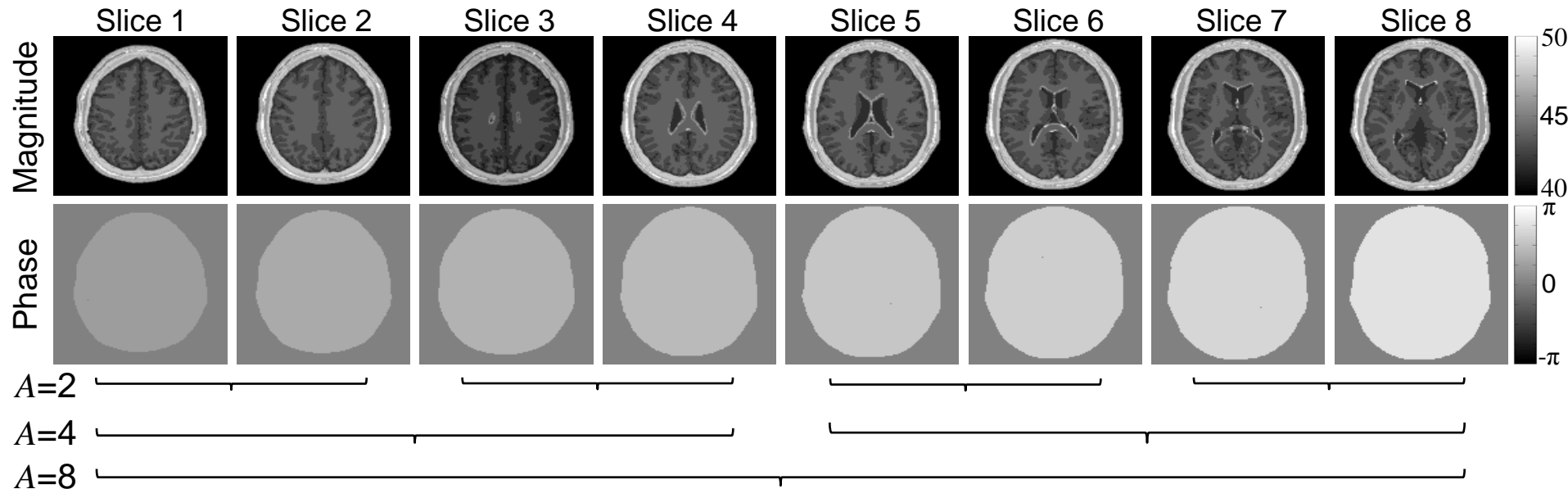


Image Un-Aliasing Simulation

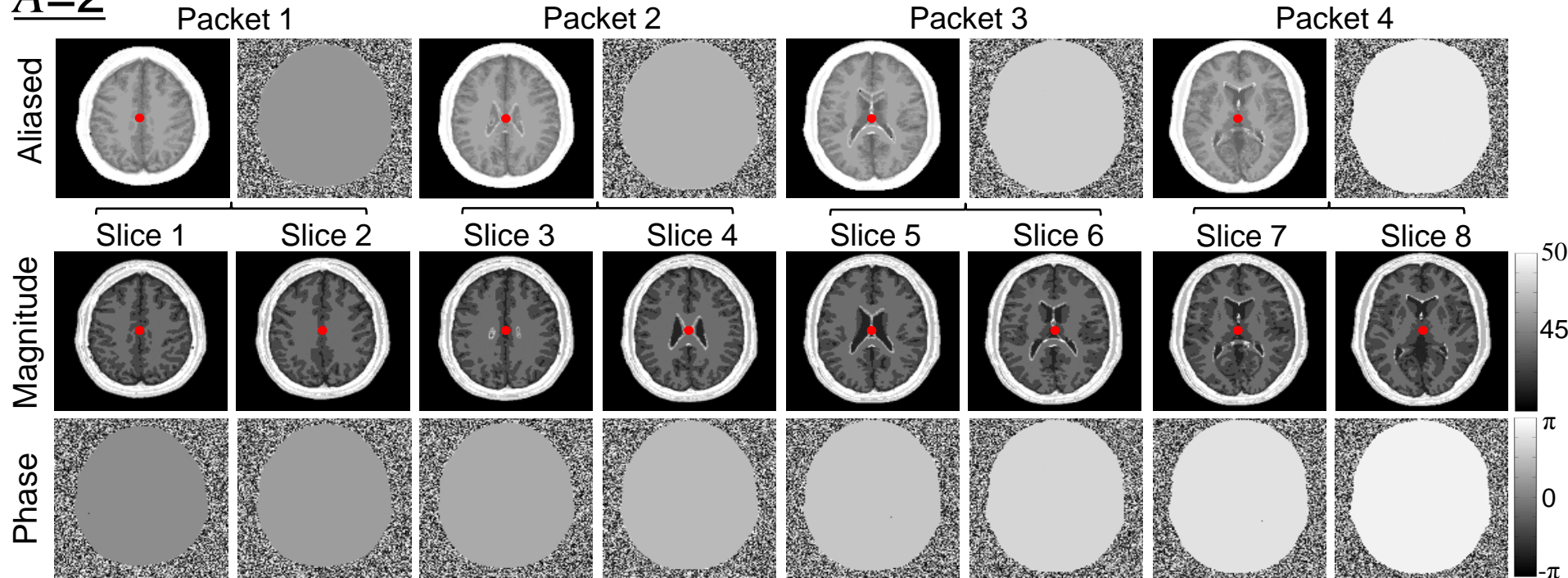
128 × 128 3D brain phantom with 8 slices

