Mixed Model Analysis

Model Dimension[a]

		Number of Levels	Covariance Structure	Number of Parameters
Fixed Effects	Intercept	1		1
	SNR	3		2
	Program	6		5
	Azimuth	2		1
	SNR * Program	18		10
	SNR * Azimuth	6		2
	Program * Azimuth	12		5
	SNR * Program * Azimuth	36		10
Random Effects	Audiogram	4	Variance Components	1
Residual				1
Total		88		38

a. Dependent Variable: HASQI.

Information Criteria[a]

-2 Restricted Log Likelihood	-2713.463256
Akaike's Information Criterion (AIC)	-2709.463256
Hurvich and Tsai's Criterion (AICC)	-2709.452474
Bozdogan's Criterion (CAIC)	-2697.428243
Schwarz's Bayesian Criterion (BIC)	-2699.428243

The information criteria are displayed in smaller-is-better form.

a. Dependent Variable: HASQI.

Coefficients of Determination

Pseudo-R Square Measures	Marginal	.548
	Conditional	.749

Intraclass Correlation Coefficients

Overall ICCs	Adjusted	.445
	Conditional	.201

Fixed Effects

Type III Tests of Fixed Effects[a]

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	3.001	38.499	.008
SNR	2	1113.001	866.585	<.001
Program	5	1113.001	74.677	<.001
Azimuth	1	1113.001	108.341	<.001
SNR * Program	10	1113.001	1.686	.079
SNR * Azimuth	2	1113.001	.691	.501
Program * Azimuth	5	1113.001	53.441	<.001
SNR * Program * Azimuth	10	1113.001	1.921	.039

a. Dependent Variable: HASQI.

Covariance Parameters

Estimates of Covariance Parameters[a]

Parameter		Estimate	Std. Error
Residual		.005	.000
Audiogram	Variance	.004	.003

a. Dependent Variable: HASQI.

Estimated Marginal Means

1. SNR

Estimates[a]

SNR	Mean	Std. Error	df	95% Confidence Interval	
				Lower Bound	Upper Bound
-5	.089	.030	3.053	-.007	.185
0	.182	.030	3.053	.087	.278
5	.291	.030	3.053	.196	.387

a. Dependent Variable: HASQI.

Pairwise Comparisons[a]

(I) SNR	(J) SNR	Mean Difference (I-J)	Std. Error	df	Sig.[c]	95% Confidence Interval for Difference[c]	
						Lower Bound	Upper Bound
-5	0	-.093*	.005	1113.001	<.001	-.105	-.081
	5	-.202*	.005	1113.001	<.001	-.214	-.190
0	-5	.093*	.005	1113.001	<.001	.081	.105
	5	-.109*	.005	1113.001	<.001	-.121	-.097
5	-5	.202*	.005	1113.001	<.001	.190	.214
	0	.109*	.005	1113.001	<.001	.097	.121

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Dependent Variable: HASQI.

c. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests[a]

Numerator df	Denominator df	F	Sig.
2	1113.001	866.585	<.001

The F tests the effect of SNR. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Dependent Variable: HASQI.

2. Program

Estimates[a]

Program	Mean	Std. Error	df	95% Confidence Interval	
				Lower Bound	Upper Bound
No Processing	.146	.031	3.132	.051	.241
Beam	.170	.031	3.132	.075	.265
Beam + NoiseBlock	.184	.031	3.132	.089	.279
DNN	.206	.031	3.132	.111	.301
NoiseBlock	.157	.031	3.132	.062	.252
Beam + DNN	.262	.031	3.132	.167	.357

a. Dependent Variable: HASQI.

Pairwise Comparisons[a]

(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df	Sig.[c]
No Processing	Beam	-.024*	.007	1113.001	.007
	Beam + NoiseBlock	-.038*	.007	1113.001	<.001
	DNN	-.060*	.007	1113.001	<.001
	NoiseBlock	-.011	.007	1113.001	1.000
	Beam + DNN	-.116*	.007	1113.001	<.001
Beam	No Processing	.024*	.007	1113.001	.007
	Beam + NoiseBlock	-.014	.007	1113.001	.601
	DNN	-.036*	.007	1113.001	<.001
	NoiseBlock	.013	.007	1113.001	.849
	Beam + DNN	-.092*	.007	1113.001	<.001
Beam + NoiseBlock	No Processing	.038*	.007	1113.001	<.001
	Beam	.014	.007	1113.001	.601
	DNN	-.022*	.007	1113.001	.022
	NoiseBlock	.027*	.007	1113.001	.001
	Beam + DNN	-.077*	.007	1113.001	<.001
DNN	No Processing	.060*	.007	1113.001	<.001
	Beam	.036*	.007	1113.001	<.001
	Beam + NoiseBlock	.022*	.007	1113.001	.022
	NoiseBlock	.049*	.007	1113.001	<.001
	Beam + DNN	-.056*	.007	1113.001	<.001
NoiseBlock	No Processing	.011	.007	1113.001	1.000
	Beam	-.013	.007	1113.001	.849
	Beam + NoiseBlock	-.027*	.007	1113.001	.001
	DNN	-.049*	.007	1113.001	<.001
	Beam + DNN	-.105*	.007	1113.001	<.001
Beam + DNN	No Processing	.116*	.007	1113.001	<.001
	Beam	.092*	.007	1113.001	<.001
	Beam + NoiseBlock	.077*	.007	1113.001	<.001
	DNN	.056*	.007	1113.001	<.001
	NoiseBlock	.105*	.007	1113.001	<.001

Pairwise Comparisons[a]

(I) Program	(J) Program	95% Confidence Interval for Difference[c] Lower Bound	Upper Bound
No Processing	Beam	-.044	-.004
	Beam + NoiseBlock	-.059	-.018
	DNN	-.080	-.040
	NoiseBlock	-.031	.009
	Beam + DNN	-.136	-.096
Beam	No Processing	.004	.044
	Beam + NoiseBlock	-.034	.006
	DNN	-.056	-.016
	NoiseBlock	-.007	.033
	Beam + DNN	-.112	-.071
Beam + NoiseBlock	No Processing	.018	.059
	Beam	-.006	.034
	DNN	-.042	-.002
	NoiseBlock	.007	.047
	Beam + DNN	-.098	-.057
DNN	No Processing	.040	.080
	Beam	.016	.056
	Beam + NoiseBlock	.002	.042
	NoiseBlock	.029	.069
	Beam + DNN	-.076	-.035
NoiseBlock	No Processing	-.009	.031
	Beam	-.033	.007
	Beam + NoiseBlock	-.047	-.007
	DNN	-.069	-.029
	Beam + DNN	-.125	-.084
Beam + DNN	No Processing	.096	.136
	Beam	.071	.112
	Beam + NoiseBlock	.057	.098
	DNN	.035	.076
	NoiseBlock	.084	.125

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Dependent Variable: HASQI.

c. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests[a]

Numerator df	Denominator df	F	Sig.
5	1113.001	74.677	<.001

The F tests the effect of Program. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Dependent Variable: HASQI.

