189	0.0054	0.0017	0.0004
Errv	98.43%	66.09%	63.08%	62.70%	61.85%	61.90%	61.81%
Stdv	41.00%	12.37%	2.64%	1.20%	0.39%	0.13%	0.05%
Errd	38.6487	37.6846	37.5434	37.2758	36.5614	36.6382	36.5693
Stdd	35.6606	13.0507	2.4797	0.8629	0.3774	0.1459	0.0428

CONFIGURATION G

h=200 size=1 start_fit=0.40e-3 stop_fit=0.58e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.0940	0.0925	0.0945	0.0941	0.0939	0.0939	0.0939
Stdn/(x10^-11)	0.3198	0.1145	0.0327	0.0117	0.0030	0.0014	0.0003
Errm	-38.31%	-41.09%	-40.03%	-40.36%	-40.46%	-40.43%	-40.44%
Stdm	11.52%	4.52%	1.32%	0.52%	0.07%	0.06%	0.01%
stanx/(x10^-11)	0.2336	0.0683	0.0199	0.0079	0.0022	0.0008	0.0002
stany/(x10^-11)	0.1851	0.0648	0.0212	0.0081	0.0011	0.0010	0.0002
stanz/(x10^-11)	0.1159	0.0651	0.0151	0.0029	0.0017	0.0005	0.0001
Errv	61.95%	61.93%	60.54%	60.44%	60.57%	60.59%	60.58%
Stdv	11.19%	3.32%	0.95%	0.41%	0.11%	0.05%	0.01%
Errd	33.2371	34.7162	34.0697	33.8622	33.9632	34.0002	33.9799
Stdd	11.2067	3.9776	0.9944	0.4305	0.1173	0.0507	0.0135

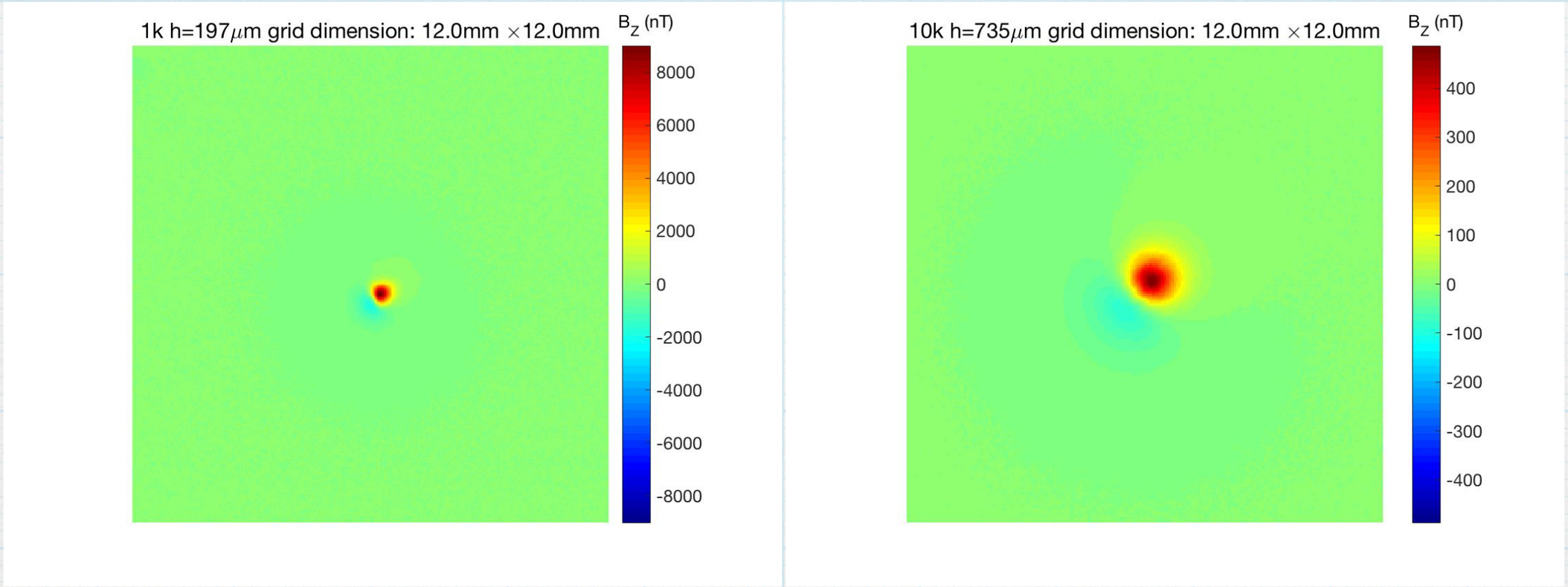
h=200 size=3 start_fit=1.00e-3 stop_fit=1.60e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1422	0.1362	0.1336	0.1358	0.1355	0.1354	0.1354
Stdn/(x10^-11)	0.5184	0.1954	0.0486	0.0177	0.0050	0.0018	0.0007
Errm	-5.31%	-13.09%	-15.26%	-13.88%	-14.10%	-14.16%	-14.15%
Stdm	12.49%	6.55%	2.22%	0.91%	0.25%	0.05%	0.03%
stanx/(x10^-11)	0.3525	0.0936	0.0237	0.0059	0.0019	0.0012	0.0005
stany/(x10^-11)	0.2468	0.1185	0.0350	0.0143	0.0035	0.0007	0.0005
stanz/(x10^-11)	0.2892	0.1240	0.0240	0.0085	0.0031	0.0011	0.0002
Errv	30.41%	22.28%	20.33%	18.61%	18.95%	18.92%	18.90%
Stdv	20.31%	5.88%	1.92%	0.57%	0.16%	0.07%	0.02%
Errd	9.1031	8.7843	8.2301	7.6400	7.8298	7.7613	7.7548
Stdd	13.1332	4.1287	0.9638	0.2306	0.0925	0.0541	0.0178