Packets of adjacent slices aliased in k -space with $A=2,4,8$

$N(0, \sqrt{128 \times 128})$ noise added to 500 k -space arrays in each slice

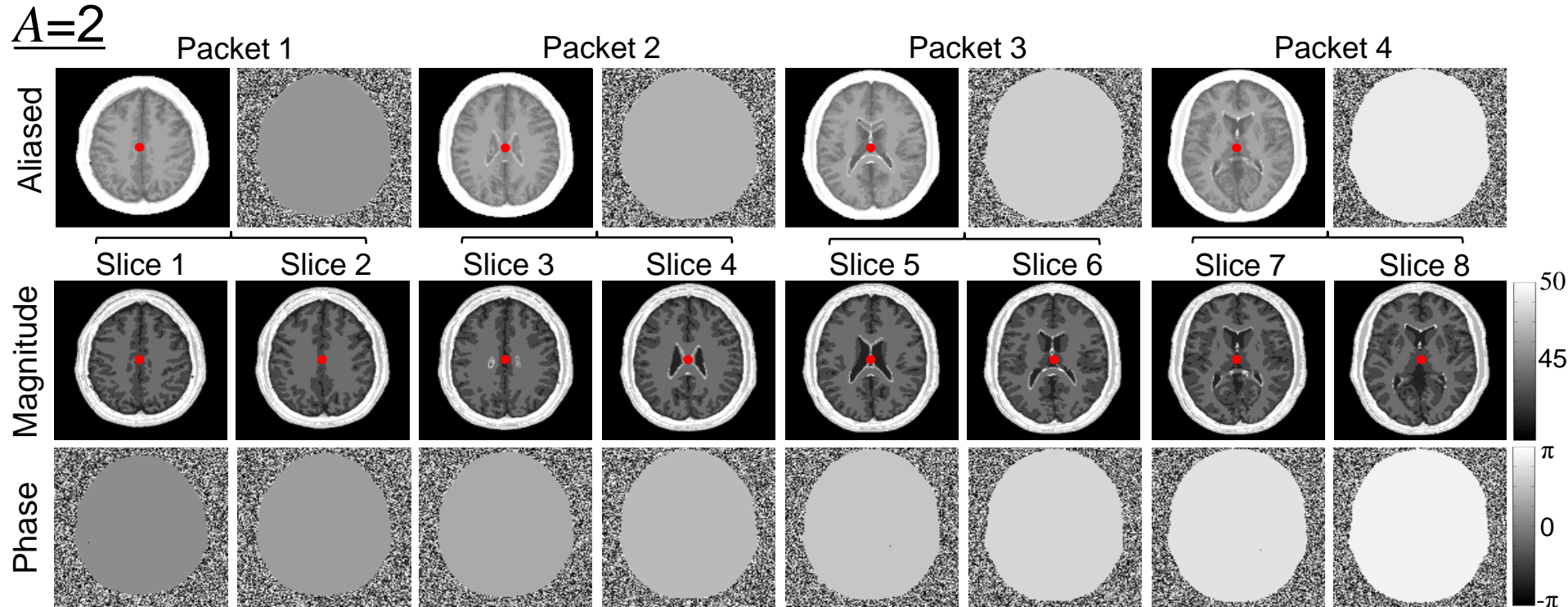


$A=2$



Magnitude² correlations about center voxel

1	0.9388	1	0.9338	1	0.9382	1	0.9333
0.9388	1	0.9338	1	0.9382	1	0.9333	1



Magnitude² correlations about center voxel

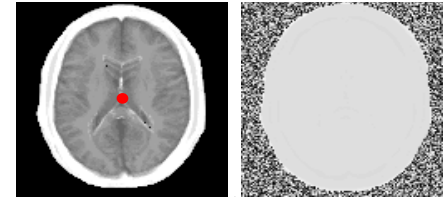