3. Azimuth

Estimates[a]

Azimuth	Mean	Std. Error	df	95% Confidence Interval	
				Lower Bound	Upper Bound
0_degrees	.167	.030	3.027	.071	.263
90_degrees	.208	.030	3.027	.112	.304

a. Dependent Variable: HASQI.

Pairwise Comparisons[a]

(I) Azimuth	(J) Azimuth	Mean Difference (I-J)	Std. Error	df	Sig.[c]	95% Confidence Interval for [c]...
						Lower Bound
0_degrees	90_degrees	-.041*	.004	1113.001	<.001	-.049
90_degrees	0_degrees	.041*	.004	1113.001	<.001	.034

Pairwise Comparisons[a]

(I) Azimuth	(J) Azimuth	95% Confidence Interval for [c]...
		Upper Bound
0_degrees	90_degrees	-.034
90_degrees	0_degrees	.049

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Dependent Variable: HASQI.

c. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests[a]

Numerator df	Denominator df	F	Sig.
1	1113.001	108.341	<.001

The F tests the effect of Azimuth. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Dependent Variable: HASQI.

4. SNR * Program

Estimates[a]

SNR	Program	Mean	Std. Error	df	95% Confidence Interval	
					Lower Bound	Upper Bound
-5	No Processing	.058	.031	3.457	-.034	.151
	Beam	.080	.031	3.457	-.012	.173
	Beam + NoiseBlock	.089	.031	3.457	-.004	.181
	DNN	.100	.031	3.457	.007	.193
	NoiseBlock	.065	.031	3.457	-.028	.158
	Beam + DNN	.142	.031	3.457	.050	.235
0	No Processing	.135	.031	3.457	.043	.228
	Beam	.164	.031	3.457	.072	.257
	Beam + NoiseBlock	.180	.031	3.457	.087	.273
	DNN	.200	.031	3.457	.107	.293
	NoiseBlock	.148	.031	3.457	.055	.240
	Beam + DNN	.266	.031	3.457	.173	.359
5	No Processing	.244	.031	3.457	.151	.336
	Beam	.266	.031	3.457	.173	.359
	Beam + NoiseBlock	.284	.031	3.457	.191	.377
	DNN	.319	.031	3.457	.226	.411
	NoiseBlock	.258	.031	3.457	.166	.351
	Beam + DNN	.377	.031	3.457	.284	.469

a. Dependent Variable: HASQI.

Pairwise Comparisons[a]

SNR	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df	Sig.[c]
-5	No Processing	Beam	-.022	.012	1113.001	1.000
		Beam + NoiseBlock	-.030	.012	1113.001	.165
		DNN	-.041*	.012	1113.001	.008
		NoiseBlock	-.007	.012	1113.001	1.000
		Beam + DNN	-.084*	.012	1113.001	<.001
	Beam	No Processing	.022	.012	1113.001	1.000
		Beam + NoiseBlock	-.009	.012	1113.001	1.000
		DNN	-.020	.012	1113.001	1.000
		NoiseBlock	.015	.012	1113.001	1.000
		Beam + DNN	-.062*	.012	1113.001	<.001
	Beam + NoiseBlock	No Processing	.030	.012	1113.001	.165
		Beam	.009	.012	1113.001	1.000
		DNN	-.011	.012	1113.001	1.000
		NoiseBlock	.024	.012	1113.001	.706
		Beam + DNN	-.054*	.012	1113.001	<.001
	DNN	No Processing	.041*	.012	1113.001	.008
		Beam	.020	.012	1113.001	1.000
		Beam + NoiseBlock	.011	.012	1113.001	1.000
		NoiseBlock	.035	.012	1113.001	.053
		Beam + DNN	-.043*	.012	1113.001	.006
	NoiseBlock	No Processing	.007	.012	1113.001	1.000
		Beam	-.015	.012	1113.001	1.000
		Beam + NoiseBlock	-.024	.012	1113.001	.706
		DNN	-.035	.012	1113.001	.053
		Beam + DNN	-.077*	.012	1113.001	<.001
	Beam + DNN	No Processing	.084*	.012	1113.001	<.001
		Beam	.062*	.012	1113.001	<.001
		Beam + NoiseBlock	.054*	.012	1113.001	<.001
		DNN	.043*	.012	1113.001	.006
		NoiseBlock	.077*	.012	1113.001	<.001
0	No Processing	Beam	-.029	.012	1113.001	.232
		Beam + NoiseBlock	-.045*	.012	1113.001	.003
		DNN	-.064*	.012	1113.001	<.001
		NoiseBlock	-.012	.012	1113.001	1.000
		Beam + DNN	-.131*	.012	1113.001	<.001

Pairwise Comparisons[a]

SNR	(I) Program	(J) Program	95% Confidence Interval for Difference[c]	
			Lower Bound	Upper Bound
-5	No Processing	Beam	-.057	.013
		Beam + NoiseBlock	-.065	.005
		DNN	-.077	-.006
		NoiseBlock	-.042	.028
		Beam + DNN	-.119	-.049
	Beam	No Processing	-.013	.057
		Beam + NoiseBlock	-.044	.026
		DNN	-.055	.015
		NoiseBlock	-.020	.050
		Beam + DNN	-.097	-.027
	Beam + NoiseBlock	No Processing	-.005	.065
		Beam	-.026	.044
		DNN	-.046	.024
		NoiseBlock	-.011	.059
		Beam + DNN	-.089	-.019
	DNN	No Processing	.006	.077
		Beam	-.015	.055
		Beam + NoiseBlock	-.024	.046
		NoiseBlock	.000	.070
		Beam + DNN	-.078	-.008
	NoiseBlock	No Processing	-.028	.042
		Beam	-.050	.020
		Beam + NoiseBlock	-.059	.011
		DNN	-.070	.000
		Beam + DNN	-.112	-.042
	Beam + DNN	No Processing	.049	.119
		Beam	.027	.097
		Beam + NoiseBlock	.019	.089
		DNN	.008	.078
		NoiseBlock	.042	.112
0	No Processing	Beam	-.064	.006
		Beam + NoiseBlock	-.080	-.010
		DNN	-.099	-.029
		NoiseBlock	-.047	.023
		Beam + DNN	-.166	-.096

Pairwise Comparisons[a]

