\\USER\Feinberglab\Alex\24ch fMRI\localizer_50V_newcoil

Voxel size: 1.2×1.1×3.0 mm Rel. SNR: 1.00

PAT: Off

TA: 0:27

SIEMENS: gre

174. 0.27	VOXC13126. 1.22	TCI. ONT. 1.00	OILMENO. GIC
Properties		Phase resolution Phase partial Fourier	90 % 6/8
Prio Recon	Off	Interpolation	On
Before measurement			
After measurement		PAT mode	None
Load to viewer	On	Image Filter	Off
Inline movie	Off	Distortion Corr.	Off
Auto store images	On	Prescan Normalize	Off
Load to stamp segments	Off	Normalize	Off
Load images to graphic	Off	B1 filter	Off
segments		Raw filter	Off
Auto open inline display	Off	Elliptical filter	Off
Start measurement without	On	'	Oli
further preparation		Geometry	
Wait for user to start	Off	Multi-slice mode	Sequential
Start measurements	single	Series	Interleaved
Routine		Cotypotion mode	Ctondond
Slice group 1		Saturation mode	Standard
Slices	E	Special sat.	None
Dist. factor	5 20 %		
		Table position	Н
Position	Isocenter	Table position	0 mm
Orientation	Sagittal	Inline Composing	Off
Phase enc. dir.	A >> P	Tim CT mode	Off
Rotation	0.00 deg	Tilli CT mode	Oli
Slice group 2	_	System	
Slices	5	LV1	On
Dist. factor	20 %	LV2	On
Position	L0.0 P77.6 H18.2	LV3	On
Orientation	Coronal	LV4	On
Phase enc. dir.	R >> L	LV5	On
Rotation	0.00 deg	LV6	On
Slice group 3		LV7	On
Slices	5	LV8	On
Dist. factor	20 %	LV9	On
Position	L0.0 P77.6 H18.2	L10	On
Orientation	Transversal	L11	On
Phase enc. dir.	A >> P	L12	On
Rotation	0.00 deg	L13	On
Phase oversampling	0 %	L14	On
FoV read	280 mm	L15	On
FoV phase	100.0 %	L16	On
Slice thickness	3.0 mm	L17	On
TR	10.0 ms	L18	On
TE	3.00 ms	L19	On
Averages	1		_
Concatenations	15	L20 L21	On On
Filter	None	L21 L22	On On
Coil elements	L10-24;LV1-9	L22 L23	_
ı	- , -	L23	On On
Contrast		L24	On
TD	0 ms	Positioning mode	FIX
MTC	Off	MSMA	S - C - T
Magn. preparation	None	Sagittal	R >> L
Flip angle	10 deg	Coronal	A >> P
Fat suppr.	None	Transversal	F >> H
Water suppr.	None	Save uncombined	On
SWI	Off	Coil Combine Mode	Sum of Squares
Averaging mode	Short term	AutoAlign	
Averaging mode		Auto Coil Select	Off
Reconstruction	Magnitude		
Measurements Multiple period	Each massurament	Shim mode	Tune up
Multiple series	Each measurement	Adjust with body coil	Off
Resolution		Confirm freq. adjustment	Off
Base resolution	256	Assume Silicone	Off
1		! Ref. amplitude 1H	50.000 V
		1/176	

Adjustment Tolerance	Auto
Adjust volume	
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm
Physio	
1st Signal/Mode	None
Segments	1
Tagging	None
Dark blood	Off
	0"
Resp. control	Off
Inline	
Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1
Sequence	
Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	320 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Whisper
Excitation	Slice-sel.
DE anailina	On

On

RF spoiling

\\U	SER\Feinberglab\Alex\24ch fl\	//RI\b1map_100V_TR1000)_RL
TA: 1:09	Voxel size: 3.9×3.9×5.0 mm	·	b1map_658
Properties		L11	On
Prio Recon	Off	L12	On
Before measurement	Oil	L13	On
After measurement		L14	On
Load to viewer	On	L15	On
Inline movie	Off	L16	On
Auto store images	On	L17	On
Load to stamp segments	Off	L18	On
Load images to graphic	Off	L19	On
segments		L20	On
Auto open inline display	Off	L21	On
Start measurement without	On	L22	On
further preparation		L23	On
Wait for user to start	Off	L24	On
Start measurements	single	Positioning mode	FIX
Douting	•	MSMA	S - C - T
Routine		Sagittal	R >> L
Slice group 1	40	Coronal	A >> P
Slices	12	Transversal	F >> H
Dist. factor	100 %	Save uncombined	Off
Position	R0.7 P37.8 F5.4	Coil Combine Mode	Adaptive Combine
Orientation Phase enc. dir.	Transversal A >> P	AutoAlign	
Rotation	0.00 deg	Auto Coil Select	Default
FoV read	250 mm	Shim mode	Tune up
FoV read FoV phase	100.0 %	Adjust with body coil	Off
Slice thickness	5 mm	Confirm freq. adjustment	Off
TR	1000 ms	Assume Silicone	Off
TE 1	14 ms	! Ref. amplitude 1H	100.000 V
TE 2	14 ms	Adjustment Tolerance	Auto
Averages	1	Adjust volume	Auto
Filter	None	Position	Isocenter
Coil elements	L10-24;LV1-9	Orientation	Transversal
	210 21,211 0	Rotation	0.00 deg
Contrast		R >> L	350 mm
Flip angle 1	90 deg	A >> P	263 mm
Flip angle 2	120 deg	F >> H	350 mm
Flip angle 3	60 deg	ı	
Flip angle 4	135 deg	Composing	
Flip angle 5	45 deg	Sequence	
Measurements	1	Contrasts	2
I		Bandwidth	260.416667 Hz/Px
Resolution			
Base resolution	64	T1 Compensation	Mean T1
Phase resolution	100 %	Mean T1	1000.0 ms
Raw filter	Off	Angles	1 Linear
		Amplitude Weighting Scale Bar	Linear Enabled
Geometry	Interleaved	Raw Data	Enabled Disabled
Series	ınteneaved	Naw Dala	Disabled
Table position	 П		
Table position	H 0 mm		
Table position Inline Composing	0 mm Off		
	OII		
System			
LV1	On		
LV2	On		
LV3	On		
LV4	On		
LV5	On		
LV6	On		
LV7	On		
LV8	On		
LV9	On		
L10	On	176	
	3/	170	

\\USER\Feinberglab\Alex\24ch fMRI\gFactorMap_100V

TA: 3:13	Voxel size: 0.5×0.5×5.0 mm	Rel. SNR: 1.00 USER: Noise	MeasSensitivityMap
B		Table position	Н
Properties		Table position	0 mm
Prio Recon	Off	Inline Composing	Off
Before measurement			
After measurement		System	
Load to viewer	On	LV1	On
Inline movie	Off	LV2	On
Auto store images	On	LV3	On
Load to stamp segments	Off	LV4	On
Load images to graphic	Off	LV5	On
segments		LV6	On
Auto open inline display	Off	LV7	On
Start measurement without	ut On	LV8	On
further preparation		LV9	On
Wait for user to start	Off	L10	On
Start measurements	single	L11	On
Routine		L12	On
		L13	On
Slice group 1	12	L14	On
Slices	12	L15	On
Dist. factor	100 %	L16	On
Position	R0.7 P37.8 F5.4	L17	On
Orientation	Transversal	L18	On
Phase enc. dir.	A >> P	L19	On
Rotation	0.00 deg	L20	On
Phase oversampling	0 %	L21	On
FoV read	250 mm	L22	On
FoV phase	100.0 %	L23	On
Slice thickness	5.0 mm	L24	On
TR	30 ms		
TE	6.0 ms	Positioning mode	FIX
Averages	1	MSMA	S - C - T
Concatenations	12	Sagittal	R >> L
Filter	None	Coronal	A >> P
Coil elements	L10-24;LV1-9	Transversal	F >> H
Contrast		Save uncombined	Off
TD	0 ms	Coil Combine Mode	Adaptive Combine
MTC	Off	AutoAlign	
Flip angle	10 deg	Auto Coil Select	Default
Fat suppr.	None	Shim mode	Standard
Water suppr.	None	Adjust with body coil	Off
water suppr.	110116	Confirm freq. adjustment	Off
Averaging mode	Short term	Assume Silicone	Off
Reconstruction	Magnitude	! Ref. amplitude 1H	100.000 V
Measurements	1	Adjustment Tolerance	Auto
Multiple series	Off	Adjust volume	Auto
Resolution		! Position	Isocenter
Base resolution	496	! Orientation	Transversal
Phase resolution	100 %	! Rotation	0.00 deg
Phase partial Fourier	Off	! R >> L	350 mm
Interpolation	Off	! A >> P	263 mm
	<u> </u>	!F>> H	350 mm
Image Filter	Off	l	
Distortion Corr.	Off	Physio	
Prescan Normalize	Off	1st Signal/Mode	None
Normalize	Off	Inline	
B1 filter	Off	Subtract	Off
Raw filter	Off		Off
Elliptical filter	Off	Std-Dev-Sag Std-Dev-Cor	Off
1		Std-Dev-Cor Std-Dev-Tra	Off
Geometry	Cognestial	Std-Dev-Tra Std-Dev-Time	Off
Multi-slice mode	Sequential	MIP-Sag	Off
Series	Ascending	MIP-Sag MIP-Cor	Off
Special sat.	None	MIP-Tra	Off
		WIII = 11G	Jii

1	MIP-Time	Off
	Save original images	On
I	Sequence	
Ī	Introduction	Off
	Dimension	2D
	Contrasts	1
	Bandwidth	200 Hz/Px
	Gradient mode	Fast
	RF spoiling	On
	ICE program	CoilArrayUtil
	number of noise lines	384 lines
	Optimal SNR	On
	GFactor	On
	Condition number	Off
	Rx coil diode switching	On
	coil channel reordering	Off
	TX/RX Nucleus	1H
	TX/RX delta frequency	0 Hz
	TX Nucleus	None
	TX delta frequency	0 Hz
- 1	· · · · · · · · · · · · · · · · · · ·	

\\USER\Feinberglab\Alex\24ch fMRI\AV_ep2d_bold_sd1ipat2mb2_pt75mm_tSNR_shimWholeVol TA: 1:47 PAT: 2 Voxel size: 0.7×0.7×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	_ Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	•	
Inline movie	Off	System	
Auto store images	On	L1	On
Load to stamp segments	Off	L2	On
Load images to graphic	Off	L3	On
segments		L4	On
Auto open inline display	Off	L5	On
Start measurement without	On	L6	On
further preparation		L7	On
Wait for user to start	Off	L8	On
Start measurements	single	Positioning mode	FIX
ı	3 -	MSMA	S - C - T
Routine		- Sagittal	R >> L
Slice group 1		Coronal	A >> P
Slices	60	Transversal	F >> H
Dist. factor	0 %	Coil Combine Mode	Sum of Squares
Position	R6.0 A6.3 F32.8	AutoAlign	
Orientation	Transversal	Auto Coil Select	Default
Phase enc. dir.	A >> P		
Rotation	0.00 deg	Shim mode	Standard
Phase oversampling	0 %	Adjust with body coil	Off
FoV read	172 mm	Confirm freq. adjustment	On
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	0.75 mm	! Ref. amplitude 1H	120.000 V
TR	3000 ms	Adjustment Tolerance	Auto
TE	24.4 ms	Adjust volume	
Multi-band accel. factor	2	Position	R6.0 A6.3 F32.8
Filter	None	Orientation	Transversal
Coil elements	L1-8	Rotation	0.00 deg
Contrast		R >> L	172 mm
MTC	Off	– A >> P	172 mm
Magn. preparation	None	F >> H	45 mm
Flip angle	80 deg	Physio	
Fat suppr.	Fat sat.	1st Signal/Mode	None
Averaging mode	Long term	BOLD	
Reconstruction	Magnitude	GLM Statistics	Off
Measurements	20	Dynamic t-maps	Off
Delay in TR	0 ms	Starting ignore meas	0
Multiple series	Off	Ignore after transition	0
Resolution		Model transition states	On
Base resolution	230	Temp. highpass filter Threehold	On 4.00
Phase resolution	100 %	Threshold Paradigm size	4.00 20
Phase partial Fourier	5/8	<u> </u>	Baseline
Interpolation	Off	Meas[1]	
PAT mode	GRAPPA	Meas[2]	Baseline Baseline
Accel, factor PE	2	Meas[3]	
Ref. lines PE	2 56	Meas[4] Meas[5]	Baseline Baseline
Reference scan mode	GRE	Meas[6] Meas[7]	Baseline Baseline
Distortion Corr.	Off	Meas[7] Meas[8]	Baseline Baseline
Prescan Normalize	Off	Meas[9]	Baseline
Raw filter	On	Meas[9]	Baseline
Elliptical filter	Off	Meas[11]	Active
Hamming	Off	Meas[12]	Active
Geometry		Meas[12]	Active
Geometry Multi alice mode	Interlegued	- Meas[14]	Active
Multi-slice mode Series	Interleaved Interleaved	Meas[15]	Active
Jelies	mieneaveu	Meas[16]	Active
•		6/176	. 10070

Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction Bandwidth	Off 1144 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1.05 ms
SIR accel. factor	1
EPI factor	230
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5820 us
Slice multiplier Multi-band PE shift	1 0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data Readout slice trace	Off Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.20
GRE iPAT ref. FA	12.0 deg Never
Send B1 shim trigger Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

TA: 9:52 PAT: 2	Voxel size: 1.5×1.5×2.0 mm	, ,	J I_fq_mb_gre_3D_seg
Properties		Geometry	
Prio Recon	Off	Multi-slice mode	Sequential
Before measurement		Series	Ascending
After measurement		Special sat.	None
Load to viewer	On	Special Sat.	None
Inline movie	Off	Table position	Н
Auto store images	On	Table position	0 mm
Load to stamp segments	Off	Inline Composing	Off
Load images to graphic	Off	System	
segments	2"	T1	On
Auto open inline display	Off	M2	On
Start measurement without	On	B4	On
further preparation Wait for user to start	Off	M3	On
Start measurements	single	V32	Off
	Single	Desitioning models	DEE
Routine		Positioning mode	REF
Slab group 1		MSMA Societal	S - C - T R >> L
Slabs	2	Sagittal Coronal	A >> P
Dist. factor	100 %	Transversal	F >> H
Position	L0.0 A29.7 F58.7	Coil Combine Mode	Sum of Squares
Orientation	Transversal	AutoAlign	
Phase enc. dir.	A >> P	Auto Coil Select	Default
Rotation	0.00 deg 0 %		
Phase oversampling	0.0 %	Shim mode	Tune up
Slice oversampling Slices per slab	12	Adjust with body coil	Off
FoV read	192 mm	Confirm freq. adjustment	Off
FoV phase	100.0 %	Assume Silicone	Off
Slice thickness	2.00 mm	? Ref. amplitude 1H	0.000 V
TR	37.65 ms	Adjustment Tolerance Adjust volume	Auto
TE	5.91 ms	Position	Isocenter
Averages	1	Orientation	Transversal
Concatenations	2	Rotation	0.00 deg
Filter	None	R >> L	350 mm
Coil elements	B4;M2,3;T1	A >> P	263 mm
Contract		F >> H	350 mm
Contrast Flip angle	15 deg	Dharia	
i lip aligie	13 deg	Physio 1st Signal/Mode	Dulas /Trigger
Averaging mode	Short term	Average cycle	Pulse/Trigger No Signal ms
Reconstruction	Magnitude	Captured cycle	-not set-
Measurements	1	Acquisition window	770 ms
Multiple series	Each measurement	Trigger pulse	1
Resolution		Trigger delay	0 ms
Base resolution	128	Segments	1
Phase resolution	100 %	Phases	20
Slice resolution	100 %	Angia	
Phase partial Fourier	Off	Angio Flow mode	Cingle vel
Interpolation	Off	Encodings	Single vel. 3
PAT mode	GRAPPA	Velocity enc.	90 cm/s
Accel. factor PE	2	Direction 1	Through plane
Ref. lines PE	24	Direction 2	A >> P
Accel. factor 3D	1	Direction 3	R >> L
Ref. lines 3D	12	Rephased images	On
Reference scan mode	Separate	Magnitude images	On
		Magnitude sum	Off
Image Filter	Off	Phase images	On
Distortion Corr.	Off		
Prescan Normalize Normalize	Off Off	Subtract	Off
B1 filter	Off	Std-Dev-Sag Std-Dev-Cor	Off Off
Raw filter	Off	Std-Dev-Cor Std-Dev-Tra	Off
Elliptical filter	Off	Std-Dev-Time	Off
		Ota Dov-Time	5 11

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Sequence	
Introduction Dimension Elliptical scanning Asymmetric echo Contrasts Bandwidth Flow comp.	On 3D Off Off 1 260 Hz/Px No
RF pulse type	Normal
Gradient mode	Fast
RF spoiling	On
MB Number	2
FOV Shift	2