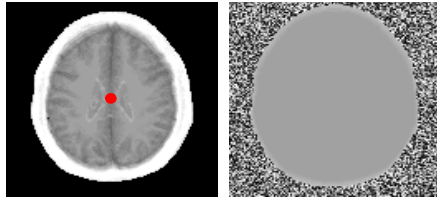
1	0.0160	1	-0.0369	1	-0.0393	1	-0.0736
0.0160	1	-0.0369	1	-0.0393	1	-0.0736	1

A=4

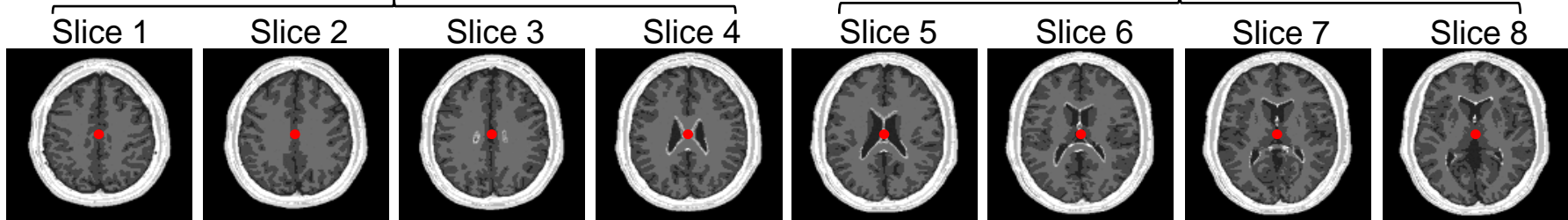
Packet 1

Packet 2

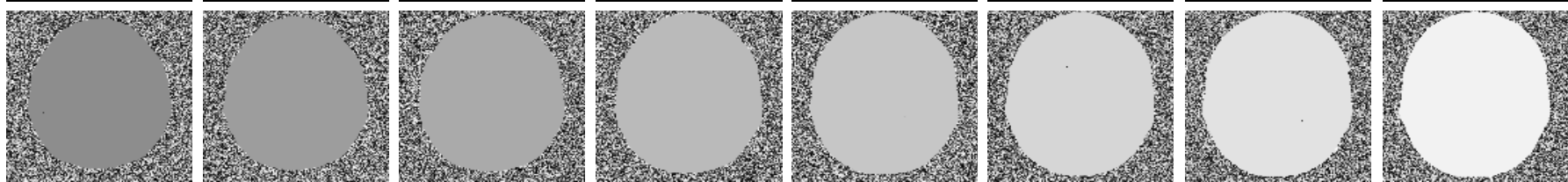
Aliased



Magnitude



Phase



Magnitude² correlations about center voxel

1	0.9080	0.8997	0.9655
0.9080	1	0.9137	0.8972
0.8997	0.9137	1	0.9882
0.9655	0.8972	0.9882	1