SNR	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df	Sig.[c]
	Beam	No Processing	.029	.012	1113.001	.232
		Beam + NoiseBlock	-.016	.012	1113.001	1.000
		DNN	-.036*	.012	1113.001	.043
		NoiseBlock	.017	.012	1113.001	1.000
		Beam + DNN	-.102*	.012	1113.001	<.001
	Beam + NoiseBlock	No Processing	.045*	.012	1113.001	.003
		Beam	.016	.012	1113.001	1.000
		DNN	-.020	.012	1113.001	1.000
		NoiseBlock	.033	.012	1113.001	.096
		Beam + DNN	-.086*	.012	1113.001	<.001
	DNN	No Processing	.064*	.012	1113.001	<.001
		Beam	.036*	.012	1113.001	.043
		Beam + NoiseBlock	.020	.012	1113.001	1.000
		NoiseBlock	.052*	.012	1113.001	<.001
		Beam + DNN	-.066*	.012	1113.001	<.001
	NoiseBlock	No Processing	.012	.012	1113.001	1.000
		Beam	-.017	.012	1113.001	1.000
		Beam + NoiseBlock	-.033	.012	1113.001	.096
		DNN	-.052*	.012	1113.001	<.001
		Beam + DNN	-.118*	.012	1113.001	<.001
	Beam + DNN	No Processing	.131*	.012	1113.001	<.001
		Beam	.102*	.012	1113.001	<.001
		Beam + NoiseBlock	.086*	.012	1113.001	<.001
		DNN	.066*	.012	1113.001	<.001
		NoiseBlock	.118*	.012	1113.001	<.001
5	No Processing	Beam	-.022	.012	1113.001	.944
		Beam + NoiseBlock	-.040*	.012	1113.001	.012
		DNN	-.075*	.012	1113.001	<.001
		NoiseBlock	-.015	.012	1113.001	1.000
		Beam + DNN	-.133*	.012	1113.001	<.001
	Beam	No Processing	.022	.012	1113.001	.944
		Beam + NoiseBlock	-.018	.012	1113.001	1.000
		DNN	-.053*	.012	1113.001	<.001
		NoiseBlock	.008	.012	1113.001	1.000
		Beam + DNN	-.111*	.012	1113.001	<.001

Pairwise Comparisons[a]

SNR	(I) Program	(J) Program	95% Confidence Interval for Difference[c]	
			Lower Bound	Upper Bound
	Beam	No Processing	-.006	.064
		Beam + NoiseBlock	-.051	.019
		DNN	-.071	-.001
		NoiseBlock	-.018	.052
		Beam + DNN	-.137	-.067
	Beam + NoiseBlock	No Processing	.010	.080
		Beam	-.019	.051
		DNN	-.055	.015
		NoiseBlock	-.002	.068
		Beam + DNN	-.121	-.051
	DNN	No Processing	.029	.099
		Beam	.001	.071
		Beam + NoiseBlock	-.015	.055
		NoiseBlock	.017	.087
		Beam + DNN	-.101	-.031
	NoiseBlock	No Processing	-.023	.047
		Beam	-.052	.018
		Beam + NoiseBlock	-.068	.002
		DNN	-.087	-.017
		Beam + DNN	-.154	-.083
	Beam + DNN	No Processing	.096	.166
		Beam	.067	.137
		Beam + NoiseBlock	.051	.121
		DNN	.031	.101
		NoiseBlock	.083	.154
5	No Processing	Beam	-.057	.013
		Beam + NoiseBlock	-.075	-.005
		DNN	-.110	-.040
		NoiseBlock	-.050	.020
		Beam + DNN	-.168	-.098
	Beam	No Processing	-.013	.057
		Beam + NoiseBlock	-.053	.017
		DNN	-.088	-.018
		NoiseBlock	-.027	.043
		Beam + DNN	-.146	-.076

Pairwise Comparisons[a]

SNR	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df	Sig.[c]
	Beam + NoiseBlock	No Processing	.040*	.012	1113.001	.012
		Beam	.018	.012	1113.001	1.000
		DNN	-.035	.012	1113.001	.054
		NoiseBlock	.026	.012	1113.001	.483
		Beam + DNN	-.093*	.012	1113.001	<.001
	DNN	No Processing	.075*	.012	1113.001	<.001
		Beam	.053*	.012	1113.001	<.001
		Beam + NoiseBlock	.035	.012	1113.001	.054
		NoiseBlock	.060*	.012	1113.001	<.001
		Beam + DNN	-.058*	.012	1113.001	<.001
	NoiseBlock	No Processing	.015	.012	1113.001	1.000
		Beam	-.008	.012	1113.001	1.000
		Beam + NoiseBlock	-.026	.012	1113.001	.483
		DNN	-.060*	.012	1113.001	<.001
		Beam + DNN	-.118*	.012	1113.001	<.001
	Beam + DNN	No Processing	.133*	.012	1113.001	<.001
		Beam	.111*	.012	1113.001	<.001
		Beam + NoiseBlock	.093*	.012	1113.001	<.001
		DNN	.058*	.012	1113.001	<.001
		NoiseBlock	.118*	.012	1113.001	<.001

Pairwise Comparisons[a]

SNR	(I) Program	(J) Program	95% Confidence Interval for Difference[c] Lower Bound	Upper Bound
	Beam + NoiseBlock	No Processing	.005	.075
		Beam	-.017	.053
		DNN	-.070	.000
		NoiseBlock	-.009	.061
		Beam + DNN	-.128	-.058
	DNN	No Processing	.040	.110
		Beam	.018	.088
		Beam + NoiseBlock	.000	.070
		NoiseBlock	.025	.095
		Beam + DNN	-.093	-.023
	NoiseBlock	No Processing	-.020	.050
		Beam	-.043	.027
		Beam + NoiseBlock	-.061	.009
		DNN	-.095	-.025
		Beam + DNN	-.153	-.083
	Beam + DNN	No Processing	.098	.168
		Beam	.076	.146
		Beam + NoiseBlock	.058	.128
		DNN	.023	.093
		NoiseBlock	.083	.153

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Dependent Variable: HASQI.

c. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests[a]

SNR	Numerator df	Denominator df	F	Sig.
-5	5	1113.001	12.868	<.001
0	5	1113.001	31.196	<.001
5	5	1113.001	33.985	<.001

Each F tests the simple effects of Program within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Dependent Variable: HASQI.

5. SNR * Azimuth[a]

SNR	Azimuth	Mean	Std. Error	df	95% Confidence Interval	
					Lower Bound	Upper Bound
-5	0_degrees	.072	.031	3.132	-.023	.167
	90_degrees	.107	.031	3.132	.012	.202
0	0_degrees	.159	.031	3.132	.064	.254
	90_degrees	.205	.031	3.132	.110	.300
5	0_degrees	.270	.031	3.132	.175	.365
	90_degrees	.313	.031	3.132	.218	.408

a. Dependent Variable: HASQI.

6. Program * Azimuth

Estimates[a]

Program	Azimuth	Mean	Std. Error	df	95% Confidence Interval	
					Lower Bound	Upper Bound
No Processing	0_degrees	.098	.031	3.292	.004	.192
	90_degrees	.194	.031	3.292	.100	.287
Beam	0_degrees	.192	.031	3.292	.098	.285
	90_degrees	.149	.031	3.292	.055	.242
Beam + NoiseBlock	0_degrees	.203	.031	3.292	.109	.297
	90_degrees	.165	.031	3.292	.072	.259
DNN	0_degrees	.149	.031	3.292	.055	.243
	90_degrees	.264	.031	3.292	.170	.357
NoiseBlock	0_degrees	.108	.031	3.292	.015	.202
	90_degrees	.206	.031	3.292	.112	.300
Beam + DNN	0_degrees	.252	.031	3.292	.158	.345
	90_degrees	.272	.031	3.292	.178	.366

a. Dependent Variable: HASQI.