 $\verb|\USER\Feinberg|| ab\Alex\flow\fl_fq_mb2f2_gre_3D_seg2||$

TA: 5:27 PAT: 2	Voxel size: 1.5×1.5×2.0 mm	Rel. SNR: 1.00 USER: f	I_fq_mb_gre_3D_seg
Properties		Geometry	
Prio Recon	Off	Multi-slice mode	Sequential
Before measurement		Series	Ascending
After measurement		Chariel ant	
Load to viewer	On	Special sat.	None
Inline movie	Off	Table position	Н
Auto store images	On O"	Table position	0 mm
Load to stamp segments	Off Off	Inline Composing	Off
Load images to graphic segments	Oli	System	
Auto open inline display	Off	T1	On
Start measurement without	On	M2	On
further preparation		B4	On
Wait for user to start	Off	M3	On Off
Start measurements	single	V32	OII
Routine		Positioning mode	REF
Slab group 1		- MSMA	S - C - T
Slabs	2	Sagittal	R >> L A >> P
Dist. factor	100 %	Coronal Transversal	A >> P F >> H
Position	L0.0 A29.7 F58.7	Coil Combine Mode	Sum of Squares
Orientation	Transversal A >> P	AutoAlign	
Phase enc. dir. Rotation	0.00 deg	Auto Coil Select	Default
Phase oversampling	0.00 deg 0 %	Chim made	Tung un
Slice oversampling	0.0 %	Shim mode Adjust with body coil	Tune up Off
Slices per slab	12	Confirm freq. adjustment	Off
FoV read	192 mm	Assume Silicone	Off
FoV phase	100.0 %	? Ref. amplitude 1H	0.000 V
Slice thickness	2.00 mm	Adjustment Tolerance	Auto
TR TE	75.15 ms 5.91 ms	Adjust volume	
Averages	1	Position	Isocenter
Concatenations	2	Orientation Rotation	Transversal 0.00 deg
Filter	None	R >> L	350 mm
Coil elements	B4;M2,3;T1	A >> P	263 mm
Contrast		F >> H	350 mm
Flip angle	15 deg	_ ' Physio	
		1st Signal/Mode	Pulse/Trigger
Averaging mode Reconstruction	Short term Magnitude	Average cycle	No Signal ms
Measurements	1	Captured cycle	-not set-
Multiple series	Each measurement	Acquisition window	849 ms
Resolution		Trigger pulse	1
Base resolution	128	_ Trigger delay Segments	0 ms 2
Phase resolution	100 %	Phases	11
Slice resolution	100 %	I	
Phase partial Fourier	Off	Angio Flow mode	Single vol
Interpolation	Off	Encodings	Single vel. 3
PAT mode	GRAPPA	Velocity enc.	90 cm/s
Accel. factor PE	2	Direction 1	Through plane
Ref. lines PE	24	Direction 2	A >> P
Accel. factor 3D	1	Direction 3	R >> L
Ref. lines 3D	12	Rephased images	On
Reference scan mode	Separate	Magnitude images	On O#
Image Filter	Off	Magnitude sum Phase images	Off On
Distortion Corr.	Off		
Prescan Normalize	Off	Subtract	Off
Normalize B1 filter	Off	Std-Dev-Sag	Off Off
Raw filter	Off Off	Std-Dev-Cor Std-Dev-Tra	Off Off
Elliptical filter	Off	Std-Dev-Tra Std-Dev-Time	Off
1		1 0.0 204 11110	J.,

MIP-Sag MIP-Cor MIP-Tra MIP-Time Save original images	Off Off Off On
Sequence	
Introduction Dimension Elliptical scanning Asymmetric echo Contrasts Bandwidth Flow comp.	On 3D Off Off 1 260 Hz/Px No
RF pulse type Gradient mode RF spoiling	Normal Fast On
MB Number FOV Shift	2 2

	\\USER\Feinberglab\Alex\VASO\BOLD_local_1p5				
TA: 7:24	PAT: Off	Voxel size: 1.5×1.5×1.5 mm	Rel. SNR: 1.00	USER: AV_ep2d_bold_sd_20140727	
			Inline Compo	sing Off	

Properties		Inline Composing	Off
Prio Recon	Off	System	
Before measurement	Oli	T1	On
After measurement		M2	On
Load to viewer	On	B4	On
Inline movie	Off	M3	On
Auto store images	On	V32	Off
Load to stamp segments	Off	V 32	OII
Load images to graphic	Off	Positioning mode	FIX
segments	Oli	MSMA	S - C - T
Auto open inline display	Off	Sagittal	R >> L
Start measurement without	On	Coronal	A >> P
	OII	Transversal	F >> H
further preparation Wait for user to start	Off	Coil Combine Mode	Sum of Squares
Start measurements		AutoAlign	
Start measurements	single	Auto Coil Select	Default
Routine		Shim mode	Standard
Slice group 1		Adjust with body coil	Off
Slices	30		On
Dist. factor	0 %	Confirm freq. adjustment Assume Silicone	Off
Position	L0.1 A20.2 H6.1	! Ref. amplitude 1H	245.000 V
Orientation	T > C-30.6	Adjustment Tolerance	245.000 V Auto
Phase enc. dir.	A >> P		Auto
Rotation	0.00 deg	Adjust volume Position	101 120 2 46 1
Phase oversampling	0 %	Orientation	L0.1 A20.2 H6.1 T > C-30.6
FoV read	210 mm		
FoV phase	100.0 %	Rotation	0.00 deg
Slice thickness	1.50 mm	R >> L	210 mm
TR	4000 ms	A >> P	210 mm
TE	19.0 ms	F >> H	45 mm
Multi-band accel. factor	1	Physio	
Filter	None	1st Signal/Mode	None
Coil elements	B4;M2,3;T1	1	
Contrast		BOLD GLM Statistics	On
		I (al M Statistics	
	Off		
MTC	Off	Dynamic t-maps	Off
MTC Magn. preparation	None	Dynamic t-maps Starting ignore meas	Off 0
MTC Magn. preparation Flip angle	None 90 deg	Dynamic t-maps Starting ignore meas Ignore after transition	Off 0 0
MTC Magn. preparation	None	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states	Off 0 0 On
MTC Magn. preparation Flip angle	None 90 deg	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter	Off 0 0 On On
MTC Magn. preparation Flip angle Fat suppr.	None 90 deg Fat sat.	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold	Off 0 0 On On 4.00
MTC Magn. preparation Flip angle Fat suppr. Averaging mode	None 90 deg Fat sat. Long term	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size	Off 0 0 On On 4.00 20
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction	None 90 deg Fat sat. Long term Magnitude	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1]	Off 0 0 On On 4.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements	None 90 deg Fat sat. Long term Magnitude 110	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2]	Off 0 0 On On 4.00 20 Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series	None 90 deg Fat sat. Long term Magnitude 110 0 ms	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3]	Off 0 0 On On 4.00 20 Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4]	Off 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	Off 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6]	Off 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	Off 0 0 0 On On 4.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	Off 0 0 0 On On 4.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8] Meas[9]	Off 0 0 0 On On 4.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8] Meas[9] Meas[10]	Off 0 0 0 On On 4.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode Distortion Corr.	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	Off 0 0 0 On On 4.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None Off Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Off 0 0 0 On On 4.00 20 Baseline Active Active
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None Off Off On	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12]	Off 0 0 0 On On 4.00 20 Baseline Active Active Active
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[13]	Off 0 0 0 On On 4.00 20 Baseline Bateline Baseline Bateline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None Off Off On	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14]	Off 0 0 0 On On 4.00 20 Baseline Active Active Active Active Active
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[15]	Off 0 0 0 On On A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17]	Off 0 0 0 On On A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None Off Off On Off Off Off Interleaved	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[17]	Off 0 0 0 On On A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode Series	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None Off Off On Off Off Off Off Interleaved Interleaved	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[14] Meas[15] Meas[15] Meas[16] Meas[17] Meas[17] Meas[18] Meas[17]	Off 0 0 0 On On A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None Off Off On Off Off Off Interleaved	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[17] Meas[18] Meas[19] Meas[19]	Off 0 0 0 On On A.00 20 Baseline Active
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode Series Special sat.	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None Off Off On Off Off Off On Off Off Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[17] Meas[18] Meas[19] Meas[19] Meas[20] Motion correction	Off 0 0 0 On On 4.00 20 Baseline Active
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode Series	None 90 deg Fat sat. Long term Magnitude 110 0 ms Off 140 100 % 5/8 Off None Off Off On Off Off Off Off Interleaved Interleaved	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[17] Meas[18] Meas[19] Meas[19]	Off 0 0 0 On On A.00 20 Baseline Active

Sequence

	Ocquerioc	
	Introduction	Off
	Bandwidth	1786 Hz/Px
	Flow comp.	No
	Free echo spacing	Off
	Echo spacing	0.66 ms
	SIR accel. factor	1
	EPI factor	140
	Gradient mode	Normal
	RF spoiling	Off
	Evoite pulse duration	F920 up
	Excite pulse duration Slice multiplier	5820 us 1
	Fake MB factor for SB	1
	No. of interleaved TEs	0
	RF pulse shape	1
	EPI noise scans	0
	EPI full reference scan	0
	SENSE1 coil combine	Off
	Log physiology to file	Off
	Invert RO/PE polarity	Off
	Save reduced raw data	Off
	Readout slice trace	Off
	Disable ramp sampling	Off
	PF omits higher k-space	Off
	FFT scale factor	1.00
	Send B1 shim trigger	Never
	Triggering scheme	Standard
	Starting ignore meas	0
	Paradigm size	2
l	Multiplier	1
l	Step [1]	1
	Step [2]	0

TA: 7:24 PAT: 0	Off Voxel size: 1.5×1.5	×1.5 mm Rel. SNR: 1.00 USE	ER: ep2d_fid_VASO
Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	T1	On
Auto store images	On	M2	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	M3	On
segments		V32	Off
Auto open inline display	Off		
Start measurement without	On	Positioning mode	FIX
further preparation	0"	MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Save uncombined	Off
Slices	1	Coil Combine Mode	Sum of Squares
Dist. factor	50 %	AutoAlign	
Position	L0.1 A16.8 H6.7	Auto Coil Select	Default
Orientation	T > C-30.6	Shim mode	Standard
Phase enc. dir.	A >> P	Adjust with body coil	Off
Rotation	0.00 deg	Confirm freq. adjustment	Off
Phase oversampling	0 %	Assume Silicone	Off
FoV read	210 mm	! Ref. amplitude 1H	245.000 V
FoV phase	100.0 %	Adjustment Tolerance	Auto
Slice thickness	1.5 mm	Adjust volume	
TR	4000.0 ms	! Position	L0.1 A20.2 H6.1
TE 1	19 ms	! Orientation	T > C-30.6
TE 2	19 ms	! Rotation	0.00 deg
Averages	1	! R >> L	210 mm
Concatenations	1	! A >> P	210 mm
Filter	None	!F>> H	45 mm
Coil elements	B4;M2,3;T1	DI :	
Contrast		Physio	Name
MTC	Off	1st Signal/Mode	None
Magn. preparation	Non-sel. IR	Perf	
TI	1450 ms	GBP	Off
Flip angle	90 deg	PBP	Off
Fat suppr.	Fat sat.	TTP	Off
ι αι συρρι. ·····		Original images	On
Averaging mode	Long term	Saguence	
Reconstruction	Magnitude	Sequence Introduction	Off
Measurements	110	Contrasts	
Delay in TR	0 ms	Bandwidth	2 1786 Hz/Px
Multiple series	Off	Free echo spacing	Off
Resolution		Echo spacing	0.66 ms
Base resolution	140		0.00 1113
Phase resolution	100 %	EPI factor	140
Phase partial Fourier	5/8	RF pulse type	Fast
Interpolation	Off	Gradient mode	Normal
PAT mode	None	·	
Distortion Corr.	Off		
Prescan Normalize	Off		
Raw filter	Off		
Elliptical filter	Off		
Hamming	Off		
Geometry			
Multi-slice mode	Interleaved		
Corios	Interlegyed		

Interleaved

Series

\\USER\F	einberglab\Alex\VASO\	ep2d_fid_VASO-1.5x1.5x1.5_13	50_noIPAT	
TA: 7:24 PAT: 0	Off Voxel size: 1.5×1.5	×1.5 mm Rel. SNR: 1.00 USE	ER: ep2d_fid_VASO	
Properties		Special sat.	None	
Prio Recon	Off	Table position	H	
Before measurement	.	Table position	0 mm	
After measurement		Inline Composing	Off	
Load to viewer	On			
Inline movie	Off	System		
Auto store images	On	T1	On	
Load to stamp segments	Off	M2	On	
Load images to graphic	Off	B4	On	
segments		M3	On	
Auto open inline display	Off	V32	Off	
Start measurement without	On	Positioning mode	FIX	
further preparation		MSMA	S-C-T	
Wait for user to start	Off	Sagittal	R >> L	
Start measurements	single	Coronal	A >> P	
ı	g	Transversal	F >> H	
Routine		Save uncombined	Off	
Slice group 1		Coil Combine Mode	Sum of Squares	
Slices	1	AutoAlign		
Dist. factor	50 %	Auto Coil Select	Default	
Position	L0.1 A16.8 H6.7	······		
Orientation	T > C-30.6	Shim mode	Standard	
Phase enc. dir.	A >> P	Adjust with body coil	Off	
Rotation	0.00 deg	Confirm freq. adjustment	Off	
Phase oversampling	0 %	Assume Silicone	Off	
FoV read	210 mm	! Ref. amplitude 1H	245.000 V	
FoV phase	100.0 %	Adjustment Tolerance	Auto	
Slice thickness	1.5 mm	Adjust volume		
TR	4000.0 ms	! Position	L0.1 A20.2 H6.1	
TE 1	19 ms	! Orientation	T > C-30.6	
TE 2	19 ms	! Rotation	0.00 deg	
Averages	1	! R >> L	210 mm	
Concatenations	1	! A >> P	210 mm	
Filter	None	! F >> H	45 mm	
Coil elements	B4;M2,3;T1	Physio		
Contrast		1st Signal/Mode	None	
MTC	Off	Ist Signal/Mode	None	
Magn. preparation	Non-sel. IR	Perf		
TI	1350 ms	GBP	Off	
Flip angle	90 deg	PBP	Off	
Fat suppr.	Fat sat.	TTP	Off	
		Original images	On	
Averaging mode	Long term	Sequence		
Reconstruction	Magnitude	Introduction	Off	
Measurements	110	Contrasts	2	
Delay in TR	0 ms	Bandwidth	1786 Hz/Px	
Multiple series	Off	Free echo spacing	Off	
Resolution		Echo spacing	0.66 ms	
Base resolution	140	Lond Spacing		
Phase resolution	100 %	EPI factor	140	
Phase partial Fourier	5/8	RF pulse type	Fast	
Interpolation	Off	Gradient mode	Normal	
PAT mode	None			
Distortion Corr.	Off			
Prescan Normalize	Off			
Raw filter	Off			
Elliptical filter	Off			
Hamming	Off			
Geometry	5			

Multi-slice mode

Series

Interleaved

Interleaved

	-	_grase_clean_VASO_V07_f l. SNR: 1.00 USER: BP gra	iunc_1450 ase_clean_VASO_V07_101320
TA. 7.20 FAT. OII VOX	er size. 1.5x1.5x1.5 illili Rei	. SNK. 1.00 USEK. BF_gla	
Description		Position	L0.0 P39.2 F23.4
Properties		Orientation	C > T30.8
Prio Recon	Off	Special sat.	None
Before measurement			
After measurement		Table position	Н
Load to viewer	On	Table position	0 mm
Inline movie	Off	Inline Composing	Off
Auto store images	On O"	System	
Load to stamp segments	Off	T1	On
Load images to graphic	Off	M2	On
segments	0"	B4	On
Auto open inline display	Off	M3	On
Start measurement without	On	V32	Off
further preparation	0"		
Wait for user to start	Off	Positioning mode	FIX
Start measurements	single	MSMA	S-C-T
Routine		Sagittal	R >> L
Slab group 1		- Coronal	A >> P
Slabs	1	Transversal	F >> H
Dist. factor	0 %	Save uncombined	Off
Position	R0.4 P38.2 F25.8	Coil Combine Mode	Adaptive Combine
Orientation	T > C-30.6	AutoAlign	
Phase enc. dir.	A >> P	Auto Coil Select	Default
Rotation	0.00 deg	Shim mode	Standard
Phase oversampling	0 %	Adjust with body coil	Off
Slice oversampling	0.0 %	Confirm freq. adjustment	Off
Slices per slab	8	Assume Silicone	Off
FoV read	192 mm	! Ref. amplitude 1H	230.000 V
FoV phase	25.0 %	Adjustment Tolerance	Auto
Slice thickness	1.5 mm	Adjust volume	71010
TR	4000 ms	Position	R0.4 P38.2 F25.8
TE	40.0 ms	Orientation	T > C-30.6
Averages	1	Rotation	0.00 deg
Concatenations	1	R >> L	192 mm
Filter	None	A >> P	48 mm
Coil elements	B4;M2,3;T1	F >> H	12 mm
I	, , ,	I	
Contrast	Nen cal ID	Physio	
Magn. preparation	Non-sel. IR	1st Signal/Mode	None
TI Flip opple	1450 ms	Composing	
Flip angle	180 deg		
Fat suppr.	Fat sat.	Sequence	
Fat sat. mode	Strong	Introduction	Off
Averaging mode	Long term	Dimension	3D
Reconstruction	Magnitude	Reordering	Centric
Measurements	110	Contrasts	2
Pause after meas.	0.0 s	Bandwidth	1148 Hz/Px
Multiple series	Off	Echo spacing	1 ms
Resolution		Turbo factor	5
Base resolution	128	EPI factor	32
Phase resolution	100 %	RF pulse type	Normal
ו וומטב ובטטוענוטוו	100 %	Gradient mode	Fast

Phase resolution 100 %	
Slice resolution 100 %	
Slice partial Fourier 5/8	
Interpolation Off	
PAT mode None	
Prescan Normalize Off	
Raw filter Off	