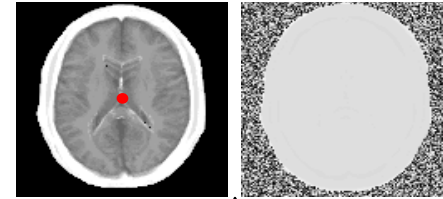
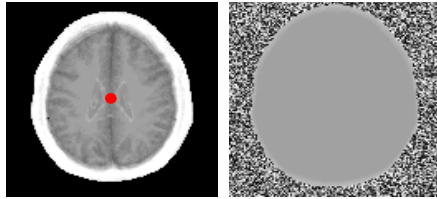
1	0.9084	0.9988	0.9196
0.9084	1	0.9415	0.8996
0.9988	0.9415	1	0.9695
0.9196	0.8996	0.9695	1

$A=4$

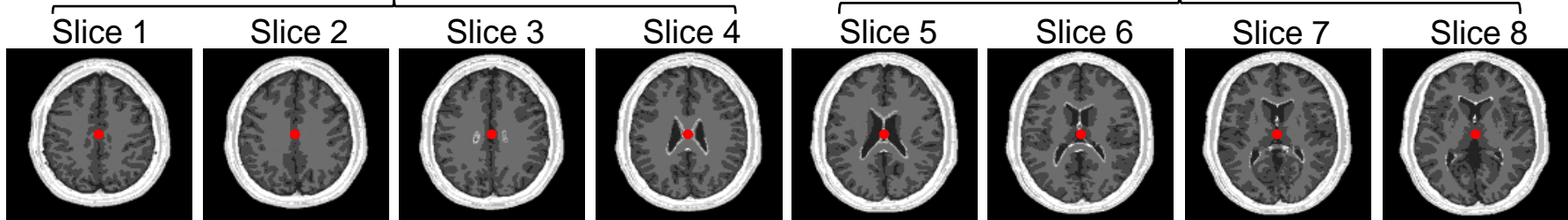
Packet 1

Packet 2

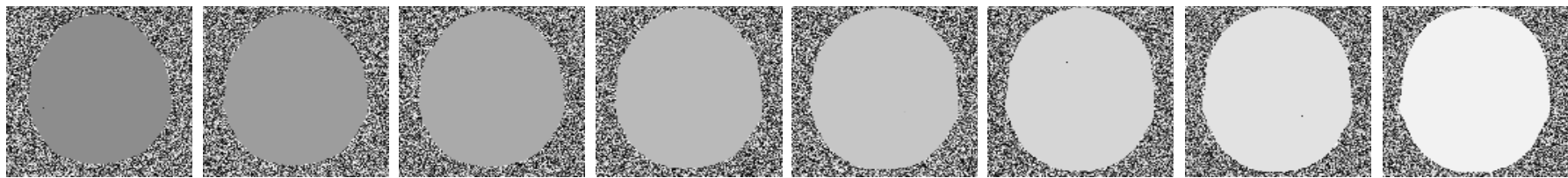
Aliased



Magnitude



Phase



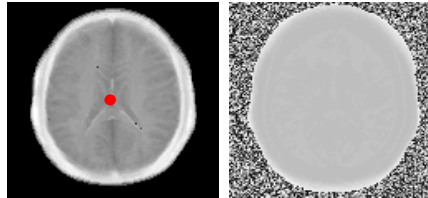
Magnitude² correlations about center voxel

1	-0.0770	-0.0006	0.0649
-0.0770	1	0.0077	-0.0196
-0.0006	0.0077	1	-0.0614
0.0649	-0.0196	-0.0614	1

1	-0.0102	-0.0764	0.0106
-0.0102	1	0.0468	-0.0222
-0.0764	0.0468	1	-0.0659
0.0106	-0.0222	-0.0659	1