Pairwise Comparisons[a]

Azimuth	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df
0_degrees	No Processing	Beam	-.093*	.010	1113.001
		Beam + NoiseBlock	-.105*	.010	1113.001
		DNN	-.051*	.010	1113.001
		NoiseBlock	-.010	.010	1113.001
		Beam + DNN	-.153*	.010	1113.001
	Beam	No Processing	.093*	.010	1113.001
		Beam + NoiseBlock	-.012	.010	1113.001
		DNN	.043*	.010	1113.001
		NoiseBlock	.083*	.010	1113.001
		Beam + DNN	-.060*	.010	1113.001
	Beam + NoiseBlock	No Processing	.105*	.010	1113.001
		Beam	.012	.010	1113.001
		DNN	.054*	.010	1113.001
		NoiseBlock	.095*	.010	1113.001
		Beam + DNN	-.048*	.010	1113.001
	DNN	No Processing	.051*	.010	1113.001
		Beam	-.043*	.010	1113.001
		Beam + NoiseBlock	-.054*	.010	1113.001
		NoiseBlock	.041*	.010	1113.001
		Beam + DNN	-.103*	.010	1113.001
	NoiseBlock	No Processing	.010	.010	1113.001
		Beam	-.083*	.010	1113.001
		Beam + NoiseBlock	-.095*	.010	1113.001
		DNN	-.041*	.010	1113.001
		Beam + DNN	-.143*	.010	1113.001
	Beam + DNN	No Processing	.153*	.010	1113.001
		Beam	.060*	.010	1113.001
		Beam + NoiseBlock	.048*	.010	1113.001
		DNN	.103*	.010	1113.001
		NoiseBlock	.143*	.010	1113.001
90_degrees	No Processing	Beam	.045*	.010	1113.001
		Beam + NoiseBlock	.028	.010	1113.001

Pairwise Comparisons[a]

Azimuth	(I) Program	(J) Program	Sig.[c]	95% Confidence Interval for Difference[c]	
				Lower Bound	Upper Bound
0_degrees	No Processing	Beam	<.001	-.122	-.065
		Beam + NoiseBlock	<.001	-.134	-.076
		DNN	<.001	-.079	-.022
		NoiseBlock	1.000	-.039	.018
		Beam + DNN	<.001	-.182	-.125
	Beam	No Processing	<.001	.065	.122
		Beam + NoiseBlock	1.000	-.040	.017
		DNN	<.001	.014	.071
		NoiseBlock	<.001	.055	.112
		Beam + DNN	<.001	-.089	-.031
	Beam + NoiseBlock	No Processing	<.001	.076	.134
		Beam	1.000	-.017	.040
		DNN	<.001	.026	.083
		NoiseBlock	<.001	.066	.123
		Beam + DNN	<.001	-.077	-.020
	DNN	No Processing	<.001	.022	.079
		Beam	<.001	-.071	-.014
		Beam + NoiseBlock	<.001	-.083	-.026
		NoiseBlock	<.001	.012	.069
		Beam + DNN	<.001	-.131	-.074
	NoiseBlock	No Processing	1.000	-.018	.039
		Beam	<.001	-.112	-.055
		Beam + NoiseBlock	<.001	-.123	-.066
		DNN	<.001	-.069	-.012
		Beam + DNN	<.001	-.172	-.115
	Beam + DNN	No Processing	<.001	.125	.182
		Beam	<.001	.031	.089
		Beam + NoiseBlock	<.001	.020	.077
		DNN	<.001	.074	.131
		NoiseBlock	<.001	.115	.172
90_degrees	No Processing	Beam	<.001	.016	.074
		Beam + NoiseBlock	.057	.000	.057

Pairwise Comparisons[a]

Azimuth	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df
		DNN	-.070*	.010	1113.001
		NoiseBlock	-.012	.010	1113.001
		Beam + DNN	-.078*	.010	1113.001
	Beam	No Processing	-.045*	.010	1113.001
		Beam + NoiseBlock	-.017	.010	1113.001
		DNN	-.115*	.010	1113.001
		NoiseBlock	-.057*	.010	1113.001
		Beam + DNN	-.123*	.010	1113.001
	Beam + NoiseBlock	No Processing	-.028	.010	1113.001
		Beam	.017	.010	1113.001
		DNN	-.098*	.010	1113.001
		NoiseBlock	-.040*	.010	1113.001
		Beam + DNN	-.106*	.010	1113.001
	DNN	No Processing	.070*	.010	1113.001
		Beam	.115*	.010	1113.001
		Beam + NoiseBlock	.098*	.010	1113.001
		NoiseBlock	.058*	.010	1113.001
		Beam + DNN	-.008	.010	1113.001
	NoiseBlock	No Processing	.012	.010	1113.001
		Beam	.057*	.010	1113.001
		Beam + NoiseBlock	.040*	.010	1113.001
		DNN	-.058*	.010	1113.001
		Beam + DNN	-.066*	.010	1113.001
	Beam + DNN	No Processing	.078*	.010	1113.001
		Beam	.123*	.010	1113.001
		Beam + NoiseBlock	.106*	.010	1113.001
		DNN	.008	.010	1113.001
		NoiseBlock	.066*	.010	1113.001

Pairwise Comparisons[a]

Azimuth	(I) Program	(J) Program	Sig.[c]	95% Confidence Interval for Difference[c]	
				Lower Bound	Upper Bound
		DNN	<.001	-.098	-.041
		NoiseBlock	1.000	-.041	.016
		Beam + DNN	<.001	-.107	-.050
	Beam	No Processing	<.001	-.074	-.016
		Beam + NoiseBlock	1.000	-.045	.012
		DNN	<.001	-.143	-.086
		NoiseBlock	<.001	-.086	-.029
		Beam + DNN	<.001	-.152	-.094
	Beam + NoiseBlock	No Processing	.057	-.057	.000
		Beam	1.000	-.012	.045
		DNN	<.001	-.127	-.069
		NoiseBlock	<.001	-.069	-.012
		Beam + DNN	<.001	-.135	-.078
	DNN	No Processing	<.001	.041	.098
		Beam	<.001	.086	.143
		Beam + NoiseBlock	<.001	.069	.127
		NoiseBlock	<.001	.029	.086
		Beam + DNN	1.000	-.037	.020
	NoiseBlock	No Processing	1.000	-.016	.041
		Beam	<.001	.029	.086
		Beam + NoiseBlock	<.001	.012	.069
		DNN	<.001	-.086	-.029
		Beam + DNN	<.001	-.095	-.037
	Beam + DNN	No Processing	<.001	.050	.107
		Beam	<.001	.094	.152
		Beam + NoiseBlock	<.001	.078	.135
		DNN	1.000	-.020	.037
		NoiseBlock	<.001	.037	.095

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Dependent Variable: HASQI.

c. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests[a]

Azimuth	Numerator df	Denominator df	F	Sig.
0_degrees	5	1113.001	74.439	<.001
90_degrees	5	1113.001	53.680	<.001

Each F tests the simple effects of Program within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Dependent Variable: HASQI.