Geometry

	Series	Interleaved
-	Sat. region 1	
	Thickness	48 mm

flip angle excit

prepscans

phase encoding Maxwell compensation ICE program 90

ON Off single

0

\\USER\Feinberglab\Alex\CoilTest2018\localizer_50V_newcoil PAT: Off Voxel size: 1.2×1.1×3.0 mm Rel. SNR: 1.00 SIEM

TA: 0:27

SIEMENS: gre

1A. U.21 PA	AT. OII VOXEI SIZE. T.ZXT.TX	3.0 IIIII Rei. SNR. 1.00	SIEWENS. gre
		Dhaga recolution	00.0/
Properties		Phase resolution	90 % 6/8
Prio Recon	Off	Phase partial Fourier	
Before measurement		Interpolation	On
After measurement		PAT mode	None
Load to viewer	On		
Inline movie	Off	Image Filter	Off
Auto store images	On	Distortion Corr.	Off
Load to stamp segments	Off	Prescan Normalize	Off
Load images to graphic	Off	Normalize	Off
segments		B1 filter	Off
Auto open inline display	Off	Raw filter	Off
Start measurement without	On	Elliptical filter	Off
further preparation		Geometry	
Wait for user to start	Off	Multi-slice mode	Sequential
Start measurements	single	Series	Interleaved
Į.	onigio		
Routine		Saturation mode	Standard
Slice group 1		Special sat.	None
Slices	5		
Dist. factor	20 %	Table position	Н
Position	Isocenter	Table position	0 mm
Orientation	Sagittal	Inline Composing	Off
Phase enc. dir.	A >> P		
Rotation	0.00 deg	Tim CT mode	Off
Slice group 2	Ç	System	
Slices	5	B1	On
Dist. factor	20 %	B2	On
Position	L0.0 P77.6 H18.2	B3	On
Orientation	Coronal		_
Phase enc. dir.	R >> L	B4	On
Rotation	0.00 deg	B5	On
Slice group 3	0.00 dog	B6	On
Slices	5	B7	On
Dist. factor	20 %	B8	On
Position	L0.0 P77.6 H18.2	Positioning mode	FIX
Orientation	Transversal	MSMA	S - C - T
Phase enc. dir.	A >> P	Sagittal	R >> L
		Coronal	A >> P
Rotation	0.00 deg	Transversal	F >> H
Phase oversampling	0 %	Save uncombined	On
FoV read	280 mm	Coil Combine Mode	Sum of Squares
FoV phase	100.0 %	AutoAlign	Sulli of Squares
Slice thickness	3.0 mm	Auto Coil Select	Off
TR	10.0 ms	Auto Con Select	OII
TE	3.00 ms	Shim mode	Tune up
Averages	1	Adjust with body coil	Off
Concatenations	15	Confirm freq. adjustment	Off
Filter	None	Assume Silicone	Off
Coil elements	B1-8	! Ref. amplitude 1H	50.000 V
Contrast		Adjustment Tolerance	Auto
TD	0 ms	Adjust volume	
MTC	Off	Position	Isocenter
Magn. preparation	None	Orientation	Transversal
Flip angle		Rotation	0.00 deg
. •	10 deg None	R >> L	350 mm
Fat suppr.		A >> P	263 mm
Water suppr.	None	F >> H	350 mm
SWI	Off	1//11	330 IIIII
Averaging mode	Short term	Physio	
Reconstruction	Magnitude	1st Signal/Mode	None
Measurements	1	Segments	1
Multiple series	Each measurement		
1	_aon moadaromont	Tagging	None
Resolution		Dark blood	Off
Base resolution	256	Resp. control	Off
			

Inline

Subtract Liver registration Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Time	Off
Save original images Wash - In Wash - Out TTP PEI MIP - time MapIt Contrasts	On Off Off Off Off Off Off Off Off

Sequence

Introduction Dimension Phase stabilisation Asymmetric echo Bandwidth Flow comp.	On 2D Off Allowed 320 Hz/Px No
RF pulse type Gradient mode Excitation RF spoiling	Normal Whisper Slice-sel. On

\\USE	ER\Feinberglab\Alex\CoilTest	2018\b1map_100V_TR10	00_RL
TA: 1:09	Voxel size: 3.9×3.9×5.0 mm	Rel. SNR: 1.00 USER	: b1map_658
		B4	On
Properties		B5	On
Prio Recon	Off	B6	On
Before measurement		B7	On
After measurement		B8	On
Load to viewer	On		-
Inline movie	Off	Positioning mode	FIX
Auto store images	On	MSMA	S - C - T
Load to stamp segments	Off	Sagittal	R >> L
Load images to graphic	Off	Coronal	A >> P
segments		Transversal	F >> H
Auto open inline display	Off	Save uncombined	Off
Start measurement without	On	Coil Combine Mode	Adaptive Combine
further preparation		AutoAlign	
Wait for user to start	Off	Auto Coil Select	Default
Start measurements	single	China manda	T
Douting		Shim mode	Tune up
Routine		Adjust with body coil	Off
Slice group 1	40	Confirm freq. adjustment	Off
Slices	12	Assume Silicone	Off
Dist. factor	100 %	! Ref. amplitude 1H	100.000 V
Position	R0.7 A12.8 F16.2	Adjustment Tolerance	Auto
Orientation	Transversal	Adjust volume	
Phase enc. dir.	A >> P	Position	Isocenter
Rotation	0.00 deg	Orientation	Transversal
FoV read	250 mm	Rotation	0.00 deg
FoV phase	100.0 %	R >> L	350 mm
Slice thickness	5 mm	A >> P	263 mm
TR	1000 ms	F >> H	350 mm
TE 1	14 ms	Composing	
TE 2	14 ms	Composing	
Averages	1	Sequence	
Filter	None	Contrasts	2
Coil elements	B1-8	Bandwidth	260.416667 Hz/Px
Contrast		T1 Compensation	Mean T1
Flip angle 1	90 deg	Mean T1	1000.0 ms
Flip angle 2	120 deg	Angles	1
Flip angle 3	60 deg	Amplitude Weighting	Linear
Flip angle 4	135 deg	Scale Bar	Enabled
Flip angle 5	45 deg	Raw Data	Disabled
Measurements	1		
Resolution			
Base resolution	64		
Phase resolution	100 %		
Raw filter	Off		
Geometry			
Series	Interleaved		
Navigator 1			
Position	L0.0 P75.6 F0.7		
Orientation	Transversal		
Rotation	0.00 deg		
Base size phase	50 mm		
Base size read	50 mm		
	50 IIIII		
Thickness	50 mm		
Thickness			
Thickness Table position	50 mm		
Thickness	50 mm H		
Thickness Table position Table position	50 mm H 0 mm		
Thickness Table position Table position Inline Composing System B1	50 mm H 0 mm		
Thickness Table position Table position Inline Composing System	50 mm H 0 mm Off		

 $\verb|\USER\Feinberg| lab\Alex\CoilTest2018\localizer_200V_nova|$

TA: 0:27

PAT: Off

Voxel size: 1.2x1.1x3.0 mm Rel. SNR: 1.00

SIEMENS: gre

		1.170.0 11111 1101. 01111. 1.00	
Properties		Phase resolution	90 %
Prio Recon	Off	—— Phase partial Fourier	6/8
Before measurement	Oil	Interpolation	On
After measurement		PAT mode	None
Load to viewer	On		
Inline movie	Off	Image Filter	Off
		Distortion Corr.	Off
Auto store images	On O#	Prescan Normalize	Off
Load to stamp segments	Off	Normalize	Off
Load images to graphic	Off	B1 filter	Off
segments	0"	Raw filter	Off
Auto open inline display	Off	Elliptical filter	Off
Start measurement without	On	1	-
further preparation	0"	Geometry	
Wait for user to start	Off	Multi-slice mode	Sequential
Start measurements	single	Series	Interleaved
Routine		Saturation mode	Standard
Slice group 1		Special sat.	None
Slices	5		
Dist. factor	20 %	Table position	
Position	Isocenter	Table position	H 0 mm
Orientation	Sagittal	Table position	0 mm
Phase enc. dir.	A >> P	Inline Composing	Off
Rotation	0.00 deg	Tim CT mode	Off
Slice group 2	0.00 d e g		-
Slices	F	System	
	5 20 %	T1	On
Dist. factor		M2	On
Position	Isocenter	B4	On
Orientation	Coronal	M3	On
Phase enc. dir.	R >> L	V32	Off
Rotation	0.00 deg	Dopitioning mode	EIV
Slice group 3	_	Positioning mode	FIX
Slices	5	MSMA	S-C-T
Dist. factor	20 %	Sagittal	R >> L
Position	Isocenter	Coronal	A >> P
Orientation	Transversal	Transversal	F >> H
Phase enc. dir.	A >> P	Save uncombined	On
Rotation	0.00 deg	Coil Combine Mode	Sum of Squares
Phase oversampling	0 %	AutoAlign	
FoV read	280 mm	Auto Coil Select	Off
FoV phase	100.0 %	Shim mode	Tune up
Slice thickness	3.0 mm	Adjust with body coil	Off
TR	10.0 ms	Confirm freq. adjustment	Off
TE	3.00 ms	Assume Silicone	Off
Averages	1		_
Concatenations	15	! Ref. amplitude 1H	200.000 V
Filter	None	Adjustment Tolerance	Auto
Coil elements	B4;M2,3;T1	Adjust volume	le conter
I	, ,-1	Position	Isocenter
Contrast		Orientation	Transversal
TD	0 ms	Rotation	0.00 deg
MTC	Off	R >> L	350 mm
Magn. preparation	None	A >> P	263 mm
Flip angle	10 deg	F >> H	350 mm
Fat suppr.	None	Physio	
Water suppr.	None	1st Signal/Mode	None
SWI	Off		
	Oh 4 4 -	Segments	1
Averaging mode	Short term	Tagging	None
Reconstruction	Magnitude	Dark blood	Off
Measurements	1		
Multiple series	Each measurement	Resp. control	Off
Resolution		Inline	
Base resolution	256	Subtract	Off
Dago resolution	200	Cubitact	

Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	320 Hz/Px
Flow comp.	No
 RF pulse type	Normal
Gradient mode	Whisper
Excitation	Slice-sel.
RF spoiling	On

TA: 2:10	Voxel size: 3.9×3.9×5.	u mm - kei. SNK: 1.00 - USER	m Rel. SNR: 1.00 USER: b1map_658		
Properties		M3	On		
Prio Recon	Off	V32	Off		
Before measurement		Positioning mode	FIX		
After measurement		MSMA	S - C - T		
Load to viewer	On	Sagittal	R >> L		
Inline movie	Off	Coronal	A >> P		
Auto store images	On	Transversal	F >> H		
Load to stamp segments	Off	Save uncombined	Off		
Load images to graphic	Off	Coil Combine Mode	Adaptive Combine		
segments		AutoAlign	·		
Auto open inline display	Off	Auto Coil Select	Default		
Start measurement without	On	01:			
further preparation		Shim mode	Tune up		
Wait for user to start	Off	Adjust with body coil	Off		
Start measurements	single	Confirm freq. adjustment	Off		
•	<u> </u>	Assume Silicone	Off		
coutine		! Ref. amplitude 1H	100.000 V		
Slice group 1	40	Adjustment Tolerance	Auto		
Slices	12	Adjust volume			
Dist. factor	100 %	Position	Isocenter		
Position	R0.7 A30.3 F0.6	Orientation	Transversal		
Orientation	Transversal	Rotation	0.00 deg		
Phase enc. dir.	A >> P	R >> L	350 mm		
Rotation	0.00 deg	A >> P	263 mm		
FoV read	250 mm	F >> H	350 mm		
FoV phase	100.0 %	Composing			
Slice thickness	5 mm	Composing			
TR	1938 ms	Sequence			
TE 1	14 ms	Contrasts	2		
TE 2	14 ms	Bandwidth	260.416667 Hz/Px		
Averages	1				
Filter	None	T1 Compensation	Mean T1		
Coil elements	B4;M2,3;T1	Mean T1	1000.0 ms		
Contrast		Angles	1		
Flip angle 1	90 deg	Amplitude Weighting	Linear		
Flip angle 2	120 deg	Scale Bar	Enabled		
		Raw Data	Disabled		
Flip angle 3	60 deg				
Flip angle 4	135 deg				
Flip angle 5	45 deg				
Measurements	1				
Resolution Base resolution	64				
Phase resolution	100 %				
Raw filter	Off				
Raw iliter Geometry	Oil				
Series	Interleaved				
Navigator 1					
Position	L0.0 P35.8 F18.2				
Orientation	Transversal				
Rotation	0.00 deg				
Base size phase	50 mm				
Base size priase Base size read	50 mm				
Thickness	50 mm				
Table position	Н				
Table position	0 mm				
Inline Composing	Off				
	Jii				
System T1	On	<u></u>			
M2	On On				
IVIZ	On				

B4

On

 $\verb|\USER\Feinberg|| ab\Alex\CoilTest2018\gFactorMap_32||$

Rel. SNR: 1.00

USER: NoiseMeasSensitivityMap

Voxel size: 0.5×0.5×5.0 mm

TA: 3:13

TA. 3.13 VO	xei size. 0.5x0.5x5.0 iiiiii - i	Rei. Sink. 1.00 USER. Noise	weassensitivitywap
		Table position	Н
Properties		Table position	0 mm
Prio Recon	Off	Inline Composing	Off
Before measurement			
After measurement Load to viewer	On	System T1	On
Inline movie	Off	M2	On
Auto store images	On	B4	On
Load to stamp segments	Off	M3	On
Load images to graphic	Off	V32	Off
segments			
Auto open inline display	Off	Positioning mode	FIX
Start measurement without	On	MSMA	S - C - T
further preparation		Sagittal	R >> L
Wait for user to start	Off	Coronal	A >> P
Start measurements	single	Transversal	F >> H
Douting	G	Save uncombined	Off
Routine		Coil Combine Mode	Adaptive Combine
Slice group 1	40	AutoAlign	Defends
Slices Dist. factor	12	Auto Coil Select	Default
	100 %	Shim mode	Standard
Position	R0.7 A30.3 F0.6	Adjust with body coil	Off
Orientation	Transversal	Confirm freq. adjustment	Off
Phase enc. dir. Rotation	A >> P	Assume Silicone	Off
Phase oversampling	0.00 deg 0 %	! Ref. amplitude 1H	0.000 V
FoV read	250 mm	Adjustment Tolerance	Auto
FoV read FoV phase	100.0 %	Adjust volume	
Slice thickness	5.0 mm	! Position	Isocenter
TR	30 ms	! Orientation	Transversal
TE	6.0 ms	! Rotation	0.00 deg
Averages	1	! R >> L	350 mm
Concatenations	12	! A >> P	263 mm
Filter	None	! F >> H	350 mm
Coil elements	B4;M2,3;T1	Physio	
1	, ,-,	1st Signal/Mode	None
Contrast	0.000	'	
TD MTC	0 ms Off	Inline	0"
Flip angle		Subtract	Off
	10 deg None	Std-Dev-Sag	Off
Fat suppr. Water suppr.	None	Std-Dev-Cor	Off
vvater suppr.		Std-Dev-Tra Std-Dev-Time	Off Off
Averaging mode	Short term	MIP-Sag	Off
Reconstruction	Magnitude	MIP-Cor	Off
Measurements	1	MIP-Tra	Off
Multiple series	Off	MIP-Time	Off
Resolution		Save original images	On
Base resolution	496		
Phase resolution	100 %	Sequence	
Phase partial Fourier	Off	Introduction	Off
Interpolation	Off	Dimension	2D
		Contrasts	1
Image Filter	Off Off	Bandwidth	200 Hz/Px
Distortion Corr.	Off Off		
Prescan Normalize	Off Off	Gradient mode	Fast
Normalize B1 filter	Off	RF spoiling	On
Raw filter	Off Off	ICE program	CoilArrayUtil
Elliptical filter	Off	number of noise lines	384 lines
Elliptical filter	OII	Optimal SNR	On
Geometry		GFactor	On
Multi-slice mode	Sequential	Condition number	Off
Series	Ascending	Rx coil diode switching	On
Special sat.	None	coil channel reordering	Off
		TX/RX Nucleus	1H
•		23/176	11.1

TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz

Properties		Special sat.	None	
Prio Recon	Off	Table position	Н	
Before measurement		Table position	0 mm	
After measurement		Inline Composing	Off	
Load to viewer	On			
Inline movie	Off	System		
Auto store images	On	T1	On	
Load to stamp segments	Off	M2	On	
Load images to graphic	Off	B4	On	
segments	OII	M3	On	
Auto open inline display	Off	V32	Off	
Start measurement without	On	Desitioning and	FIV	
	On	Positioning mode	FIX	
further preparation	0#	MSMA	S - C - T	
Wait for user to start	Off	Sagittal	R >> L	
Start measurements	single	Coronal	A >> P	
Routine		Transversal	F >> H	
Slice group 1		Coil Combine Mode	Sum of Squares	
Slices	60	AutoAlign		
Dist. factor	0 %	Auto Coil Select	Default	
Position	u % L1.4 P45.2 F6.3	Chim was de	Ctandard	
	Coronal	Shim mode	Standard	
Orientation		Adjust with body coil	Off	
Phase enc. dir.	F >> H	Confirm freq. adjustment	On	
Rotation	90.00 deg	Assume Silicone	Off	
Phase oversampling	0 %	! Ref. amplitude 1H	0.000 V	
FoV read	90 mm	Adjustment Tolerance	Auto	
FoV phase	88.9 %	Adjust volume		
Slice thickness	0.50 mm	Position	L1.4 P45.2 F6.3	
TR	3000 ms	Orientation	Coronal	
TE	26.0 ms	Rotation	90.00 deg	
Multi-band accel. factor	2	R >> L	90 mm	
Filter	None	F >> H	80 mm	
Coil elements	B4;M2,3;T1	A >> P	30 mm	
Contrast	_ ',,.'	Physio	00 111111	
MTC	Off	1st Signal/Mode	None	
Magn. preparation	None	13t Signal/Mode	None	
Flip angle	80 deg	BOLD		
	Fat sat.	GLM Statistics	On	
Fat suppr.	Fal Sal.	Dynamic t-maps	Off	
Averaging mode	Long term	Starting ignore meas	0	
Reconstruction	Magnitude	Ignore after transition	0	
Measurements	63	Model transition states	On	
Delay in TR	0 ms	Temp. highpass filter	On	
Multiple series	Off	Threshold	4.00	
	5 11	Paradigm size	12	
Resolution		_	Active	
Base resolution	180	- Meas[1]		
Phase resolution	100 %	Meas[2] Active		
Phase partial Fourier	5/8	Meas[3]	Active	
Interpolation	Off	Meas[4]	Active	
		Meas[5]	Active	
PAT mode	GRAPPA	Meas[6]	Active	
Accel. factor PE	2	Meas[7]	Baseline	
Ref. lines PE	36	Meas[8]	Baseline	
Reference scan mode	Segmented	Meas[9]	Baseline	
Distortion Corr	O#	Meas[10]	Baseline	
Distortion Corr.	Off	Meas[11]	Baseline	
Prescan Normalize	Off	Meas[12]	Baseline	
Raw filter	On	Motion correction	Off	
Elliptical filter	Off	Spatial filter	Off	
Hamming	Off	Sequence		
Geometry			Off	
Multi-slice mode	Interleaved	Introduction Bandwidth	Oπ 816 Hz/Px	
		i Daliuwillii		
Series	Interleaved	Flow comp.	No	

Free echo spacing Echo spacing	Off 1.43 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 160 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 0 1/FoV 0 0 0 0 1 0 0 0 1 0 On Off Off Off Off Off Off Off Off Off

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	T1	On
Auto store images	On	M2	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	M3	On
segments	0"	V32	Off
Auto open inline display	Off		——————————————————————————————————————
Start measurement without	On	Positioning mode	FIX
further preparation Wait for user to start	Off	MSMA Societal	S - C - T R >> L
Start measurements	single	Sagittal Coronal	A >> P
l	Single	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	40	Auto Coil Select	Default
Dist. factor	0 %		
Position	L3.4 P45.8 F11.0	Shim mode	Standard
Orientation Phase enc. dir.	Coronal F >> H	Adjust with body coil	Off
Rotation	г >> п 90.00 deg	Confirm freq. adjustment Assume Silicone	On O#
Phase oversampling	90.00 deg 0 %	! Ref. amplitude 1H	Off 0.000 V
FoV read	90 mm	Adjustment Tolerance	Auto
FoV phase	88.3 %	Adjust volume	Adio
Slice thickness	0.75 mm	Position	L3.4 P45.8 F11.0
TR	3000 ms	Orientation	Coronal
TE	23.2 ms	Rotation	90.00 deg
Multi-band accel. factor	1	R >> L	90 mm
Filter	None	F >> H	80 mm
Coil elements	B4;M2,3;T1	A >> P	30 mm
Contrast	0"	Physio	
MTC Magn proporation	Off None	1st Signal/Mode	None
Magn. preparation		BOLD	
Elip angle		0.110	0#
Flip angle	80 deg	GLM Statistics	Off
Flip angle Fat suppr.	Fat sat.	GLM Statistics Dynamic t-maps	Off
Fat suppr. Averaging mode	Fat sat. Long term		
Fat suppr. Averaging mode Reconstruction	Fat sat. Long term Magnitude	Dynamic t-maps Starting ignore meas Ignore after transition	Off 0 0
Fat suppr. Averaging mode Reconstruction Measurements	Fat sat. Long term Magnitude 63	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states	Off 0 0 On
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR	Fat sat. Long term Magnitude 63 0 ms	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter	Off 0 0 On On
Fat suppr. Averaging mode Reconstruction Measurements	Fat sat. Long term Magnitude 63	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold	Off 0 0 On On 4.00
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR	Fat sat. Long term Magnitude 63 0 ms	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size	Off 0 0 On On 4.00 20
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series	Fat sat. Long term Magnitude 63 0 ms Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1]	Off 0 0 On On 4.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution	Fat sat. Long term Magnitude 63 0 ms Off 120 100 %	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2]	Off 0 0 On On 4.00 20 Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3]	Off 0 0 On On 4.00 20 Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution	Fat sat. Long term Magnitude 63 0 ms Off 120 100 %	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4]	Off 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8 Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	Off 0 0 On On 4.00 20 Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4]	Off 0 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8 Off GRAPPA	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	Off 0 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8 Off GRAPPA 2	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6]	Off 0 0 0 On On 4.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8] Meas[9] Meas[10]	Off 0 0 0 On On 4.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	Off 0 0 0 On On 4.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11]	Off 0 0 0 On On 4.00 20 Baseline Active Active
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[12]	Off 0 0 0 On On 4.00 20 Baseline Active Active Active
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[12] Meas[13] Meas[13] Meas[14]	Off 0 0 0 On On A.00 20 Baseline Bateline Baseline Bateline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[12] Meas[13] Meas[13] Meas[14] Meas[14] Meas[14]	Off 0 0 0 On On A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bathine Baseline Bathine Bath
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15] Meas[15] Meas[15] Meas[16]	Off 0 0 0 On On A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bathine Baseline Bathine Bath
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off Off Off Interleaved	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15] Meas[15] Meas[15] Meas[15] Meas[16] Meas[17]	Off 0 0 0 On On A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bathine Baseline Bathine Bath
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Fat sat. Long term Magnitude 63 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15] Meas[15] Meas[15] Meas[16]	Off 0 0 0 On On A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bathine Baseline Bathine Bath

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction	Off
Bandwidth	816 Hz/Px
Flow comp.	No O"
Free echo spacing	Off
Echo spacing	1.37 ms
SIR accel. factor	1
EPI factor	106
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5820 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
FFT scale factor	0.02 Never
Send B1 shim trigger	Standard
Triggering scheme Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0
(-)	-

\\USER\Feinberglab\Alex\CoilTest2018\AV	en2d hold	sd1inat2mh2	nt5mm	tSNR 32
	CDZU DOIU	JULIDUIZITIDZ		IOINI OZ

TA: 2:15 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	T1	On
Auto store images	On	M2	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	M3	On
segments		V32	Off
Auto open inline display	Off		OII
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
		Coil Combine Mode	Sum of Squares
Slice group 1 Slices	F0	AutoAlign	
	50	Auto Coil Select	Default
Dist. factor	0 %		
Position	L0.0 P66.1 F12.8	Shim mode	Standard
Orientation	Coronal	Adjust with body coil	Off
Phase enc. dir.	F >> H	Confirm freq. adjustment	On
Rotation	90.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	0.000 V
FoV read	90 mm	Adjustment Tolerance	Auto
FoV phase	88.9 %	Adjust volume	
Slice thickness	0.50 mm	Position	L0.0 P66.1 F12.8
TR	5000 ms	Orientation	Coronal
TE	26.0 ms	Rotation	90.00 deg
Multi-band accel. factor	2	R >> L	90 mm
Filter	None	F >> H	80 mm
Coil elements	B4;M2,3;T1	A >> P	25 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	90 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	20	Model transition states	On
Delay in TR	0 ms		On
Multiple series	Off	Temp. highpass filter Threshold	4.00
·	ŬII		
Resolution		Paradigm size	20 Pagalina
Base resolution	180	- Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	5/8	Meas[3]	Baseline
Interpolation	Off	Meas[4]	Baseline
		Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	2	Meas[7]	Baseline
Ref. lines PE	36	Meas[8]	Baseline
Reference scan mode	Segmented	Meas[9]	Baseline
Distortion Corr.	Off	Meas[10]	Baseline
Prescan Normalize	Off	Meas[11]	Active
Raw filter	On	Meas[12]	Active
	Off	Meas[13]	Active
Elliptical filter	Off	Meas[14]	Active
Hamming	UII	Meas[15]	Active
Geometry		Meas[16]	Active
Geometry			Active Active
_	Interleaved Interleaved	Meas[16]	

Meas[20] Motion correction	Active Off
Spatial filter	Off
Sequence	

S	equence	
	Introduction	Off
	Bandwidth	816 Hz/Px
	Flow comp.	No
	Free echo spacing	Off
	Echo spacing	1.43 ms
	SIR accel. factor	1
	EPI factor	160
	Gradient mode	Normal
	RF spoiling	Off
	Excite pulse duration	5820 us
	Slice multiplier	1
	Multi-band PE shift	0 1/FoV
	zBlip scheme	0
	MB kernel size	0
	MB knockout band	0
	No. of interleaved TEs	0 1
	RF pulse shape EPI noise scans	0
	EPI full reference scan	0
	Single-band images	On
	MB RF phase scramble	Off
	SENSE1 coil combine	Off
	Log physiology to file	Off
	Invert RO/PE polarity	Off
	Save reduced raw data	Off
	Readout slice trace	Off
	Disable ramp sampling	Off
	PF omits higher k-space	Off
	Online multi-band recon.	Online
	FFT scale factor	0.02
	Send B1 shim trigger	Never
	Triggering scheme	Standard
	Starting ignore meas	0
	Paradigm size	2
	Multiplier	1
	Step [1]	1
	Step [2]	0

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb1_pt5mm_tSNR_32

TA: 1:55 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments		M3	On Off
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Douting	-	Transversal	F >> H
Routine		- Coil Combine Mode	Sum of Squares
Slice group 1	50	AutoAlign	
Slices	50	Auto Coil Select	Default
Dist. factor	0 %		
Position	L0.0 P66.1 F12.8	Shim mode	Standard
Orientation	Coronal	Adjust with body coil	Off
Phase enc. dir.	F >> H	Confirm freq. adjustment	On
Rotation	90.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	0.000 V
FoV read	90 mm	Adjustment Tolerance	Auto
FoV phase	88.9 %	Adjust volume	
Slice thickness	0.50 mm	Position	L0.0 P66.1 F12.8
TR	5000 ms	Orientation	Coronal
TE	26.0 ms	Rotation	90.00 deg
Multi-band accel. factor	1	R >> L	90 mm
Filter	None	F >> H	80 mm
Coil elements	B4;M2,3;T1	A >> P	25 mm
Contrast	0"	Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	90 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	20	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
•	- ·-	Paradigm size	20
Resolution		- Meas[1]	Baseline
Base resolution	180	Meas[2]	Baseline
Phase resolution	100 %	Meas[3]	Baseline
Phase partial Fourier	5/8	Meas[4]	Baseline
Interpolation	Off	= =	Baseline Baseline
DAT mode	CDADDA	Meas[5]	
PAT mode	GRAPPA	Meas[6]	Baseline Baseline
Accel. factor PE	2	Meas[7]	Baseline
Ref. lines PE	36	Meas[8]	Baseline
Reference scan mode	Segmented	Meas[9]	Baseline
Distortion Corr.	Off	Meas[10]	Baseline
Prescan Normalize	Off	Meas[11]	Active
Raw filter	On	Meas[12]	Active
Elliptical filter	Off	Meas[13]	Active
Hamming	Off	Meas[14]	Active
· ·		Meas[15]	Active
Geometry		Meas[16]	Active
Multi-slice mode	Interleaved	Meas[17]	Active
Series	Interleaved	Meas[18]	Active
		Meas[19]	Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Sequence	

Sequence			
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 816 Hz/Px No Off 1.43 ms		
SIR accel. factor EPI factor Gradient mode RF spoiling	1 160 Normal Off		
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 1 0 1 0 Off Off Off Off Off		

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	-
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	011	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Docitioning mode	FIV
	Oli	Positioning mode	FIX
further preparation Wait for user to start	Off	MSMA	S-C-T
		Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	40	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	L0.0 P64.1 F11.5	Shim mode	Standard
Orientation	Coronal	Adjust with body coil	Off
Phase enc. dir.	F >> H		
Rotation	90.00 deg	Confirm freq. adjustment Assume Silicone	On Off
Phase oversampling	90.00 deg 0 %		
FoV read	90 mm	! Ref. amplitude 1H	0.000 V
		Adjustment Tolerance	Auto
FoV phase	88.3 %	Adjust volume	
Slice thickness	0.75 mm	Position	L0.0 P64.1 F11.5
TR	3000 ms	Orientation	Coronal
TE	23.8 ms	Rotation	90.00 deg
Multi-band accel. factor	2	R >> L	90 mm
Filter	None	F >> H	80 mm
Coil elements	B4;M2,3;T1	A >> P	30 mm
Contrast	0"	Physio	
MTC	Off	Physio 1st Signal/Mode	None
MTC Magn. preparation	None		None
MTC Magn. preparation Flip angle	None 80 deg	1st Signal/Mode BOLD	
MTC Magn. preparation	None	1st Signal/Mode BOLD GLM Statistics	Off
MTC Magn. preparation Flip angle Fat suppr.	None 80 deg Fat sat.	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps	Off Off
MTC Magn. preparation Flip angle Fat suppr. Averaging mode	None 80 deg Fat sat. Long term	BOLD GLM Statistics Dynamic t-maps Starting ignore meas	Off Off 0
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction	None 80 deg Fat sat. Long term Magnitude	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition	Off Off 0 0
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements	None 80 deg Fat sat. Long term Magnitude 20	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states	Off Off 0 0 0
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR	None 80 deg Fat sat. Long term Magnitude 20 0 ms	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter	Off Off 0 0 On On
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series	None 80 deg Fat sat. Long term Magnitude 20	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold	Off Off 0 0 0 On On 4.00
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR	None 80 deg Fat sat. Long term Magnitude 20 0 ms	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size	Off Off 0 0 On On 4.00 20
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series	None 80 deg Fat sat. Long term Magnitude 20 0 ms	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1]	Off Off 0 0 0 On On 4.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2]	Off Off Off O O O O A.00 20 Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3]	Off Off Off O O O O A.00 20 Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4]	Off Off Off O O O O O A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	Off Off Off O O O O O A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6]	Off Off Off O O O O O A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	Off Off Off O O O O O A.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6]	Off Off Off O O O O O A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	Off Off Off O O O O O A.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	Off Off Off O O O O O A.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off	Tst Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8] Meas[9] Meas[10]	Off Off Off O O O O O A.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off	Tst Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[9] Meas[10] Meas[11]	Off Off Off O O O O O A.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off Off	Tst Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Off Off Off O O O O O A.00 20 Baseline Bateline Baseline Baseline Bateline Bateline Bateline Bateline Bateline Bateline Bateline Bateline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off Off On Off	Tst Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13]	Off Off Off O O O O O A.00 20 Baseline Bateline Baseline Bateline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off Off	Tst Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14]	Off Off Off O O O O O A.00 20 Baseline Bateline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off Off On Off	Tst Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15]	Off Off Off O O O O O A.00 20 Baseline Active Active Active Active Active
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off	Tst Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[15] Meas[15] Meas[15] Meas[16]	Off Off Off O O O O O A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off Off On Off	Tst Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15]	Off Off Off O O O O O A.00 20 Baseline Active Active Active Active Active

Meas[20] Motion correction Spatial filter	Active Off Off
Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 816 Hz/Px No Off 1.41 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 106 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling	5820 us 1 0 1/FoV 0 0 0 0 1 0 0 0 On Off Off Off Off Off Off
PF omits higher k-space Online multi-band recon. FFT scale factor Send B1 shim trigger	Off Online 0.02 Never
Triggering scheme Starting ignore meas Paradigm size Multiplier	Standard 0 2
Step [1]	1

1 0

Step [1]

Step [2]

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	T1	On
Auto store images	On	M2	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	M3	On
segments		V32	Off
Auto open inline display	Off	V 32	
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	40	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	L0.0 P64.1 F11.5	Shim mode	Standard
Orientation	Coronal	Adjust with body coil	Off
Phase enc. dir.	F >> H	Confirm freq. adjustment	On
Rotation	90.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	0.000 V
FoV read	90 mm	Adjustment Tolerance	Auto
FoV phase	88.3 %	Adjust volume	Adio
Slice thickness	0.75 mm	Position	L0.0 P64.1 F11.5
TR	3000 ms	Orientation	Coronal
TE	23.8 ms	Rotation	90.00 deg
Multi-band accel. factor	1	R >> L	90 mm
Filter	None	F >> H	80 mm
Coil elements	B4;M2,3;T1	A >> P	30 mm
Contrast	, , ,	Physio	5 5
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	1st Signal/Wode	None
Flip angle	80 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
		Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	20	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	20
Base resolution	120	- Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	5/8	Meas[3]	Baseline
Interpolation	Off	Meas[4]	Baseline
		Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	2	Meas[7]	Baseline
Ref. lines PE	36	Meas[8]	Baseline
Reference scan mode	Segmented	Meas[9]	Baseline
Distortion Corr.	Off	Meas[10]	Baseline
Prescan Normalize	Off	Meas[11]	Active
Raw filter	On	Meas[12]	Active
Elliptical filter	Off	Meas[13]	Active
	•	Meas[14]	Active
Hamming	Off		A otivo
Hamming		Meas[15]	Active
Hamming Geometry	Off	Meas[15] Meas[16]	Active
Hamming Geometry Multi-slice mode	Off Interleaved	Meas[15] Meas[16] Meas[17]	Active Active
Hamming Geometry	Off	Meas[15] Meas[16]	Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence		
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 816 Hz/Px No Off 1.37 ms	
SIR accel. factor EPI factor Gradient mode RF spoiling	1 106 Normal Off	
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 1 0 1 0 Off Off Off Off Off	