h=200 size=5 start_fit=1.80e-3 stop_fit=2.80e-3

SNR/dB	0	10	20	30	40	50	60
Net_estim/(x10^-10)	0.1499	0.1630	0.1575	0.1538	0.1534	0.1539	0.1538
Stdn/(x10^-11)	1.2200	0.2773	0.1356	0.0367	0.0131	0.0041	0.0013
Errm	9.53%	4.19%	0.08%	-2.44%	-2.72%	-2.41%	-2.45%
Stdm	51.91%	10.82%	4.80%	1.57%	0.50%	0.19%	0.04%
stanx/(x10^-11)	0.5043	0.2110	0.1120	0.0190	0.0081	0.0020	0.0009
stany/(x10^-11)	0.9377	0.1558	0.0568	0.0255	0.0080	0.0029	0.0007
stanz/(x10^-11)	0.5957	0.0899	0.0513	0.0183	0.0065	0.0021	0.0006
Errv	71.19%	18.80%	7.45%	3.99%	3.38%	3.17%	3.15%
Stdv	19.76%	6.69%	4.15%	0.98%	0.59%	0.16%	0.05%
Errd	1.6185	5.7612	1.1968	1.4057	1.1179	1.1870	1.1504
Stdd	29.2704	4.5664	1.9125	0.7312	0.2838	0.0783	0.0350