7. SNR * Program * Azimuth

Estimates[a]

SNR	Program	Azimuth	Mean	Std. Error	df	95% ... Lower Bound
-5	No Processing	0_degrees	.028	.032	3.974	-.062
		90_degrees	.088	.032	3.974	-.002
	Beam	0_degrees	.090	.032	3.974	.000
		90_degrees	.070	.032	3.974	-.020
	Beam + NoiseBlock	0_degrees	.098	.032	3.974	.008
		90_degrees	.079	.032	3.974	-.011
	DNN	0_degrees	.050	.032	3.974	-.040
		90_degrees	.149	.032	3.974	.059
	NoiseBlock	0_degrees	.032	.032	3.974	-.058
		90_degrees	.098	.032	3.974	.008
	Beam + DNN	0_degrees	.131	.032	3.974	.041
		90_degrees	.154	.032	3.974	.064
0	No Processing	0_degrees	.084	.032	3.974	-.006
		90_degrees	.187	.032	3.974	.096
	Beam	0_degrees	.186	.032	3.974	.096
		90_degrees	.143	.032	3.974	.052
	Beam + NoiseBlock	0_degrees	.199	.032	3.974	.109
		90_degrees	.161	.032	3.974	.070
	DNN	0_degrees	.136	.032	3.974	.046
		90_degrees	.264	.032	3.974	.173
	NoiseBlock	0_degrees	.094	.032	3.974	.004
		90_degrees	.201	.032	3.974	.110
	Beam + DNN	0_degrees	.256	.032	3.974	.166
		90_degrees	.276	.032	3.974	.186
5	No Processing	0_degrees	.182	.032	3.974	.091
		90_degrees	.306	.032	3.974	.216

Estimates[a]

SNR	Program	Azimuth	95% ... Upper Bound
-5	No Processing	0_degrees	.119
		90_degrees	.179
	Beam	0_degrees	.180
		90_degrees	.161
	Beam + NoiseBlock	0_degrees	.189
		90_degrees	.169
	DNN	0_degrees	.141
		90_degrees	.240
	NoiseBlock	0_degrees	.122
		90_degrees	.188
	Beam + DNN	0_degrees	.221
		90_degrees	.244
0	No Processing	0_degrees	.174
		90_degrees	.277
	Beam	0_degrees	.276
		90_degrees	.233
	Beam + NoiseBlock	0_degrees	.290
		90_degrees	.251
	DNN	0_degrees	.226
		90_degrees	.354
	NoiseBlock	0_degrees	.185
		90_degrees	.291
	Beam + DNN	0_degrees	.346
		90_degrees	.366
5	No Processing	0_degrees	.272
		90_degrees	.396

Estimates[a]

SNR	Program	Azimuth	Mean	Std. Error	df	95% ... Lower Bound
	Beam	0_degrees	.299	.032	3.974	.208
		90_degrees	.233	.032	3.974	.143
	Beam + NoiseBlock	0_degrees	.311	.032	3.974	.221
		90_degrees	.257	.032	3.974	.166
	DNN	0_degrees	.260	.032	3.974	.170
		90_degrees	.377	.032	3.974	.287
	NoiseBlock	0_degrees	.198	.032	3.974	.108
		90_degrees	.319	.032	3.974	.228
	Beam + DNN	0_degrees	.368	.032	3.974	.277
		90_degrees	.385	.032	3.974	.295

Estimates[a]

SNR	Program	Azimuth	95% ... Upper Bound
	Beam	0_degrees	.389
		90_degrees	.324
	Beam + NoiseBlock	0_degrees	.402
		90_degrees	.347
	DNN	0_degrees	.350
		90_degrees	.468
	NoiseBlock	0_degrees	.288
		90_degrees	.409
	Beam + DNN	0_degrees	.458
		90_degrees	.476

a. Dependent Variable: HASQI.

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df
-5	0_degrees	No Processing	Beam	-.062*	.017	1113.001
			Beam + NoiseBlock	-.070*	.017	1113.001
			DNN	-.022	.017	1113.001
			NoiseBlock	-.004	.017	1113.001
			Beam + DNN	-.103*	.017	1113.001
		Beam	No Processing	.062*	.017	1113.001
			Beam + NoiseBlock	-.008	.017	1113.001
			DNN	.040	.017	1113.001
			NoiseBlock	.058*	.017	1113.001
			Beam + DNN	-.041	.017	1113.001
		Beam + NoiseBlock	No Processing	.070*	.017	1113.001
			Beam	.008	.017	1113.001
			DNN	.048	.017	1113.001
			NoiseBlock	.066*	.017	1113.001
			Beam + DNN	-.033	.017	1113.001
		DNN	No Processing	.022	.017	1113.001
			Beam	-.040	.017	1113.001
			Beam + NoiseBlock	-.048	.017	1113.001
			NoiseBlock	.018	.017	1113.001
			Beam + DNN	-.081*	.017	1113.001
		NoiseBlock	No Processing	.004	.017	1113.001
			Beam	-.058*	.017	1113.001
			Beam + NoiseBlock	-.066*	.017	1113.001
			DNN	-.018	.017	1113.001
			Beam + DNN	-.099*	.017	1113.001
		Beam + DNN	No Processing	.103*	.017	1113.001
			Beam	.041	.017	1113.001
			Beam + NoiseBlock	.033	.017	1113.001
			DNN	.081*	.017	1113.001
			NoiseBlock	.099*	.017	1113.001
	90_degrees	No Processing	Beam	.018	.017	1113.001
			Beam + NoiseBlock	.009	.017	1113.001
			DNN	-.061*	.017	1113.001
			NoiseBlock	-.010	.017	1113.001
			Beam + DNN	-.065*	.017	1113.001

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	Sig.[c]	95% Confidence Interval for [c]... Lower Bound
-5	0_degrees	No Processing	Beam	.004	-.111
			Beam + NoiseBlock	<.001	-.119
			DNN	1.000	-.071
			NoiseBlock	1.000	-.053
			Beam + DNN	<.001	-.152
		Beam	No Processing	.004	.012
			Beam + NoiseBlock	1.000	-.058
			DNN	.282	-.010
			NoiseBlock	.009	.009
			Beam + DNN	.225	-.091
		Beam + NoiseBlock	No Processing	<.001	.020
			Beam	1.000	-.041
			DNN	.067	-.002
			NoiseBlock	.001	.017
			Beam + DNN	.786	-.082
		DNN	No Processing	1.000	-.028
			Beam	.282	-.089
			Beam + NoiseBlock	.067	-.097
			NoiseBlock	1.000	-.031
			Beam + DNN	<.001	-.130
		NoiseBlock	No Processing	1.000	-.046
			Beam	.009	-.108
			Beam + NoiseBlock	.001	-.116
			DNN	1.000	-.068
			Beam + DNN	<.001	-.149
		Beam + DNN	No Processing	<.001	.053
			Beam	.225	-.009
			Beam + NoiseBlock	.786	-.017
			DNN	<.001	.031
			NoiseBlock	<.001	.050
	90_degrees	No Processing	Beam	1.000	-.031
			Beam + NoiseBlock	1.000	-.040
			DNN	.005	-.111
			NoiseBlock	1.000	-.059
			Beam + DNN	.002	-.115