\\USER\Feinberglab\Alex\CoilTest2018\AV	ep2d bold sd1ipat2mb2 1mr	n tSNR 32
	CPEG DOIG GGIIPGGEIIIDE IIIII	11 (0)11 02

TA: 1:12 PAT: Off Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Inline Composing	Off
Prio Recon	Off	System	
Before measurement		T1	On
After measurement		M2	On
Load to viewer	On	B4	On
Inline movie	Off	M3	On
Auto store images	On	V32	Off
Load to stamp segments	Off		
Load images to graphic	Off	Positioning mode	FIX
segments	311	MSMA	S - C - T
Auto open inline display	Off	Sagittal	R >> L
Start measurement without	On	Coronal	A >> P
	Oli	Transversal	F >> H
further preparation	Off	Coil Combine Mode	Sum of Squares
Wait for user to start	_	AutoAlign	·
Start measurements	single	Auto Coil Select	Default
Routine		- Shim mode	Standard
Slice group 1		Adjust with body coil	Off
Slices	30	Confirm freq. adjustment	On
Dist. factor	0 %	Assume Silicone	Off
Position	L0.0 P65.4 F10.8	! Ref. amplitude 1H	0.000 V
Orientation	Coronal		
Phase enc. dir.	F >> H	Adjustment Tolerance	Auto
Rotation	90.00 deg	Adjust volume	100000 45400
Phase oversampling	0 %	Position	L0.0 P65.4 F10.8
FoV read	90 mm	Orientation	Coronal
FoV phase	80.0 %	Rotation	90.00 deg
Slice thickness	1.00 mm	R >> L	90 mm
TR	3000 ms	F >> H	72 mm
TE	22.6 ms	A >> P	30 mm
Multi-band accel. factor	2	Physio	
Filter	None		None
Coil elements	B4;M2,3;T1	1st Signal/Mode	None
Con elements	D4,IVI2,3,11	BOLD	
Contrast		GLM Statistics	Off
MTC	Off	Dynamic t-maps	Off
Magn. preparation	None	Starting ignore meas	0
Flip angle	80 deg	Ignore after transition	0
Fat suppr.	Fat sat.	Model transition states	On
		Temp. highpass filter	On
Averaging mode	Long term	Threshold	4.00
Reconstruction	Magnitude	Paradigm size	20
Measurements	20	Meas[1]	Baseline
Delay in TR	0 ms	Meas[2]	Baseline
Multiple series	Off	Meas[3]	Baseline
Resolution		Meas[4]	Baseline
Base resolution	90	Meas[5]	Baseline
Phase resolution	100 %	Meas[6]	Baseline
	5/8		Baseline
Phase partial Fourier	5/8 Off	Meas[7]	Baseline Baseline
Interpolation	OII	Meas[8]	Baseline Baseline
PAT mode	None	Meas[9]	
	O#	Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off	Meas[12]	Active
Raw filter	On	Meas[13]	Active
Elliptical filter	Off	Meas[14]	Active
Hamming	Off	Meas[15]	Active
Geometry		Meas[16]	Active
Multi-slice mode	Interleaved	Meas[17]	Active
		Meas[18]	Active
		Meas[19]	Active
Series	Interleaved		7101170
	None	Meas[20]	Active
Special sat.	None	Meas[20] Motion correction	Active Off
		Meas[20]	Active

0094.01.00	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 816 Hz/Px No Off 1.37 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 72 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 0 1/FoV 0 0 0 0 1 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb1_1mm_tSNR_32				
TA: 1:06	PAT: Off	Voxel size: 1.0×1.0×1.0 mm	Rel. SNR: 1.00	USER: AV_ep2d_bold_sd_20140727

Properties		Inline Composing	Off
Prio Recon	Off	System	
Before measurement	.	T1	On
After measurement		M2	On
Load to viewer	On	B4	On
Inline movie	Off	M3	On
Auto store images	On	V32	Off
Load to stamp segments	Off		OII
Load images to graphic	Off	Positioning mode	FIX
segments	Oli	MSMA	S - C - T
Auto open inline display	Off	Sagittal	R >> L
Start measurement without	On	Coronal	A >> P
further preparation	011	Transversal	F >> H
Wait for user to start	Off	Coil Combine Mode	Sum of Squares
Start measurements	single	AutoAlign	
Start measurements	Sirigie	Auto Coil Select	Default
Routine		Chim mode	Standard
Slice group 1		- Shim mode	Standard
Slices	30	Adjust with body coil	Off
Dist. factor	0 %	Confirm freq. adjustment	On O#
Position	L0.0 P65.4 F10.8	Assume Silicone	Off
Orientation	Coronal	! Ref. amplitude 1H	0.000 V
Phase enc. dir.	F >> H	Adjustment Tolerance	Auto
Rotation	90.00 deg	Adjust volume	100 Bos 4 545 5
Phase oversampling	0 %	Position	L0.0 P65.4 F10.8
FoV read	90 mm	Orientation	Coronal
FoV phase	80.0 %	Rotation	90.00 deg
Slice thickness	1.00 mm	R >> L	90 mm
TR	3000 ms	F >> H	72 mm
TE	22.6 ms	A >> P	30 mm
Multi-band accel, factor	1	Physio	
Filter	None	1st Signal/Mode	None
Coil elements	B4;M2,3;T1	1st Signal/Wode	None
1	D+,WZ,5,11	BOLD	
Contrast		GLM Statistics	Off
MTC	Off	Dynamic t-maps	Off
Magn. preparation	None	Starting ignore meas	0
Flip angle	80 deg	Ignore after transition	0
Fat suppr.	Fat sat.	Model transition states	On
Averaging mode	Long term	Temp. highpass filter	On
Reconstruction	Magnitude	Threshold	4.00
Measurements	20	Paradigm size	20
	0 ms	Meas[1]	Baseline
Delay in TR Multiple series	U IIIO		
Multiple series		Meas[2]	Baseline
Resolution	Off	Meas[2] Meas[3]	
			Baseline
Base resolution		Meas[3]	Baseline Baseline
Base resolution Phase resolution	Off	Meas[3] - Meas[4] - Meas[5]	Baseline Baseline Baseline
	Off 90	Meas[3] Meas[4]	Baseline Baseline Baseline Baseline
Phase resolution Phase partial Fourier	Off 90 100 %	Meas[3] - Meas[4] - Meas[5] - Meas[6]	Baseline Baseline Baseline Baseline Baseline
Phase resolution Phase partial Fourier Interpolation	90 100 % 5/8 Off	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Phase resolution Phase partial Fourier	90 100 % 5/8	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Phase resolution Phase partial Fourier Interpolation PAT mode	90 100 % 5/8 Off None	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr.	90 100 % 5/8 Off None	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	Baseline
Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize	90 100 % 5/8 Off None Off	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Baseline Active
Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter	Off 90 100 % 5/8 Off None Off Off On	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active
Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	Off 90 100 % 5/8 Off None Off Off Off On Off	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active
Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter	Off 90 100 % 5/8 Off None Off Off On	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active
Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	Off 90 100 % 5/8 Off None Off Off Off On Off	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active Active
Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	Off 90 100 % 5/8 Off None Off Off Off On Off	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline Bateline Bateline Bateline Active Active Active Active Active Active Active Active
Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	90 100 % 5/8 Off None Off Off Off On Off	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[18]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active
Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode Series	Off 90 100 % 5/8 Off None Off Off Off On Off Off Off Interleaved Interleaved	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[18] Meas[18]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active
Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode	90 100 % 5/8 Off None Off Off Off On Off Off Interleaved	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[18] Meas[19] Meas[20]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active
Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode Series	Off 90 100 % 5/8 Off None Off Off Off On Off Off Off Interleaved Interleaved	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[18] Meas[18]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 816 Hz/Px No Off 1.33 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 72 Normal Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 1 0 1 0 0 Off Off Off Off Off Off Off Off 2 0 0 0 0 0 1 1 1 1 1 0

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SIEMENS: gre

PAT: Off Voxel size: 1.2x1.1x3.0 mm Rel. SNR: 1.00

TA: 0:27

171. 0.27		ATTAGE THE TOO STATE TOO	
Properties		Phase resolution	90 %
Prio Recon	Off	——— Phase partial Fourier	6/8
Before measurement	J 11	Interpolation	On
		PAT mode	None
After measurement	0.5	PAI mode	None
Load to viewer	On	Image Filter	Off
Inline movie	Off	Distortion Corr.	Off
Auto store images	On	Prescan Normalize	Off
Load to stamp segments	Off		
Load images to graphic	Off	Normalize	Off
segments		B1 filter	Off
Auto open inline display	Off	Raw filter	Off
Start measurement without	On	Elliptical filter	Off
	OII	Coometry	
further preparation	0#	Geometry	
Wait for user to start	Off	Multi-slice mode	Sequential
Start measurements	single	Series	Interleaved
Routine		Caturation made	Cton don'd
		Saturation mode	Standard
Slice group 1	_	Special sat.	None
Slices	5		
Dist. factor	20 %	Table position	Н
Position	Isocenter	Table position	0 mm
Orientation	Sagittal	Inline Composing	Off
Phase enc. dir.	A >> P	·······································	
Rotation	0.00 deg	Tim CT mode	Off
Slice group 2	5.50 dog	l	
Slices	5	System	
		LV1	On
Dist. factor	20 %	LV2	On
Position	L0.0 P77.6 H18.2	LV3	On
Orientation	Coronal	LV4	On
Phase enc. dir.	R >> L	LV5	On
Rotation	0.00 deg	LV6	On
Slice group 3	<u> </u>		On
Slices	5	LV7	_
Dist. factor	20 %	LV8	On
		LV9	On
Position	L0.0 P77.6 H18.2	L10	On
Orientation	Transversal	L11	On
Phase enc. dir.	A >> P	L12	On
Rotation	0.00 deg	L13	On
Phase oversampling	0 %	L14	On
FoV read	280 mm	L15	
FoV phase	100.0 %		On
Slice thickness	3.0 mm	L16	On
TR	10.0 ms	L17	On
TE		L18	On
	3.00 ms	L19	On
Averages	1	L20	On
Concatenations	15	L21	On
Filter	None	L22	On
Coil elements	L10-24;LV1-9	L23	On
ı		L24	On
Contrast			
TD	0 ms	Positioning mode	FIX
MTC	Off	MSMA	S - C - T
Magn. preparation	None	Sagittal	R >> L
Flip angle	10 deg	Coronal	A >> P
Fat suppr.	None		
Water suppr.	None	Transversal	F >> H
	Off	Save uncombined	On
SWI	OII	Coil Combine Mode	Sum of Squares
Averaging mode	Short term	AutoAlign	
Reconstruction	Magnitude	Auto Coil Select	Off
	14104		
Measurements	To all managements	Shim mode	Tune up
Multiple series	Each measurement	Adjust with body coil	Off
Resolution		Confirm freq. adjustment	Off
Base resolution	256	Assume Silicone	Off
Dago regolation	200	! Ref. amplitude 1H	50.000 V
		41/176	

Adjustment Tolerance Adjust volume	Auto
Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
R >> L	350 mm
A >> P	263 mm
F >> H	350 mm
l	330 11111
Physio 1st Signal/Mode	None
1st Signal/Mode Segments	1
	I
Tagging	None
Dark blood	Off
Resp. control	Off
Inline	
Subtract	Off
Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1
Sequence	
Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	320 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Whisper
Excitation	Slice-sel.
DE apoiling	On

On

RF spoiling

	\\USER\Feinberglab\Alex\Coil	Test2018\b1map 100V 2	4
TA: 1:09	Voxel size: 3.9×3.9×5.0 mm	·	b1map_658
Properties		LV4	On
Prio Recon	Off	LV5	On
Before measurement	Oil	LV6	On
After measurement		LV7	On
Load to viewer	On	LV8	On
		LV9	On
Inline movie	Off	L10	On
Auto store images	On O"	L11	On
Load to stamp segments	Off	L12	On
Load images to graphic	Off	L13	On
segments		L14	On
Auto open inline display	Off	L15	On
Start measurement without	On	L16	On
further preparation		L17	On
Wait for user to start	Off	L18	On
Start measurements	single	L19	On
Routine		L20	On
		L20	On
Slice group 1	40		
Slices	12	L22	On
Dist. factor	100 %	L23	On
Position	R0.7 A10.8 F4.0	L24	On
Orientation	Transversal	Positioning mode	FIX
Phase enc. dir.	A >> P	MSMA	S - C - T
Rotation	0.00 deg	Sagittal	R >> L
FoV read	250 mm	Coronal	A >> P
FoV phase	100.0 %	Transversal	F >> H
Slice thickness	5 mm	Save uncombined	Off
TR	1000 ms		
TE 1	14 ms	Coil Combine Mode	Adaptive Combine
TE 2	14 ms	AutoAlign	Defects
Averages	1	Auto Coil Select	Default
Filter	None	Shim mode	Tune up
Coil elements	L10-24;LV1-9	Adjust with body coil	Off
I	210 21,211 0	Confirm freq. adjustment	Off
Contrast		Assume Silicone	Off
Flip angle 1	90 deg	! Ref. amplitude 1H	100.000 V
Flip angle 2	120 deg	Adjustment Tolerance	Auto
Flip angle 3	60 deg	Adjust volume	Auto
Flip angle 4	135 deg	Position	Isocenter
Flip angle 5	45 deg	Orientation	Transversal
Measurements	1	Rotation	0.00 deg
Resolution		R >> L	350 mm
Base resolution	64	A >> P	263 mm
Phase resolution	100 %	F >> H	350 mm
		Composing	
Raw filter	Off		·
Coomotry		Sequence	
Geometry	late de eve d	Contrasts	2
Series	Interleaved	Bandwidth	260.416667 Hz/Px
Navigator 1		T4 Composition	Maga T4
Position	L0.0 P54.0 F18.2	T1 Compensation	Mean T1
Orientation	Transversal	Mean T1	1000.0 ms
Rotation	0.00 deg	Angles	1
Base size phase	50 mm	Amplitude Weighting	Linear
Base size read	50 mm	Scale Bar	Enabled
		Raw Data	Disabled
Thickness	50 mm		
Table position	Н		
Table position	0 mm		
Inline Composing	Off		
System			
LV1	On		
LV2	On		
LV3	On		
•	/13	1/176	

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Properties		Table position	Н
Prio Recon	Off	Table position	0 mm
Before measurement	OII	Inline Composing	Off
After measurement		System	
Load to viewer	On	LV1	On
Inline movie	Off	LV2	On
Auto store images	On	LV3	On
Load to stamp segments	Off	LV4	On
Load images to graphic	Off	LV5	On
segments		LV6	On
Auto open inline display	Off	LV7	On
Start measurement without	On	LV8	On
further preparation	0"	LV9	On
Wait for user to start	Off	L10	On
Start measurements	single	L11	On
Routine		L12	On
Slice group 1		L13	On On
Slices	12	L14	On On
Dist. factor	100 %	L15	On On
Position	R0.7 A24.3 F8.7	L16	On On
Orientation	Transversal	L17 L18	On On
Phase enc. dir.	A >> P	L18 L19	On On
Rotation	0.00 deg	L19 L20	On On
Phase oversampling	0 %	L20 L21	On On
FoV read	250 mm	L21 L22	On On
FoV phase	100.0 %	L22 L23	On
Slice thickness	5.0 mm	L23 L24	On
TR	30 ms		
ŢE	6.0 ms	Positioning mode	FIX
Averages	1	MSMA	S - C - T
Concatenations	12	Sagittal	R >> L
Filter	None	Coronal	A >> P
Coil elements	L10-24;LV1-9	Transversal	F >> H
Contrast		Save uncombined	Off
TD	0 ms	Coil Combine Mode	Adaptive Combine
MTC	Off	Auto Coil Soloct	 Dofault
Flip angle	10 deg	Auto Coil Select	Default
Fat suppr.	None	Shim mode	Standard
Water suppr.	None	Adjust with body coil	Off
		Confirm freq. adjustment	Off
Averaging mode Reconstruction	Short term Magnitude	Assume Silicone	Off
Measurements	мауннаа с 1	! Ref. amplitude 1H	0.000 V
Multiple series	Off	Adjustment Tolerance	Auto
•	OII	Adjust volume	
Resolution		! Position	Isocenter
Base resolution	496	! Orientation	Transversal
Phase resolution	100 %	! Rotation	0.00 deg
Phase partial Fourier	Off	! R >> L	350 mm
Interpolation	Off	! A >> P	263 mm
Image Filter	Off	···· ! F >> H	350 mm
Distortion Corr.	Off	Physio	
Prescan Normalize	Off	1st Signal/Mode	None
Normalize	Off		
B1 filter	Off	Inline	Off
Raw filter	Off	Subtract Std Doy Sag	Off
Elliptical filter	Off	Std-Dev-Sag	Off
•		Std-Dev-Cor	Off
Geometry Multiplies made	Commercial	Std-Dev-Tra	Off
Multi-slice mode	Sequential	Std-Dev-Time	Off Off
Series	Ascending	MIP-Sag MIP-Cor	Off
Special sat.	None	MIP-Cor MIP-Tra	Off