IMPACT SPHERULE FROM THE LONAR CRATER IN INDIA

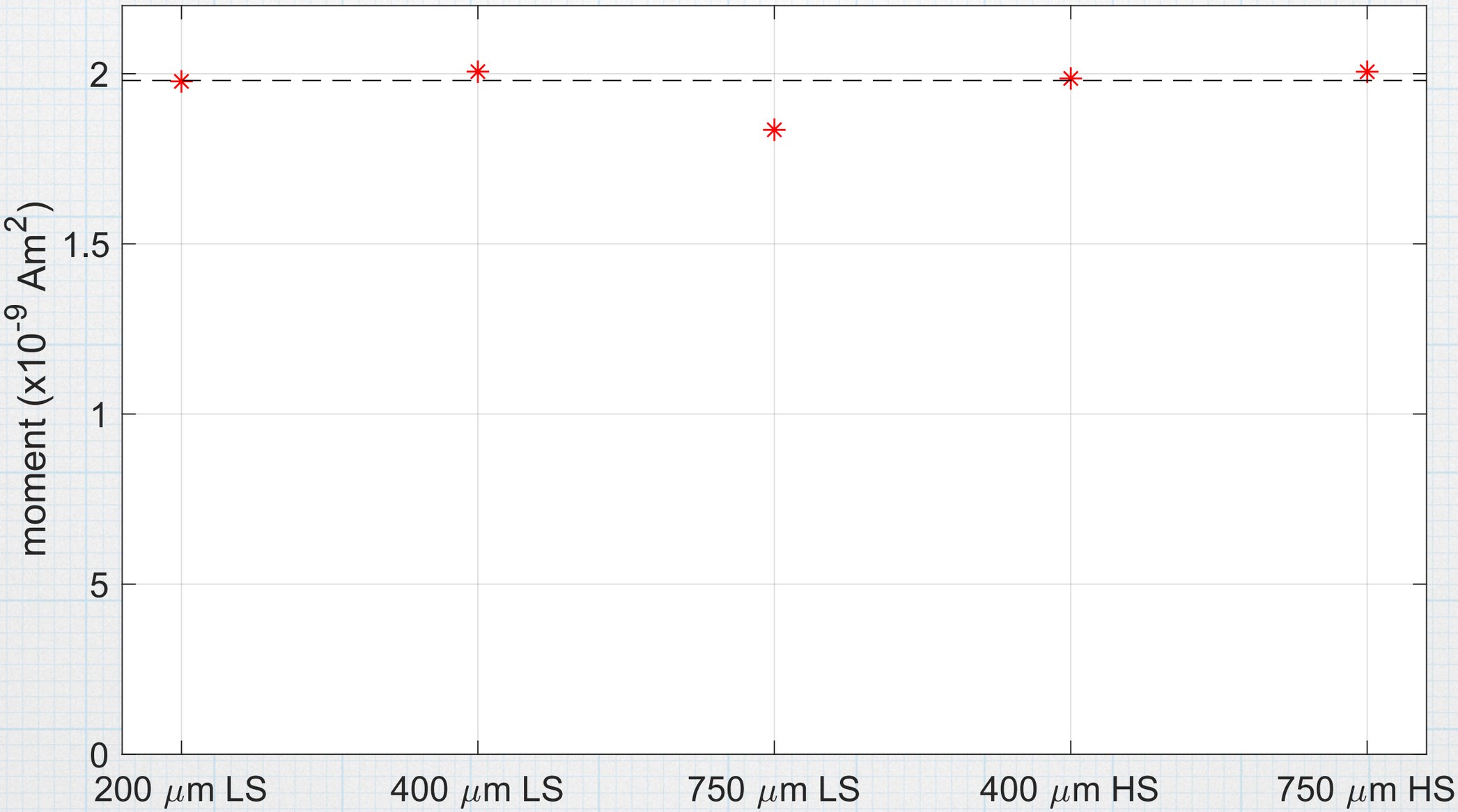


IMPACT SPHERULE FROM THE LONAR CRATER IN INDIA

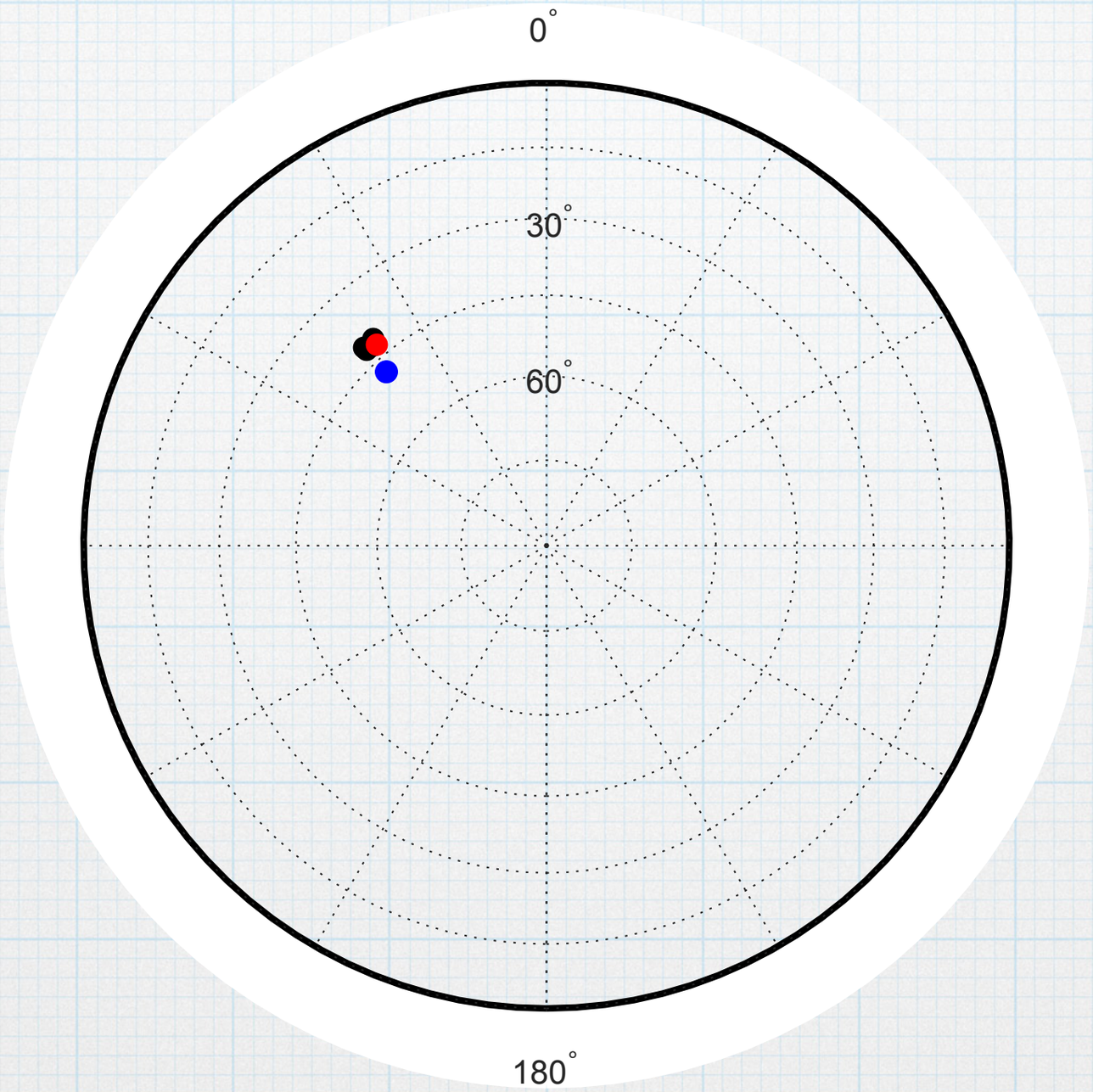
LONJ_NRM_series2

	1k_liftoff197um	1k_liftoff414um	1k_liftoff735um	10k_liftoff414um	10k_liftoff735um
Net_estim/(x10^-9)	1.9774	2.0061	1.8352	1.9861	2.0058
Errm	-0.13%	1.32%	-7.31%	0.31%	1.30%
mx/(x10^-9)	0.9536	0.9728	0.8370	0.9974	1.0193
my/(x10^-9)	1.1382	1.1212	0.9090	1.0854	1.1062
mz/(x10^-9)	1.3057	1.3494	1.3569	1.3310	1.3269
theta	48.6735	47.7278	42.3226	47.9205	48.5840
phi	50.0429	49.0561	47.3608	47.4195	47.3389
Errv	2.27%	1.76%	11.59%	3.26%	4.08%
Errd	1.2982	0.6646	5.3525	1.8587	2.2037
start_fit/(x10^-3)	1.00 2.00 1.00	3.00 3.00 2.00	3.00 3.00 2.00	2.00 3.00 2.00	2.00 2.00 2.00
sto_fit/(x10^-3)	2.20 4.00 2.00	5.00 5.00 4.00	5.50 5.00 5.00	5.00 5.00 5.00	5.00 5.00 5.00

LONAR SPHERULE



LONAR SPHERULE



THANK YOU