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	95% Confidence Interval for [c]... Upper Bound
-5	0_degrees	No Processing	Beam	-.012
			Beam + NoiseBlock	-.020
			DNN	.028
			NoiseBlock	.046
			Beam + DNN	-.053
		Beam	No Processing	.111
			Beam + NoiseBlock	.041
			DNN	.089
			NoiseBlock	.108
			Beam + DNN	.009
		Beam + NoiseBlock	No Processing	.119
			Beam	.058
			DNN	.097
			NoiseBlock	.116
			Beam + DNN	.017
		DNN	No Processing	.071
			Beam	.010
			Beam + NoiseBlock	.002
			NoiseBlock	.068
			Beam + DNN	-.031
		NoiseBlock	No Processing	.053
			Beam	-.009
			Beam + NoiseBlock	-.017
			DNN	.031
			Beam + DNN	-.050
		Beam + DNN	No Processing	.152
			Beam	.091
			Beam + NoiseBlock	.082
			DNN	.130
			NoiseBlock	.149
	90_degrees	No Processing	Beam	.068
			Beam + NoiseBlock	.059
			DNN	-.012
			NoiseBlock	.040
			Beam + DNN	-.016

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df
		Beam	No Processing	-.018	.017	1113.001
			Beam + NoiseBlock	-.009	.017	1113.001
			DNN	-.079*	.017	1113.001
			NoiseBlock	-.028	.017	1113.001
			Beam + DNN	-.084*	.017	1113.001
		Beam + NoiseBlock	No Processing	-.009	.017	1113.001
			Beam	.009	.017	1113.001
			DNN	-.070*	.017	1113.001
			NoiseBlock	-.019	.017	1113.001
			Beam + DNN	-.075*	.017	1113.001
		DNN	No Processing	.061*	.017	1113.001
			Beam	.079*	.017	1113.001
			Beam + NoiseBlock	.070*	.017	1113.001
			NoiseBlock	.051*	.017	1113.001
			Beam + DNN	-.004	.017	1113.001
		NoiseBlock	No Processing	.010	.017	1113.001
			Beam	.028	.017	1113.001
			Beam + NoiseBlock	.019	.017	1113.001
			DNN	-.051*	.017	1113.001
			Beam + DNN	-.056*	.017	1113.001
		Beam + DNN	No Processing	.065*	.017	1113.001
			Beam	.084*	.017	1113.001
			Beam + NoiseBlock	.075*	.017	1113.001
			DNN	.004	.017	1113.001
			NoiseBlock	.056*	.017	1113.001
0	0_degrees	No Processing	Beam	-.102*	.017	1113.001
			Beam + NoiseBlock	-.115*	.017	1113.001
			DNN	-.052*	.017	1113.001
			NoiseBlock	-.010	.017	1113.001
			Beam + DNN	-.172*	.017	1113.001
		Beam	No Processing	.102*	.017	1113.001
			Beam + NoiseBlock	-.013	.017	1113.001
			DNN	.050*	.017	1113.001
			NoiseBlock	.092*	.017	1113.001
			Beam + DNN	-.070*	.017	1113.001

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	Sig.[c]	95% Confidence Interval for [c]... Lower Bound
		Beam	No Processing	1.000	-.068
			Beam + NoiseBlock	1.000	-.058
			DNN	<.001	-.129
			NoiseBlock	1.000	-.077
			Beam + DNN	<.001	-.133
		Beam + NoiseBlock	No Processing	1.000	-.059
			Beam	1.000	-.041
			DNN	<.001	-.120
			NoiseBlock	1.000	-.069
			Beam + DNN	<.001	-.124
		DNN	No Processing	.005	.012
			Beam	<.001	.030
			Beam + NoiseBlock	<.001	.021
			NoiseBlock	.036	.002
			Beam + DNN	1.000	-.054
		NoiseBlock	No Processing	1.000	-.040
			Beam	1.000	-.022
			Beam + NoiseBlock	1.000	-.031
			DNN	.036	-.101
			Beam + DNN	.015	-.105
		Beam + DNN	No Processing	.002	.016
			Beam	<.001	.034
			Beam + NoiseBlock	<.001	.025
			DNN	1.000	-.045
			NoiseBlock	.015	.006
0	0_degrees	No Processing	Beam	<.001	-.151
			Beam + NoiseBlock	<.001	-.165
			DNN	.031	-.102
			NoiseBlock	1.000	-.060
			Beam + DNN	<.001	-.221
		Beam	No Processing	<.001	.052
			Beam + NoiseBlock	1.000	-.063
			DNN	.046	.000
			NoiseBlock	<.001	.042
			Beam + DNN	<.001	-.119

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	95% Confidence Interval for [c]... Upper Bound
		Beam	No Processing	.031
			Beam + NoiseBlock	.041
			DNN	-.030
			NoiseBlock	.022
			Beam + DNN	-.034
		Beam + NoiseBlock	No Processing	.040
			Beam	.058
			DNN	-.021
			NoiseBlock	.031
			Beam + DNN	-.025
		DNN	No Processing	.111
			Beam	.129
			Beam + NoiseBlock	.120
			NoiseBlock	.101
			Beam + DNN	.045
		NoiseBlock	No Processing	.059
			Beam	.077
			Beam + NoiseBlock	.069
			DNN	-.002
			Beam + DNN	-.006
		Beam + DNN	No Processing	.115
			Beam	.133
			Beam + NoiseBlock	.124
			DNN	.054
			NoiseBlock	.105
0	0_degrees	No Processing	Beam	-.052
			Beam + NoiseBlock	-.066
			DNN	-.002
			NoiseBlock	.039
			Beam + DNN	-.122
		Beam	No Processing	.151
			Beam + NoiseBlock	.036
			DNN	.099
			NoiseBlock	.141
			Beam + DNN	-.020

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df
		Beam + NoiseBlock	No Processing	.115*	.017	1113.001
			Beam	.013	.017	1113.001
			DNN	.063*	.017	1113.001
			NoiseBlock	.105*	.017	1113.001
			Beam + DNN	-.056*	.017	1113.001
		DNN	No Processing	.052*	.017	1113.001
			Beam	-.050*	.017	1113.001
			Beam + NoiseBlock	-.063*	.017	1113.001
			NoiseBlock	.042	.017	1113.001
			Beam + DNN	-.120*	.017	1113.001
		NoiseBlock	No Processing	.010	.017	1113.001
			Beam	-.092*	.017	1113.001
			Beam + NoiseBlock	-.105*	.017	1113.001
			DNN	-.042	.017	1113.001
			Beam + DNN	-.161*	.017	1113.001
		Beam + DNN	No Processing	.172*	.017	1113.001
			Beam	.070*	.017	1113.001
			Beam + NoiseBlock	.056*	.017	1113.001
			DNN	.120*	.017	1113.001
			NoiseBlock	.161*	.017	1113.001
	90_degrees	No Processing	Beam	.044	.017	1113.001
			Beam + NoiseBlock	.026	.017	1113.001
			DNN	-.077*	.017	1113.001
			NoiseBlock	-.014	.017	1113.001
			Beam + DNN	-.089*	.017	1113.001
		Beam	No Processing	-.044	.017	1113.001
			Beam + NoiseBlock	-.018	.017	1113.001
			DNN	-.121*	.017	1113.001
			NoiseBlock	-.058*	.017	1113.001
			Beam + DNN	-.134*	.017	1113.001
		Beam + NoiseBlock	No Processing	-.026	.017	1113.001
			Beam	.018	.017	1113.001
			DNN	-.103*	.017	1113.001
			NoiseBlock	-.040	.017	1113.001
			Beam + DNN	-.115*	.017	1113.001