MIP-Time	Off
Save original images	On
Sequence	
Introduction Dimension Contrasts Bandwidth	Off 2D 1 200 Hz/Px
Gradient mode RF spoiling	Fast On
ICE program number of noise lines Optimal SNR GFactor Condition number Rx coil diode switching coil channel reordering	CoilArrayUtil 384 lines On On Off On Off
TX/RX Nucleus TX/RX delta frequency TX Nucleus TX delta frequency	1H 0 Hz None 0 Hz

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb2_pt5mm_visLoc_24 TA: 3:33 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	LV1	On
Load to stamp segments	Off	LV2	On
Load images to graphic	Off	LV3	On
segments		LV4	On
Auto open inline display	Off	LV5	On
Start measurement without	On	LV6	On
further preparation		LV7	On
Wait for user to start	Off	LV8	On
Start measurements	single	LV9	On
I	3	L10	On
Routine		L11	On
Slice group 1		L12	On
Slices	60	L13	On
Dist. factor	0 %	L14	On
Position	L0.1 P67.4 F10.3	L15	On
Orientation	Coronal	L16	On
Phase enc. dir.	F >> H	L17	On
Rotation	90.00 deg	L18	On
Phase oversampling	0 %	L19	On
FoV read	90 mm	L20	On
FoV phase	88.9 %	L21	On
Slice thickness	0.50 mm	L22	On
TR	3000 ms	L23	On
TE	26.0 ms	L24	On
Multi-band accel. factor	2	Positioning mode	FIX
Filter	None	MSMA	S - C - T
Coil elements	L10-24;LV1-9		R >> L
Contrast		Sagittal Coronal	K >> L A >> P
MTC	Off	Colonal Transversal	A >> P F >> H
_	_		
Magn. preparation	None	Coil Combine Mode	Sum of Squares
Flip angle	80 deg	AutoAlign Auto Coil Select	
Fat suppr.	Fat sat.	Auto Coll Select	Default
Averaging mode	Long term	Shim mode	Standard
Reconstruction	Magnitude	Adjust with body coil	Off
Measurements	63	Confirm freq. adjustment	On
Delay in TR	0 ms	Assume Silicone	Off
Multiple series	Off	! Ref. amplitude 1H	0.000 V
•		Adjustment Tolerance	Auto
Resolution	100	Adjust volume	
Base resolution	180	Position	L0.1 P67.4 F10.3
Phase resolution	100 %	Orientation	Coronal
Phase partial Fourier	5/8	Rotation	90.00 deg
Interpolation	Off	R >> L	90 mm
PAT mode	GRAPPA	F >> H	80 mm
Accel. factor PE	2	A >> P	30 mm
Ref. lines PE	36		
Reference scan mode	Segmented	Physio	
		1st Signal/Mode	None
Distortion Corr.	Off	BOLD	
Prescan Normalize	Off	GLM Statistics	Off
Raw filter	On	Dynamic t-maps	Off
Elliptical filter	Off	Starting ignore meas	0
Hamming	Off	Ignore after transition	0
Geometry		Model transition states	On
	Interlegued	Temp. highpass filter	On
Multi-slice mode	Interleaved Interleaved	Threshold	4.00
Series	inteneaveu	Paradigm size	20
1		i aradiyiri size	۷-

Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Introduction		- 1	
Bandwidth Flow comp. Free echo spacing Free echo	Se	quence	
EPI factor Gradient mode RF spoiling Off Excite pulse duration Slice multiplier Slice multiplier Multi-band PE shift Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Strading factor		Bandwidth Flow comp. Free echo spacing	816 Hz/Px No Off
Slice multiplier Multi-band PE shift ZBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Off Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Starting ignore meas Paradigm size Multiplier Step [1] O MB kernel sirt O 1/FoV		EPI factor Gradient mode	160 Normal
		Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1]	1

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb1_pt75mm_visLoc_24 TA: 3:21 PAT: 2 Voxel size: 0.7×0.8×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off		ш
	Oii	Table position	H 0 mm
Before measurement		Table position	0 mm
After measurement Load to viewer	On	Inline Composing	Off
		System	
Inline movie	Off	LV1	On
Auto store images	On Off	LV2	On
Load to stamp segments	Off	LV3	On
Load images to graphic	Off	LV4	On
segments	0#	LV5	On
Auto open inline display	Off	LV6	On
Start measurement without	On	LV7	On
further preparation	0"	LV8	On
Wait for user to start	Off	LV9	On
Start measurements	single	L10	On
Routine		L11	On
Slice group 1		- L12	On
Slices	40	L13	On
Dist. factor	0 %	L14	On
Position	L3.4 P67.4 F12.4	L15	On
Orientation	Coronal	L16	On
Phase enc. dir.	F >> H	L17	On
Rotation	90.00 deg	L18	On
Phase oversampling	0 %	L19	On
FoV read	90 mm	L20	On
FoV phase	88.3 %	L21	On
Slice thickness	0.75 mm	L22	On
TR	3000 ms	L23	On
TE	23.2 ms	L24	On
Multi-band accel. factor	1		
Filter	None	Positioning mode	FIX
Coil elements	L10-24;LV1-9	MSMA	S-C-T
1	,	Sagittal	R >> L
Contrast	0"	Coronal	A >> P
MTC .:	Off	Transversal	F >> H
Magn. preparation	None	Coil Combine Mode	Sum of Squares
Flip angle	80 deg	AutoAlign	 D ()
Fat suppr.	Fat sat.	Auto Coil Select	Default
Averaging mode	Long term	Shim mode	Standard
Reconstruction	Magnitude	Adjust with body coil	Off
Measurements	63	Confirm freq. adjustment	On
Delay in TR	0 ms	Assume Silicone	Off
Multiple series	Off	! Ref. amplitude 1H	0.000 V
•		Adjustment Tolerance	Auto
Resolution	100	- Adjust volume	
Base resolution	120	Position	L3.4 P67.4 F12.4
Phase resolution	100 %	Orientation	Coronal
Phase partial Fourier	5/8	Rotation	90.00 deg
Interpolation	Off	R >> L	90 mm
PAT mode	GRAPPA	F >> H	80 mm
Accel. factor PE	2	A >> P	30 mm
Ref. lines PE	36	ļ	
Reference scan mode	Segmented	Physio	N.
		1st Signal/Mode	None
Distortion Corr.	Off	BOLD	
Prescan Normalize	Off	GLM Statistics	Off
Raw filter	On	Dynamic t-maps	Off
Elliptical filter	Off	Starting ignore meas	0
Hamming	Off	Ignore after transition	0
Geometry		Model transition states	On
	Interleaved	Temp. highpass filter	On
Multi-slice mode Series	Interleaved Interleaved	Threshold	4.00
Selies	mieneaveu	Paradigm size	20
1		i diddigili size	-0

Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
	Baseline
Meas[10]	
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off
- It	

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 816 Hz/Px No Off 1.37 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 106 Normal Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier	5820 us 1 1 0 1 0 Off Off Off Off Off Off Off Off Standard 0 2 1
Step [1] Step [2]	1 0

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb2_pt5mm_tSNR_24

TA: 2:15 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	H
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	LV1	On
Auto store images	On	LV1	On
Load to stamp segments	Off	LV2	On
Load images to graphic	Off	LV4	On
segments		LV5	On
Auto open inline display	Off	LV6	On
Start measurement without	On	LV7	On
further preparation		LV8	On
Wait for user to start	Off	LV9	On
Start measurements	single	L10	On
Routine		L11	On
Slice group 1		L12	On
Slices	50	L13	On
Dist. factor	0 %	L14	On
Position	R1.3 P83.7 H0.0	L15	On
Orientation	Coronal	L16	On
Phase enc. dir.	F >> H	L17	On
Rotation	90.00 deg	L18	On
Phase oversampling	0 %	L19	On
FoV read	90 mm	L20	On
FoV phase	88.9 %	L21	On
Slice thickness	0.50 mm	L22	On
TR	5000 ms	L23	On
TE	26.0 ms	L24	On
Multi-band accel. factor	2		
Filter	None	Positioning mode	FIX
Coil elements	L10-24;LV1-9	MSMA	S - C - T
	L10 24,LV1 3	Sagittal	R >> L
Contrast		Coronal	A >> P
MTC	Off	Transversal	F >> H
Magn. preparation	None	Coil Combine Mode	Sum of Squares
Flip angle	90 deg	AutoAlign	
Fat suppr.	Fat sat.	Auto Coil Select	Default
Averaging mode	Long term	Shim mode	Standard
Reconstruction	Magnitude	Adjust with body coil	Off
Measurements	20	Confirm freq. adjustment	On
Delay in TR	0 ms	Assume Silicone	Off
Multiple series	Off	! Ref. amplitude 1H	0.000 V
•		Adjustment Tolerance	Auto
Resolution		Adjust volume	, 1010
Base resolution	180	Position	R1.3 P83.7 H0.0
Phase resolution	100 %	Orientation	Coronal
Phase partial Fourier	5/8	Rotation	90.00 deg
Interpolation	Off	R >> L	90 mm
PAT mode	GRAPPA	F >> H	80 mm
Accel. factor PE	2	A >> P	25 mm
Ref. lines PE	36	1	- -
Reference scan mode	Segmented	Physio	
		1st Signal/Mode	None
Distortion Corr.	Off	BOLD	
Prescan Normalize	Off	GLM Statistics	Off
Raw filter	On	Dynamic t-maps	Off
Elliptical filter	Off	Starting ignore meas	0
	Off	Ignore after transition	0
Hamming		iunore alter transitioni	•
· ·			On
Geometry		Model transition states	On On
· ·	Interleaved Interleaved		On On 4.00

Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence			
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 816 Hz/Px No Off 1.43 ms		
SIR accel. factor EPI factor Gradient mode RF spoiling	1 160 Normal Off		
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1]	5820 us 1 0 1/FoV 0 0 0 0 1 0 0 Omodification Off Off Off Off Off Off Off Online 0.02 Never Standard 0 2 1		
Step [2]	0		

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb1_pt5mm_tSNR_24

TA: 1:55 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	_ Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	Custom	
Inline movie	Off	System	0:5
Auto store images	On	LV1	On
Load to stamp segments	Off	LV2	On
Load images to graphic	Off	LV3	On
segments		LV4	On
Auto open inline display	Off	LV5	On
Start measurement without	On	LV6	On
further preparation		LV7	On
Wait for user to start	Off	LV8	On
Start measurements	single	LV9	On
D (3	L10	On
Routine		_ L11	On
Slice group 1		_ L12	On
Slices	50	L13	On
Dist. factor	0 %	L14	On
Position	R1.3 P83.7 H0.0	L15	On
Orientation	Coronal	L16	On
Phase enc. dir.	F >> H	L17	On
Rotation	90.00 deg	L18	On
Phase oversampling	0 %	L19	On
FoV read	90 mm	L20	On
FoV phase	88.9 %	L21	On
Slice thickness	0.50 mm	L22	On
TR	5000 ms	L23	On
TE	26.0 ms	L24	On
Multi-band accel. factor	1	Desition in a second	FIV
Filter	None	Positioning mode	FIX
Coil elements	L10-24;LV1-9	MSMA	S-C-T
	•	Sagittal	R >> L
Contrast		_ Coronal	A >> P
MTC	Off	Transversal	F >> H
Magn. preparation	None	Coil Combine Mode	Sum of Squares
Flip angle	90 deg	AutoAlign	
Fat suppr.	Fat sat.	Auto Coil Select	Default
Averaging mode	Long term	Shim mode	Standard
Reconstruction	Magnitude	Adjust with body coil	Off
Measurements	20	Confirm freq. adjustment	On
Delay in TR	0 ms	Assume Silicone	Off
Multiple series	Off	! Ref. amplitude 1H	0.000 V
Multiple selles	Oli	Adjustment Tolerance	Auto
Resolution		Adjust volume	Auto
Base resolution	180	Position	R1.3 P83.7 H0.0
Phase resolution	100 %		
Phase partial Fourier	5/8	Orientation	Coronal
Interpolation	Off	Rotation	90.00 deg
		R>>L	90 mm
PAT mode	GRAPPA	F >> H	80 mm
Accel. factor PE	2	A >> P	25 mm
Ref. lines PE	36	Physio	
Reference scan mode	Segmented	1st Signal/Mode	None
Distortion Corr.	Off	1	
Prescan Normalize	Off	BOLD	
Raw filter	On	GLM Statistics	Off
Elliptical filter	Off	Dynamic t-maps	Off
•	Off	Starting ignore meas	0
Hamming	Oil	Ignore after transition	0
Geometry		Model transition states	On
Multi-slice mode	Interleaved	Temp. highpass filter	On
Multi-Slice mode	Intericavea		
Series	Interleaved	Threshold	4.00

Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

٠	Sequence	
	Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 816 Hz/Px No Off 1.43 ms
	SIR accel. factor EPI factor Gradient mode RF spoiling	1 160 Normal Off
	Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 1 0 1 0 Off Off Off Off Off

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb2_pt75mm_tSNR_24

	TA: 1:24	PAT: 2	Voxel size: 0.7×0.8×0.8 mm	Rel. SNR: 1.00	USER: AV_ep2d_bold_sd_20140727
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Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement	311	Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On		
Inline movie	Off	System	
Auto store images	On	LV1	On
Load to stamp segments	Off	LV2	On
Load images to graphic	Off	LV3	On
segments	3.1	LV4	On
Auto open inline display	Off	LV5	On
Start measurement without	On	LV6	On
further preparation	9 11	LV7	On
Wait for user to start	Off	LV8	On
Start measurements	single	LV9	On
	Sirigio	L10	On
Routine		L11	On
Slice group 1		L12	On
Slices	40	L13	On
Dist. factor	0 %	L14	On
Position	L0.0 P80.9 H0.5	L15	On
Orientation	Coronal	L16	On
Phase enc. dir.	F >> H	L17	On
Rotation	90.00 deg	L18	On
Phase oversampling	0 %	L19	On
FoV read	90 mm	L20	On
FoV phase	88.3 %	L21	On
Slice thickness	0.75 mm	L22	On
TR	3000 ms	L23	On
TE	23.8 ms	L24	On
Multi-band accel. factor	2		
Filter	None	Positioning mode	FIX
Coil elements	L10-24;LV1-9	MSMA	S - C - T
ı	2.0 2.,27. 0	Sagittal	R >> L
Contrast		Coronal	A >> P
MTC	Off	Transversal	F >> H
Magn. preparation	None	Coil Combine Mode	Sum of Squares
Flip angle	80 deg	AutoAlign	
Fat suppr.	Fat sat.	Auto Coil Select	Default
Averaging mode	Long torm	Shim mode	Standard
Reconstruction	Long term Magnitude	Adjust with body coil	Off
Measurements	20	Confirm freq. adjustment	On
	0 ms	Assume Silicone	Off
Delay in TR	Off	! Ref. amplitude 1H	0.000 V
Multiple series	Oli		*****
Resolution		Adjustment Tolerance Adjust volume	Auto
Base resolution	120	Position	L0.0 P80.9 H0.5
Phase resolution	100 %	Orientation	
Phase partial Fourier	5/8		Coronal
Interpolation	Off	Rotation	90.00 deg
	OD 4 DD 4	R >> L	90 mm 80 mm
PAT mode	GRAPPA	F >> H	**
Accel. factor PE	2	A >> P	30 mm
Ref. lines PE	36	Physio	
Reference scan mode	Segmented	1st Signal/Mode	None
Distortion Corr.	Off		
Prescan Normalize	Off	BOLD	
Raw filter	On	GLM Statistics	Off
Elliptical filter	Off	Dynamic t-maps	Off
Hamming	Off	Starting ignore meas	0
	5 11	Ignore after transition	0
Geometry		Model transition states	On
Multi-slice mode	Interleaved	Temp. highpass filter	On
Series	Interleaved	Threshold	4.00
		Paradigm size	20
		54/176	

Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction Off	
Bandwidth 816 Hz/Px	
Flow comp. No	
Free echo spacing Off	
Echo spacing 1.41 ms	
SIR accel. factor 1	
EPI factor 106	
Gradient mode Normal	
RF spoiling Off	
Excite pulse duration 5820 us	
Slice multiplier 1	
Multi-band PE shift 0 1/FoV	
zBlip scheme 0	
MB kernel size 0	
MB knockout band 0	
No. of interleaved TEs 0	
RF pulse shape 1	
EPI noise scans 0	
EPI full reference scan 0	
Single-band images On	
MB RF phase scramble Off	
SENSE1 coil combine Off	
Log physiology to file Off	
Invert RO/PE polarity Off	
Save reduced raw data Off	
Readout slice trace Off	
Disable ramp sampling Off	
PF omits higher k-space Off Online multi-band recon. Online	
FFT scale factor 0.02	
Send B1 shim trigger Never	
Triggering scheme Standard	
Starting ignore meas 0	
Paradigm size 2	
Multiplier 1	
Step [1] 1	
Step [2] 0	