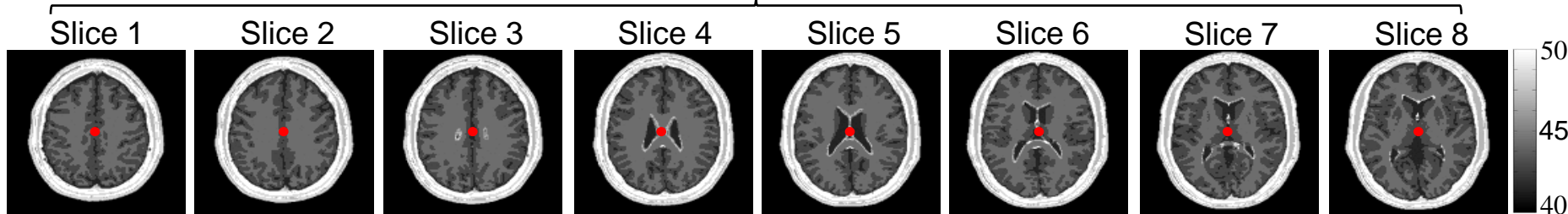
A=8

Packet 1



Aliased

Magnitude

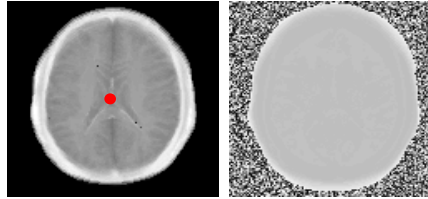


Magnitude² correlations about center voxel

1	0.9358	0.8611	0.9091	0.9048	0.9262	0.9538	0.9375
0.9358	1	0.9409	0.9799	0.9368	0.9317	0.9105	0.9520
0.8611	0.9409	1	0.9458	0.8908	0.9474	0.9325	0.9233
0.9091	0.9799	0.9458	1	0.9467	0.8896	0.9359	0.9057
0.9048	0.9368	0.8908	0.9467	1	0.9451	0.9792	0.9099
0.9262	0.9317	0.9474	0.8896	0.9451	1	0.9412	0.9630
0.9538	0.9105	0.9325	0.9359	0.9792	0.9412	1	0.9365
0.9375	0.9520	0.9233	0.9057	0.9099	0.9630	0.9365	1

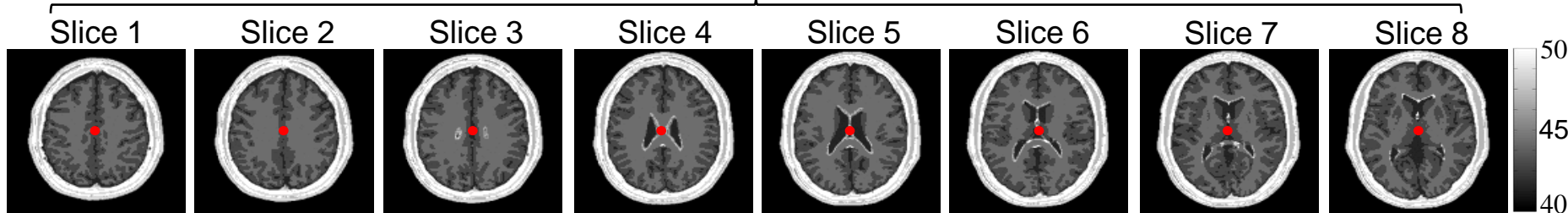
A=8

Packet 1



Aliased

Magnitude



Magnitude² correlations about center voxel

1	-0.0538	0.0546	-0.0451	-0.0125	-0.0226	-0.0454	0.0249
-0.0538	1	0.0297	0.1148	-0.0638	0.0735	-0.0264	-0.0528
0.0546	0.0297	1	0.0028	-0.0021	-0.0473	-0.0358	0.0265
-0.0451	0.1448	0.0028	1	-0.0136	0.1048	0.0233	-0.0078
-0.0125	-0.0638	-0.0021	-0.0136	1	0.0657	-0.0008	-0.1270
-0.0226	0.0735	-0.0473	0.1048	0.0657	1	-0.0631	-0.0225
-0.0454	-0.0264	-0.0358	0.0233	-0.0008	-0.0631	1	-0.0018
0.0249	-0.0528	0.0265	-0.0078	-0.1270	-0.0225	-0.0018	1