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	Sig.[c]	95% Confidence Interval for [c]... Lower Bound
		Beam + NoiseBlock	No Processing	<.001	.066
			Beam	1.000	-.036
			DNN	.003	.014
			NoiseBlock	<.001	.056
			Beam + DNN	.012	-.106
		DNN	No Processing	.031	.002
			Beam	.046	-.099
			Beam + NoiseBlock	.003	-.113
			NoiseBlock	.202	-.008
			Beam + DNN	<.001	-.169
		NoiseBlock	No Processing	1.000	-.039
			Beam	<.001	-.141
			Beam + NoiseBlock	<.001	-.155
			DNN	.202	-.091
			Beam + DNN	<.001	-.211
		Beam + DNN	No Processing	<.001	.122
			Beam	<.001	.020
			Beam + NoiseBlock	.012	.007
			DNN	<.001	.070
			NoiseBlock	<.001	.112
	90_degrees	No Processing	Beam	.132	-.005
			Beam + NoiseBlock	1.000	-.024
			DNN	<.001	-.126
			NoiseBlock	1.000	-.063
			Beam + DNN	<.001	-.139
		Beam	No Processing	.132	-.094
			Beam + NoiseBlock	1.000	-.068
			DNN	<.001	-.171
			NoiseBlock	.009	-.108
			Beam + DNN	<.001	-.183
		Beam + NoiseBlock	No Processing	1.000	-.076
			Beam	1.000	-.031
			DNN	<.001	-.152
			NoiseBlock	.267	-.089
			Beam + DNN	<.001	-.165

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	95% Confidence Interval for [c]... Upper Bound
		Beam + NoiseBlock	No Processing	.165
			Beam	.063
			DNN	.113
			NoiseBlock	.155
			Beam + DNN	-.007
		DNN	No Processing	.102
			Beam	.000
			Beam + NoiseBlock	-.014
			NoiseBlock	.091
			Beam + DNN	-.070
		NoiseBlock	No Processing	.060
			Beam	-.042
			Beam + NoiseBlock	-.056
			DNN	.008
			Beam + DNN	-.112
		Beam + DNN	No Processing	.221
			Beam	.119
			Beam + NoiseBlock	.106
			DNN	.169
			NoiseBlock	.211
	90_degrees	No Processing	Beam	.094
			Beam + NoiseBlock	.076
			DNN	-.027
			NoiseBlock	.036
			Beam + DNN	-.040
		Beam	No Processing	.005
			Beam + NoiseBlock	.031
			DNN	-.072
			NoiseBlock	-.009
			Beam + DNN	-.084
		Beam + NoiseBlock	No Processing	.024
			Beam	.068
			DNN	-.053
			NoiseBlock	.010
			Beam + DNN	-.066

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df
		DNN	No Processing	.077*	.017	1113.001
			Beam	.121*	.017	1113.001
			Beam + NoiseBlock	.103*	.017	1113.001
			NoiseBlock	.063*	.017	1113.001
			Beam + DNN	-.012	.017	1113.001
		NoiseBlock	No Processing	.014	.017	1113.001
			Beam	.058*	.017	1113.001
			Beam + NoiseBlock	.040	.017	1113.001
			DNN	-.063*	.017	1113.001
			Beam + DNN	-.075*	.017	1113.001
		Beam + DNN	No Processing	.089*	.017	1113.001
			Beam	.134*	.017	1113.001
			Beam + NoiseBlock	.115*	.017	1113.001
			DNN	.012	.017	1113.001
			NoiseBlock	.075*	.017	1113.001
5	0_degrees	No Processing	Beam	-.117*	.017	1113.001
			Beam + NoiseBlock	-.130*	.017	1113.001
			DNN	-.078*	.017	1113.001
			NoiseBlock	-.017	.017	1113.001
			Beam + DNN	-.186*	.017	1113.001
		Beam	No Processing	.117*	.017	1113.001
			Beam + NoiseBlock	-.013	.017	1113.001
			DNN	.039	.017	1113.001
			NoiseBlock	.100*	.017	1113.001
			Beam + DNN	-.069*	.017	1113.001
		Beam + NoiseBlock	No Processing	.130*	.017	1113.001
			Beam	.013	.017	1113.001
			DNN	.051*	.017	1113.001
			NoiseBlock	.113*	.017	1113.001
			Beam + DNN	-.056*	.017	1113.001
		DNN	No Processing	.078*	.017	1113.001
			Beam	-.039	.017	1113.001
			Beam + NoiseBlock	-.051*	.017	1113.001
			NoiseBlock	.062*	.017	1113.001
			Beam + DNN	-.108*	.017	1113.001

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	Sig.[c]	95% Confidence Interval for [c]... Lower Bound
		DNN	No Processing	<.001	.027
			Beam	<.001	.072
			Beam + NoiseBlock	<.001	.053
			NoiseBlock	.003	.013
			Beam + DNN	1.000	-.062
		NoiseBlock	No Processing	1.000	-.036
			Beam	.009	.009
			Beam + NoiseBlock	.267	-.010
			DNN	.003	-.113
			Beam + DNN	<.001	-.125
		Beam + DNN	No Processing	<.001	.040
			Beam	<.001	.084
			Beam + NoiseBlock	<.001	.066
			DNN	1.000	-.037
			NoiseBlock	<.001	.026
5	0_degrees	No Processing	Beam	<.001	-.166
			Beam + NoiseBlock	<.001	-.179
			DNN	<.001	-.128
			NoiseBlock	1.000	-.066
			Beam + DNN	<.001	-.236
		Beam	No Processing	<.001	.067
			Beam + NoiseBlock	1.000	-.062
			DNN	.333	-.011
			NoiseBlock	<.001	.051
			Beam + DNN	<.001	-.119
		Beam + NoiseBlock	No Processing	<.001	.080
			Beam	1.000	-.037
			DNN	.035	.002
			NoiseBlock	<.001	.064
			Beam + DNN	.013	-.106
		DNN	No Processing	<.001	.029
			Beam	.333	-.088
			Beam + NoiseBlock	.035	-.101
			NoiseBlock	.004	.012
			Beam + DNN	<.001	-.157