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	System LV1	On
Auto store images	On	LV1 LV2	On
Load to stamp segments	Off	LV2 LV3	On
Load images to graphic	Off	LV3	On
segments		LV5	On
Auto open inline display	Off	LV6	On
Start measurement without	On	LV7	On
further preparation		LV8	On
Wait for user to start	Off	LV9	On
Start measurements	single	L10	On
Routine		L11	On
Slice group 1		- L12	On
Slices	40	L13	On
Dist. factor	0 %	L14	On
Position	L0.0 P80.9 H0.5	L15	On
Orientation	Coronal	L16	On
Phase enc. dir.	F >> H	L17	On
Rotation	90.00 deg	L18	On
Phase oversampling	0 %	L19	On
FoV read	90 mm	L20	On
FoV phase	88.3 %	L21	On
Slice thickness	0.75 mm	L22	On
TR	3000 ms	L23	On
TE	23.8 ms	L24	On
Multi-band accel. factor	1	Positioning mode	FIX
Filter	None	MSMA	S - C - T
Coil elements	L10-24;LV1-9	Sagittal	R >> L
Contrast		Coronal	A >> P
MTC	Off	Transversal	F >> H
Magn. preparation	None	Coil Combine Mode	Sum of Squares
Flip angle	80 deg	AutoAlign	
Fat suppr.	Fat sat.	Auto Coil Select	Default
Averaging mode	Long term	Shim mode	Standard
Reconstruction	Magnitude	Adjust with body coil	Off
Measurements	20	Confirm freq. adjustment	On O"
Delay in TR	0 ms	Assume Silicone	Off
Multiple series	Off	! Ref. amplitude 1H	0.000 V
Resolution		Adjustment Tolerance	Auto
Base resolution	120	- Adjust volume Position	L0.0 P80.9 H0.5
Phase resolution	100 %	Orientation	Coronal
Phase partial Fourier	5/8	Rotation	90.00 deg
Interpolation	Off	Rotation R >> L	90.00 deg 90 mm
PAT mode	CDADDA	F >> H	80 mm
Accel. factor PE	GRAPPA 2	A >> P	30 mm
Ref. lines PE	36	I .	55 mm
Reference scan mode	Segmented	Physio	
		1st Signal/Mode	None
Distortion Corr.	Off	BOLD	
Prescan Normalize	Off	GLM Statistics	Off
Raw filter	On	Dynamic t-maps	Off
Elliptical filter	Off	Starting ignore meas	0
•			-
Hamming	Off		0
Hamming		Ignore after transition	0 On
Hamming Geometry	Off	Ignore after transition Model transition states	
Hamming		Ignore after transition	On

Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

S	Sequence	
	Introduction	Off
	Bandwidth	816 Hz/Px
	Flow comp.	No
	Free echo spacing	Off
	Echo spacing	1.37 ms
	SIR accel. factor	1
	EPI factor	106
	Gradient mode	Normal
	RF spoiling	Off
	Excite pulse duration	5820 us
	Slice multiplier	1
	Fake MB factor for SB	1
	No. of interleaved TEs	0
	RF pulse shape	1
	EPI noise scans	0
	EPI full reference scan	0
	SENSE1 coil combine	Off
	Log physiology to file	Off
	Invert RO/PE polarity	Off
	Save reduced raw data	Off
	Readout slice trace	Off
	Disable ramp sampling	Off
	PF omits higher k-space	Off
	FFT scale factor	0.02
	Send B1 shim trigger	Never
	Triggering scheme	Standard
	Starting ignore meas	0
	Paradigm size	2
	Multiplier	1
	Step [1]	1
	Step [2]	0

TA: 1:12 PAT: Off Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Inline Composing	Off
Prio Recon	Off	System	
Before measurement		LV1	On
After measurement		LV2	On
Load to viewer	On	LV3	On
Inline movie	Off	LV4	On
Auto store images	On	LV5	On
Load to stamp segments	Off	LV6	On
Load images to graphic	Off	LV7	On
segments	.	LV8	On
Auto open inline display	Off	LV9	On
Start measurement without	On	L10	On
further preparation	OII	L11	On
Wait for user to start	Off	L12	On
Start measurements	single	L13	On
Routine		L14	On
Slice group 1		- L15	On
Slices	30	L16	On
Dist. factor	0 %	L17	On
Position	L0.0 P80.2 H3.6	L18	On
Orientation	Coronal	L19	On
Phase enc. dir.	F >> H	L20	On
		L21	On
Rotation	90.00 deg	L22	On
Phase oversampling	0 %	L23	On
FoV read	90 mm	L24	On
FoV phase	80.0 %		
Slice thickness	1.00 mm	Positioning mode	FIX
TR	3000 ms	MSMA	S - C - T
TE	22.6 ms	Sagittal	R >> L
Multi-band accel. factor	2	Coronal	A >> P
Filter	None	Transversal	F >> H
Coil elements	L10-24;LV1-9	Coil Combine Mode	Sum of Squares
		AutoAlign	
Contrast		- Auto Coil Select	Default
MTC	Off		
Magn. preparation	None	Shim mode	Standard
Flip angle	80 deg	Adjust with body coil	Off
Fat suppr.	Fat sat.	Confirm freq. adjustment	On
		Assume Silicone	Off
Averaging mode	Long term	! Ref. amplitude 1H	0.000 V
Reconstruction	Magnitude	Adjustment Tolerance	Auto
Measurements	20	Adjust volume	
Delay in TR	0 ms	Position	L0.0 P80.2 H3.6
Multiple series	Off	Orientation	Coronal
Resolution		Rotation	90.00 deg
	00	- Rotation - R >> L	90.00 deg 90 mm
Base resolution	90	F >> L	72 mm
Phase resolution	100 %		. =
Phase partial Fourier	5/8	A >> P	30 mm
Interpolation	Off	Physio	
PAT mode	None	1st Signal/Mode	None
Distortion Corr.	Off	BOLD	
	_	GLM Statistics	Off
Prescan Normalize	Off		
Raw filter	On O"	Dynamic t-maps	Off
Elliptical filter	Off	Starting ignore meas	0
Hamming	Off	Ignore after transition	0
Geometry		Model transition states	On
	Intorioguad	Temp. highpass filter	On
Multi-slice mode	Interleaved	Threshold	4.00
Series	Interleaved	Paradigm size	20
	NI - :	Meas[1]	Baseline
Special set	NONE		
Special sat.	None		Baseline
Special sat. Table position	H	Meas[2] Meas[3]	Baseline Baseline

Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence			
Introduction	Off		
Bandwidth	816 Hz/Px		
Flow comp.	No		
Free echo spacing	Off		
Echo spacing	1.37 ms		
SIR accel. factor	1		
EPI factor	72		
Gradient mode	Normal		
RF spoiling	Off		
Excite pulse duration	5820 us		
Slice multiplier	1		
Multi-band PE shift	0 1/FoV		
zBlip scheme	0		
MB kernel size	0		
MB knockout band	0		
No. of interleaved TEs	0		
RF pulse shape	1		
EPI noise scans	0		
EPI full reference scan	0		
Single-band images	On		
MB RF phase scramble	Off		
SENSE1 coil combine	Off		
Log physiology to file	Off		
Invert RO/PE polarity	Off		
Save reduced raw data	Off		
Readout slice trace	Off		
Disable ramp sampling	Off		
PF omits higher k-space	Off		
Online multi-band recon.	Online		
FFT scale factor	0.02		
Send B1 shim trigger	Never		
Triggering scheme	Standard		
Starting ignore meas	0		
Paradigm size	2		
Multiplier	1		
Step [1]	1		
Step [2]	0		

Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727 TA: 1:06 Off Inline Composing **Properties**

Properties		mine composing	Oli
Prio Recon	Off	System	
Before measurement		LV1	On
After measurement		LV2	On
Load to viewer	On	LV3	On
Inline movie	Off	LV4	On
Auto store images	On	LV5	On
Load to stamp segments	Off	LV6	On
Load images to graphic	Off	LV7	On
	Oli	LV8	
segments	0"		On On
Auto open inline display	Off	LV9	On
Start measurement without	On	L10	On
further preparation		L11	On
Wait for user to start	Off	L12	On
Start measurements	single	L13	On
Routine		L14	On
		L15	On
Slice group 1		L16	On
Slices	30	L17	On
Dist. factor	0 %	L18	On
Position	L0.0 P80.2 H3.6	L19	On
Orientation	Coronal	L20	On
Phase enc. dir.	F >> H		
Rotation	90.00 deg	L21	On
Phase oversampling	0 %	L22	On
FoV read	90 mm	L23	On
FoV phase	80.0 %	L24	On
•		Desitioning mode	FIV
Slice thickness	1.00 mm	Positioning mode	FIX
TR	3000 ms	MSMA	S - C - T
TE	22.6 ms	Sagittal	R >> L
Multi-band accel. factor	1	Coronal	A >> P
Filter	None	Transversal	F >> H
Coil elements	L10-24;LV1-9	Coil Combine Mode	Sum of Squares
2		AutoAlign	
Contrast		Auto Coil Select	Default
MTC	Off		
Magn. preparation	None	Shim mode	Standard
Flip angle	80 deg	Adjust with body coil	Off
Fat suppr.	Fat sat.	Confirm freq. adjustment	On
Averaging mode	Long torm	Assume Silicone	Off
Averaging mode	Long term	! Ref. amplitude 1H	0.000 V
Reconstruction	Magnitude	Adjustment Tolerance	Auto
Measurements	20	Adjust volume	
Delay in TR	0 ms	Position	L0.0 P80.2 H3.6
Multiple series	Off	Orientation	Coronal
Panalutian			
Resolution		Rotation	90.00 deg
Base resolution	90	R >> L	90 mm
Phase resolution	100 %	F >> H	72 mm
Phase partial Fourier	5/8	A >> P	30 mm
Interpolation	Off	Physio	
			Mana
PAT mode	None	1st Signal/Mode	None
Distortion Corr.			
Prescan Normalize	Off	BOLD	
i iestaii Nuillalize	Off	BOLD GLM Statistics	Off
Dow filtor	Off	GLM Statistics	Off
Raw filter	Off On	GLM Statistics Dynamic t-maps	Off
Elliptical filter	Off On Off	GLM Statistics Dynamic t-maps Starting ignore meas	Off 0
	Off On	GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition	Off 0 0
Elliptical filter Hamming	Off On Off	GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states	Off 0 0 On
Elliptical filter Hamming Geometry	Off On Off Off	GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter	Off 0 0
Elliptical filter Hamming Geometry Multi-slice mode	Off On Off Off Interleaved	GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states	Off 0 0 On
Elliptical filter Hamming Geometry	Off On Off Off	GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold	Off 0 0 On On 4.00
Elliptical filter Hamming Geometry Multi-slice mode Series	Off On Off Off Off Interleaved Interleaved	GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size	Off 0 0 On On 4.00 20
Elliptical filter Hamming Geometry Multi-slice mode	Off On Off Off Interleaved	GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1]	Off 0 0 On On 4.00 20 Baseline
Elliptical filter Hamming Geometry Multi-slice mode Series	Off On Off Off Off Interleaved Interleaved	GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size	Off 0 0 On On 4.00 20

Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off
•	

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing SIR accel. factor	Off 816 Hz/Px No Off 1.33 ms
EPI factor Gradient mode RF spoiling	72 Normal Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 1 0 1 0 0 Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\CoilTest2018\localizer_50V_newcoil PAT: Off Voxel size: 1.2×1.1×3.0 mm Rel. SNR: 1.00 SIEM

SIEMENS: gre

TA: 0:27

Properties		Phase resolution Phase partial Fourier	90 % 6/8
Prio Recon	Off		
Before measurement		Interpolation	On
After measurement		PAT mode	None
Load to viewer	On		
Inline movie	Off	Image Filter	Off
		Distortion Corr.	Off
Auto store images	On O"	Prescan Normalize	Off
Load to stamp segments	Off	Normalize	Off
Load images to graphic	Off	B1 filter	Off
segments		Raw filter	Off
Auto open inline display	Off		
Start measurement without	On	Elliptical filter	Off
further preparation		Geometry	
Wait for user to start	Off	Multi-slice mode	Sequential
Start measurements	single	Series	Interleaved
Otalt measurements	Sirigie	Selles	Interieaved
Routine		Saturation mode	Standard
Slice group 1		Special sat.	None
Slices	5	Opecial Sat.	
Dist. factor	20 %		
		Table position	Н
Position	L0.0 A8.8 F17.5	Table position	0 mm
Orientation	Sagittal	Inline Composing	Off
Phase enc. dir.	A >> P		
Rotation	0.00 deg	Tim CT mode	Off
Slice group 2		System	
Slices	5		0.5
Dist. factor	20 %	B1	On
Position	L0.0 P68.8 H0.7	B2	On
		B3	On
Orientation	Coronal	B4	On
Phase enc. dir.	R >> L	B5	On
Rotation	0.00 deg	B6	On
Slice group 3		B7	On
Slices	5	B8	On
Dist. factor	20 %		
Position	L0.0 P68.8 H0.7	Positioning mode	FIX
Orientation	Transversal	MSMA	S - C - T
Phase enc. dir.		Sagittal	R >> L
	A >> P	Coronal	A >> P
Rotation	0.00 deg		
Phase oversampling	0 %	Transversal	F >> H
FoV read	280 mm	Save uncombined	On
FoV phase	100.0 %	Coil Combine Mode	Sum of Squares
Slice thickness	3.0 mm	AutoAlign	
TR	10.0 ms	Auto Coil Select	Off
TE	3.00 ms		<u>-</u>
Averages	1	Shim mode	Tune up
Concatenations	15	Adjust with body coil	Off
		Confirm freq. adjustment	Off
Filter	None	Assume Silicone	Off
Coil elements	B1-8	! Ref. amplitude 1H	50.000 V
Contrast		Adjustment Tolerance	Auto
	0 mg	Adjust volume	7 10.10
TD MTC	0 ms Off	Position	Isocenter
Magn. preparation	None	Orientation	Transversal
Flip angle	10 deg	Rotation	0.00 deg
Fat suppr.	None	R >> L	350 mm
Water suppr.	None	A >> P	263 mm
SWI	Off	F >> H	350 mm
		·	
Averaging mode	Short term	Physio	
Reconstruction	Magnitude	1st Signal/Mode	None
Measurements	1	Segments	1
Multiple series	Each measurement		
Widilipio solios		Tagging	None
Resolution		Dark blood	Off
Base resolution	256	Doon or tool	
ı		Resp. control	Off
		00/470	

Inline

Subtract Liver registration Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Time	Off
Save original images Wash - In Wash - Out TTP PEI MIP - time MapIt Contrasts	On Off Off Off Off Off Off Off Off

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	320 Hz/Px
Flow comp.	No
RF pulse type	Normal
Gradient mode	Whisper
Excitation	Slice-sel.
RF spoiling	On

	\\USER\Feinberglab\Alex\Coi	ilTest2018\b1map_100V_8	3
TA: 1:09	Voxel size: 3.9×3.9×5.0 mm	Rel. SNR: 1.00 USER:	b1map_658
		B4	On
Properties		B5	On
Prio Recon	Off	B6	On
Before measurement		B7	On
After measurement		B8	On
Load to viewer	On		
Inline movie	Off	Positioning mode	FIX
Auto store images	On	MSMA	S - C - T
Load to stamp segments	Off	Sagittal	R >> L
Load images to graphic	Off	Coronal	A >> P
segments		Transversal	F >> H
Auto open inline display	Off	Save uncombined	Off
Start measurement without	On	Coil Combine Mode	Adaptive Combine
further preparation		AutoAlign	
Wait for user to start	Off	Auto Coil Select	Default
Start measurements	single		· <u>-</u>
	<u>-</u>	Shim mode	Tune up
Routine		Adjust with body coil	Off
Slice group 1		Confirm freq. adjustment	Off
Slices	12	Assume Silicone	Off
Dist. factor	100 %	! Ref. amplitude 1H	100.000 V
Position	R0.7 A12.1 F2.0	Adjustment Tolerance	Auto
Orientation	Transversal	Adjust volume	
Phase enc. dir.	A >> P	Position	Isocenter
Rotation	0.00 deg	Orientation	Transversal
FoV read	250 mm	Rotation	0.00 deg
FoV phase	100.0 %	R >> L	350 mm
Slice thickness	5 mm	A >> P	263 mm
TR	1000 ms	F >> H	350 mm
TE 1	14 ms	1	333
TE 2	14 ms	Composing	
Averages	1	Sequence	
Filter	None	Contrasts	2
Coil elements	B1-8	Bandwidth	2 260.416667 Hz/Px
Contrast		T1 Compensation	Mean T1
Flip angle 1	90 deg	Mean T1	1000.0 ms
Flip angle 2	120 deg	Angles	1
Flip angle 3	60 deg	Amplitude Weighting	Linear
Flip angle 4	135 deg	Scale Bar	Enabled
Flip angle 5	45 deg	Raw Data	Disabled
Measurements	1	I	
Resolution			
Base resolution	64		
Phase resolution	100 %		
Raw filter	Off		
Geometry			
Series	Interleaved		
Navigator 1			
Position	L2.7 P68.1 H0.7		
Orientation	Transversal		
Rotation	0.00 deg		
Base size phase	23 mm		
Base size read	50 mm		
Thickness	50 mm		
Table position	Н		
Table position Table position	H 0 mm		
Table position Table position Inline Composing	H 0 mm Off		
Table position	0 mm		
Table position Inline Composing System B1	0 mm Off		
Table position Inline Composing System	0 mm Off		