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	95% Confidence Interval for [c]... Upper Bound
		DNN	No Processing	.126
			Beam	.171
			Beam + NoiseBlock	.152
			NoiseBlock	.113
			Beam + DNN	.037
		NoiseBlock	No Processing	.063
			Beam	.108
			Beam + NoiseBlock	.089
			DNN	-.013
			Beam + DNN	-.026
		Beam + DNN	No Processing	.139
			Beam	.183
			Beam + NoiseBlock	.165
			DNN	.062
			NoiseBlock	.125
5	0_degrees	No Processing	Beam	-.067
			Beam + NoiseBlock	-.080
			DNN	-.029
			NoiseBlock	.033
			Beam + DNN	-.136
		Beam	No Processing	.166
			Beam + NoiseBlock	.037
			DNN	.088
			NoiseBlock	.150
			Beam + DNN	-.020
		Beam + NoiseBlock	No Processing	.179
			Beam	.062
			DNN	.101
			NoiseBlock	.163
			Beam + DNN	-.007
		DNN	No Processing	.128
			Beam	.011
			Beam + NoiseBlock	-.002
			NoiseBlock	.111
			Beam + DNN	-.058

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df
		NoiseBlock	No Processing	.017	.017	1113.001
			Beam	-.100*	.017	1113.001
			Beam + NoiseBlock	-.113*	.017	1113.001
			DNN	-.062*	.017	1113.001
			Beam + DNN	-.169*	.017	1113.001
		Beam + DNN	No Processing	.186*	.017	1113.001
			Beam	.069*	.017	1113.001
			Beam + NoiseBlock	.056*	.017	1113.001
			DNN	.108*	.017	1113.001
			NoiseBlock	.169*	.017	1113.001
	90_degrees	No Processing	Beam	.073*	.017	1113.001
			Beam + NoiseBlock	.049	.017	1113.001
			DNN	-.071*	.017	1113.001
			NoiseBlock	-.013	.017	1113.001
			Beam + DNN	-.079*	.017	1113.001
		Beam	No Processing	-.073*	.017	1113.001
			Beam + NoiseBlock	-.023	.017	1113.001
			DNN	-.144*	.017	1113.001
			NoiseBlock	-.085*	.017	1113.001
			Beam + DNN	-.152*	.017	1113.001
		Beam + NoiseBlock	No Processing	-.049	.017	1113.001
			Beam	.023	.017	1113.001
			DNN	-.121*	.017	1113.001
			NoiseBlock	-.062*	.017	1113.001
			Beam + DNN	-.129*	.017	1113.001
		DNN	No Processing	.071*	.017	1113.001
			Beam	.144*	.017	1113.001
			Beam + NoiseBlock	.121*	.017	1113.001
			NoiseBlock	.059*	.017	1113.001
			Beam + DNN	-.008	.017	1113.001
		NoiseBlock	No Processing	.013	.017	1113.001
			Beam	.085*	.017	1113.001
			Beam + NoiseBlock	.062*	.017	1113.001
			DNN	-.059*	.017	1113.001
			Beam + DNN	-.067*	.017	1113.001

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	Sig.[c]	95% Confidence Interval for [c]... Lower Bound
		NoiseBlock	No Processing	1.000	-.033
			Beam	<.001	-.150
			Beam + NoiseBlock	<.001	-.163
			DNN	.004	-.111
			Beam + DNN	<.001	-.219
		Beam + DNN	No Processing	<.001	.136
			Beam	<.001	.020
			Beam + NoiseBlock	.013	.007
			DNN	<.001	.058
			NoiseBlock	<.001	.120
	90_degrees	No Processing	Beam	<.001	.023
			Beam + NoiseBlock	.051	-9.089E-5
			DNN	<.001	-.121
			NoiseBlock	1.000	-.062
			Beam + DNN	<.001	-.129
		Beam	No Processing	<.001	-.122
			Beam + NoiseBlock	1.000	-.073
			DNN	<.001	-.194
			NoiseBlock	<.001	-.135
			Beam + DNN	<.001	-.202
		Beam + NoiseBlock	No Processing	.051	-.099
			Beam	1.000	-.026
			DNN	<.001	-.170
			NoiseBlock	.003	-.112
			Beam + DNN	<.001	-.178
		DNN	No Processing	<.001	.022
			Beam	<.001	.094
			Beam + NoiseBlock	<.001	.071
			NoiseBlock	.008	.009
			Beam + DNN	1.000	-.058
		NoiseBlock	No Processing	1.000	-.037
			Beam	<.001	.036
			Beam + NoiseBlock	.003	.013
			DNN	.008	-.108
			Beam + DNN	.001	-.116

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	95% Confidence Interval for [c]... Upper Bound
		NoiseBlock	No Processing	.066
			Beam	-.051
			Beam + NoiseBlock	-.064
			DNN	-.012
			Beam + DNN	-.120
		Beam + DNN	No Processing	.236
			Beam	.119
			Beam + NoiseBlock	.106
			DNN	.157
			NoiseBlock	.219
	90_degrees	No Processing	Beam	.122
			Beam + NoiseBlock	.099
			DNN	-.022
			NoiseBlock	.037
			Beam + DNN	-.030
		Beam	No Processing	-.023
			Beam + NoiseBlock	.026
			DNN	-.094
			NoiseBlock	-.036
			Beam + DNN	-.102
		Beam + NoiseBlock	No Processing	9.089E-5
			Beam	.073
			DNN	-.071
			NoiseBlock	-.013
			Beam + DNN	-.079
		DNN	No Processing	.121
			Beam	.194
			Beam + NoiseBlock	.170
			NoiseBlock	.108
			Beam + DNN	.042
		NoiseBlock	No Processing	.062
			Beam	.135
			Beam + NoiseBlock	.112
			DNN	-.009
			Beam + DNN	-.017

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df
		Beam + DNN	No Processing	.079*	.017	1113.001
			Beam	.152*	.017	1113.001
			Beam + NoiseBlock	.129*	.017	1113.001
			DNN	.008	.017	1113.001
			NoiseBlock	.067*	.017	1113.001

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	Sig.[c]	95% Confidence Interval for [c]... Lower Bound
		Beam + DNN	No Processing	<.001	.030
			Beam	<.001	.102
			Beam + NoiseBlock	<.001	.079
			DNN	1.000	-.042
			NoiseBlock	.001	.017

Pairwise Comparisons[a]

SNR	Azimuth	(I) Program	(J) Program	95% Confidence Interval for [c]... Upper Bound
		Beam + DNN	No Processing	.129
			Beam	.202
			Beam + NoiseBlock	.178
			DNN	.058
			NoiseBlock	.116

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

a. Dependent Variable: HASQI.

c. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests[a]

SNR	Azimuth	Numerator df	Denominator df	F	Sig.
-5	0_degrees	5	1113.001	11.944	<.001
	90_degrees	5	1113.001	9.227	<.001
0	0_degrees	5	1113.001	31.122	<.001
	90_degrees	5	1113.001	20.777	<.001
5	0_degrees	5	1113.001	35.457	<.001
	90_degrees	5	1113.001	26.806	<.001

Each F tests the simple effects of Program within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Dependent Variable: HASQI.