\\USER\Feinberglab\Alex\CoilTest2018\gFactorMap_8

Rel. SNR: 1.00

USER: NoiseMeasSensitivityMap

Voxel size: 0.5×0.5×5.0 mm

TA: 3:13

Properties		Table position	Н
	Off	Table position	0 mm
Prio Recon	Off	Inline Composing	Off
Before measurement			
After measurement		System	
Load to viewer	On	B1	On
Inline movie	Off	B2	On
Auto store images	On	B3	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	B5	On
segments		B6	On
Auto open inline display	Off	B7	On
Start measurement without	On	B8	On
further preparation			
Wait for user to start	Off	Positioning mode	FIX
Start measurements	single	MSMA	S - C - T
	Sirigio	Sagittal	R >> L
Routine		Coronal	A >> P
Slice group 1		Transversal	F >> H
Slices	12	Save uncombined	Off
Dist. factor	100 %	Coil Combine Mode	Adaptive Combine
Position	R0.7 A12.1 F2.0	AutoAlign	
Orientation	Transversal	Auto Coil Select	Default
Phase enc. dir.	A >> P		
Rotation	0.00 deg	Shim mode	Standard
	0.00 deg 0 %	Adjust with body coil	Off
Phase oversampling		Confirm freq. adjustment	Off
FoV read	250 mm	Assume Silicone	Off
FoV phase	100.0 %	! Ref. amplitude 1H	0.000 V
Slice thickness	5.0 mm	Adjustment Tolerance	Auto
TR	30 ms	Adjust volume	Adio
TE	6.0 ms	! Position	Isocenter
Averages	1		
Concatenations	12	! Orientation	Transversal
Filter	None	! Rotation	0.00 deg
Coil elements	B1-8	! R >> L	350 mm
_		! A >> P	263 mm
Contrast		! F >> H	350 mm
TD	0 ms	Physio	
MTC	Off	1st Signal/Mode	None
Flip angle	10 deg	13t Olgital/Mode	None
Fat suppr.	None	Inline	
Water suppr.	None	Subtract	Off
Averaging mode	Chart tarm	Std-Dev-Sag	Off
Averaging mode	Short term	Std-Dev-Cor	Off
Reconstruction	Magnitude	Std-Dev-Tra	Off
Measurements	1	Std-Dev-Time	Off
Multiple series	Off	MIP-Sag	Off
Resolution		MIP-Cor	Off
Base resolution	406	MIP-Col	Off
	496		_
Phase resolution	100 %	MIP-Time	Off
Phase partial Fourier	Off	Save original images	On
Interpolation	Off		
Image Filter	Off	Sequence	
Distortion Corr.		Introduction	Off
	Off Off	Dimension	2D
Prescan Normalize	Off	Contrasts	1
Normalize	Off	Bandwidth	200 Hz/Px
B1 filter	Off		
Raw filter	Off	Gradient mode	Fast
Elliptical filter	Off	RF spoiling	On
Soomotry			O-:14
Geometry	Ozamani I	ICE program	CoilArrayUtil
Multi-slice mode	Sequential	number of noise lines	384 lines
Series	Ascending	Optimal SNR	On
Special sat.	None	GFactor	On
opeciai sal.	INOTIC	Condition number	Off

	Rx coil diode switching coil channel reordering	On Off
	TX/RX Nucleus TX/RX delta frequency	1H 0 Hz
	TX Nucleus	None
	TX delta frequency	0 Hz

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb2_pt5mm_visLoc_8

	TA: 3:33	PAT: 2	Voxel size: 0.5×0.5×0.5 mm	Rel. SNR: 1.00	USER: AV_ep2d_bold_sd_20140727
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Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	0.5
Auto store images	On	B1	On
Load to stamp segments	Off	B2	On
Load images to graphic	Off	B3	On
segments		B4	On
Auto open inline display	Off	B5	On
Start measurement without	On	B6	On
further preparation	011	B7	On
Wait for user to start	Off	B8	On
Start measurements	single	Positioning mode	FIX
Start measurements	Single	MSMA	S - C - T
Routine		_	
Slice group 1		- Sagittal	R >> L
Slices	60	Coronal	A >> P
Dist. factor	0 %	Transversal	F >> H
Position	L8.8 P72.2 F11.7	Coil Combine Mode	Sum of Squares
Orientation	Coronal	AutoAlign	
Phase enc. dir.	F >> H	Auto Coil Select	Default
Rotation	90.00 deg	Shim mode	Standard
Phase oversampling	90.00 deg 0 %	Shim mode	Standard
		Adjust with body coil	Off
FoV read	90 mm	Confirm freq. adjustment	On O"
FoV phase	88.9 %	Assume Silicone	Off
Slice thickness	0.50 mm	! Ref. amplitude 1H	0.000 V
TR	3000 ms	Adjustment Tolerance	Auto
TE	26.0 ms	Adjust volume	
Multi-band accel. factor	2	Position	L8.8 P72.2 F11.7
Filter	None	Orientation	Coronal
Coil elements	B1-8	Rotation	90.00 deg
Contrast		R >> L	90 mm
	0"	– F >> H	80 mm
MTC	Off	A >> P	30 mm
Magn. preparation	None		
Flip angle	80 deg	Physio	
Fat suppr.	Fat sat.	1st Signal/Mode	None
Averaging mode	Long term	BOLD	
Reconstruction	Magnitude	GLM Statistics	Off
Measurements	63		Off
Delay in TR	0 ms	Dynamic t-maps	
		Starting ignore meas	0
Multiple series	Off	Ignore after transition	0
Resolution		Model transition states	On
Base resolution	180	 Temp. highpass filter 	On
Phase resolution	100 %	Threshold	4.00
Phase partial Fourier	5/8	Paradigm size	20
Interpolation	Off	Meas[1]	Baseline
interpolation	OII	Meas[2]	Baseline
PAT mode	GRAPPA	Meas[3]	Baseline
Accel. factor PE	2	Meas[4]	Baseline
Ref. lines PE	36	Meas[5]	Baseline
Reference scan mode	Segmented	Meas[6]	Baseline
		Meas[7]	Baseline
Distortion Corr.	Off	Meas[8]	Baseline
Prescan Normalize	Off		Baseline
Raw filter	On	Meas[9]	
Elliptical filter	Off	Meas[10]	Baseline
Hamming	Off	Meas[11]	Active
		Meas[12]	Active
Geometry		Meas[13]	Active
Multi aliaa mada	Interleaved	Meas[14]	Active
Multi-slice mode			
Series	Interleaved	Meas[15] Meas[16]	Active Active

Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction Bandwidth	Off 816 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1.43 ms
SIR accel. factor	1
EPI factor	160
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0 On
Single-band images MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.02
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb1_pt75mm_visLoc_8

TA: 3:21 PAT: 2 Voxel size: 0.7×0.8×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On		
Inline movie	Off	System	
Auto store images	On	B1	On
Load to stamp segments	Off	B2	On
Load images to graphic	Off	B3	On
segments		B4	On
Auto open inline display	Off	B5	On
Start measurement without	On	B6	On
further preparation	•	B7	On
Wait for user to start	Off	B8	On
Start measurements	single	Positioning mode	FIX
	59.5	MSMA	S-C-T
Routine		- Sagittal	R >> L
Slice group 1	40	Coronal	A >> P
Slices	40	Transversal	F >> H
Dist. factor	0 %	Coil Combine Mode	Sum of Squares
Position	L3.4 P72.2 F9.0	AutoAlign	
Orientation	Coronal	Auto Coil Select	Default
Phase enc. dir.	F >> H	Auto Odii Obiect	
Rotation	90.00 deg	Shim mode	Standard
Phase oversampling	0 %	Adjust with body coil	Off
FoV read	90 mm	Confirm freq. adjustment	On
FoV phase	88.3 %	Assume Silicone	Off
Slice thickness	0.75 mm	! Ref. amplitude 1H	0.000 V
TR	3000 ms	Adjustment Tolerance	Auto
TE	23.2 ms	Adjust volume	
Multi-band accel. factor	1	Position	L3.4 P72.2 F9.0
Filter	None	Orientation	Coronal
Coil elements	B1-8	Rotation	90.00 deg
		R >> L	90 mm
Contrast		– F>> H	80 mm
MTC	Off	A >> P	30 mm
Magn. preparation	None	l	30 11111
Flip angle	80 deg	Physio	
Fat suppr.	Fat sat.	1st Signal/Mode	None
Averaging mode	Long term	BOLD	
Reconstruction	Magnitude	GLM Statistics	Off
Measurements	63	Dynamic t-maps	Off
Delay in TR	0 ms		
Multiple series	Off	Starting ignore meas Ignore after transition	0
•	Oil	<u> </u>	0
Resolution		Model transition states	On
Base resolution	120	Temp. highpass filter	On 4.00
Phase resolution	100 %	Threshold	4.00
Phase partial Fourier	5/8	Paradigm size	20
Interpolation	Off	Meas[1]	Baseline
		Meas[2]	Baseline
PAT mode	GRAPPA	Meas[3]	Baseline
Accel. factor PE	2	Meas[4]	Baseline
Ref. lines PE	36	Meas[5]	Baseline
Reference scan mode	Segmented	Meas[6]	Baseline
Distortion Corr.	Off	Meas[7]	Baseline
Prescan Normalize	Off	Meas[8]	Baseline
Raw filter	On	Meas[9]	Baseline
Elliptical filter	Off	Meas[10]	Baseline
•	Off	Meas[11]	Active
Hamming	Oli	Meas[12]	Active
Geometry		Meas[13]	Active
-	Interleaved	Meas[14]	Active
Multi-slice mode Series	Interleaved Interleaved	Meas[14] Meas[15]	Active Active

Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence				
Introduction	Off			
Bandwidth	816 Hz/Px			
Flow comp.	No			
Free echo spacing	Off			
Echo spacing	1.37 ms			
SIR accel. factor	1			
EPI factor	106			
Gradient mode	Normal			
RF spoiling	Off			
Excite pulse duration	5820 us			
Slice multiplier	1			
Fake MB factor for SB	1			
No. of interleaved TEs	0			
RF pulse shape	1			
EPI noise scans	0			
EPI full reference scan	0			
SENSE1 coil combine	Off			
Log physiology to file	Off			
Invert RO/PE polarity	Off			
Save reduced raw data	Off			
Readout slice trace	Off			
Disable ramp sampling	Off			
PF omits higher k-space	Off			
FFT scale factor	0.02			
Send B1 shim trigger	Never			
Triggering scheme	Standard			
Starting ignore meas	0			
Paradigm size	2			
Multiplier	1			
Step [1]	1			
Step [2]	0			

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb2_pt5mm_tSNR_8

TA: 2:15 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	H
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	B1	On
Load to stamp segments	Off	B2	On
Load images to graphic	Off	B3	On
segments	.	B4	On
Auto open inline display	Off	B5	On
Start measurement without	On	B6	On
further preparation	311	B7	On
Wait for user to start	Off	B8	On
Start measurements	single	Positioning mode	FIX
I	on igio	MSMA	S-C-T
Routine		- Sagittal	R >> L
Slice group 1		Coronal	A >> P
Slices	50		
Dist. factor	0 %	Transversal	F >> H
Position	R1.3 P88.1 F1.3	Coil Combine Mode	Sum of Squares
Orientation	Coronal	AutoAlign	Default
Phase enc. dir.	F >> H	Auto Coil Select	Default
Rotation	90.00 deg	Shim mode	Standard
Phase oversampling	0 %	Adjust with body coil	Off
FoV read	90 mm	Confirm freq. adjustment	On
FoV phase	88.9 %	Assume Silicone	Off
Slice thickness	0.50 mm	! Ref. amplitude 1H	0.000 V
TR	5000 ms	Adjustment Tolerance	Auto
TE	26.0 ms	Adjust volume	Auto
Multi-band accel. factor	2	Position	R1.3 P88.1 F1.3
Filter	None		
Coil elements	B1-8	Orientation	Coronal
Con elements	D1-0	Rotation	90.00 deg
Contrast		R >> L	90 mm
MTC	Off	- F >> H	80 mm
Magn. preparation	None	A >> P	25 mm
Flip angle	90 deg	Physio	
Fat suppr.	Fat sat.	1st Signal/Mode	None
	•	1	
Averaging mode	Long term	BOLD	
Reconstruction	Magnitude	GLM Statistics	Off
Measurements	20	Dynamic t-maps	Off
Delay in TR	0 ms	Starting ignore meas	0
Multiple series	Off	Ignore after transition	0
Resolution		Model transition states	On
Base resolution	180	 Temp. highpass filter 	On
		Threshold	4.00
Phase resolution	100 %	Paradigm size	20
Phase partial Fourier	5/8	Meas[1]	Baseline
Interpolation	Off	Meas[2]	Baseline
PAT mode	GRAPPA	Meas[3]	Baseline
Accel, factor PE	2	Meas[4]	Baseline
Ref. lines PE	36	Meas[5]	Baseline
Reference scan mode	Segmented	Meas[6]	Baseline
		Meas[7]	Baseline
Distortion Corr.	Off	Meas[8]	Baseline
Prescan Normalize	Off		Baseline
Raw filter	On	Meas[9] Meas[10]	Baseline Baseline
	OII		DASHILLE
Elliptical filter	Off	_ = =	
Elliptical filter Hamming		Meas[11]	Active
Hamming	Off	Meas[11] Meas[12]	Active Active
Hamming Geometry	Off Off	Meas[11] Meas[12] Meas[13]	Active Active Active
Hamming Geometry Multi-slice mode	Off Off Interleaved	Meas[11] Meas[12] Meas[13] Meas[14]	Active Active Active Active
Hamming Geometry	Off Off	Meas[11] Meas[12] Meas[13]	Active Active Active

Me	as[17]	Active
Me	as[18]	Active
Me	as[19]	Active
Me	as[20]	Active
Мо	tion correction	Off
Sp	atial filter	Off

Sequence				
Introduction	Off			
Bandwidth	816 Hz/Px			
Flow comp.	No O''			
Free echo spacing	Off			
Echo spacing	1.43 ms			
SIR accel. factor	1			
EPI factor	160			
Gradient mode	Normal			
RF spoiling	Off			
Excite pulse duration	5820 us			
Slice multiplier	1			
Multi-band PE shift	0 1/FoV			
zBlip scheme	0			
MB kernel size	0			
MB knockout band	0			
No. of interleaved TEs	0			
RF pulse shape	1			
EPI noise scans	0			
EPI full reference scan	0			
Single-band images	On			
MB RF phase scramble	Off			
SENSE1 coil combine	Off			
Log physiology to file	Off			
Invert RO/PE polarity	Off			
Save reduced raw data	Off			
Readout slice trace	Off			
Disable ramp sampling	Off Off			
PF omits higher k-space Online multi-band recon.	.			
FFT scale factor	0.02			
Send B1 shim trigger	Never			
Triggering scheme	Standard			
Starting ignore meas	0			
Paradigm size	2			
Multiplier	1			
Step [1]	1			
Step [2]	0			

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb1_pt5mm_tSNR_8

TA: 1:55 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	H
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	System	0.5
Auto store images	On	B1 B2	On On
Load to stamp segments	Off	B3	On
Load images to graphic	Off	B4	On
segments		B5	On
Auto open inline display	Off	B6	On
Start measurement without	On	B7	On
further preparation		B8	On
Wait for user to start	Off		
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S - C - T
Slice group 1		— Sagittal	R >> L
Slices	50	Coronal	A >> P
Dist. factor	0 %	Transversal	F >> H
Position	R1.3 P88.1 F1.3	Coil Combine Mode	Sum of Squares
Orientation	Coronal	AutoAlign	
Phase enc. dir.	F >> H	Auto Coil Select	Default
Rotation	90.00 deg	Shim mode	Standard
Phase oversampling	0 %	Adjust with body coil	Off
FoV read	90 mm	Confirm freq. adjustment	On
FoV phase	88.9 %	Assume Silicone	Off
Slice thickness	0.50 mm	! Ref. amplitude 1H	0.000 V
TR	5000 ms	Adjustment Tolerance	Auto
TE	26.0 ms	Adjust volume	Adio
Multi-band accel. factor	1	Position	R1.3 P88.1 F1.3
Filter	None	Orientation	Coronal
Coil elements	B1-8	Rotation	90.00 deg
		R >> L	90 mm
Contrast		— F>> H	80 mm
MTC	Off	A >> P	25 mm
Magn. preparation	None	ļ	20
Flip angle	90 deg	Physio	
Fat suppr.	Fat sat.	1st Signal/Mode	None
Averaging mode	Long term	BOLD	
Reconstruction	Magnitude	GLM Statistics	Off
Measurements	20	Dynamic t-maps	Off
Delay in TR	0 ms	Starting ignore meas	0
Multiple series	Off	Ignore after transition	0
Resolution		Model transition states	On
	190	Temp. highpass filter	On
Base resolution	180	Threshold	4.00
Phase resolution	100 %	Paradigm size	20
Phase partial Fourier	5/8 Off	Meas[1]	Baseline
Interpolation	Off	Meas[2]	Baseline
PAT mode	GRAPPA	Meas[3]	Baseline
Accel. factor PE	2	Meas[4]	Baseline
Ref. lines PE	36	Meas[5]	Baseline
Reference scan mode	Segmented	Meas[6]	Baseline
Distortion Carr		Meas[7]	Baseline
Distortion Corr.	Off Off	Meas[8]	Baseline
Prescan Normalize	Off	Meas[9]	Baseline
Raw filter	On O#	Meas[10]	Baseline
Elliptical filter	Off Off	Meas[11]	Active
Hamming	Off	Meas[12]	Active
Geometry		Meas[13]	Active
Multi-slice mode	Interleaved	Meas[14]	Active
Series	Interleaved	Meas[15]	Active

Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction	Off
Bandwidth	816 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1.43 ms
SIR accel. factor	1
EPI factor	160
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5820 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
FFT scale factor	0.02
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb2_pt75mm_tSNR_8

TA: 1:24 PAT: 2 Voxel size: 0.7×0.8×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	B1	On
Load to stamp segments	Off	B2	On
Load images to graphic	Off	B3	On
segments	0.11	B4	On
Auto open inline display	Off	B5	On
Start measurement without	On	B6	On
further preparation	On	B7	On
Wait for user to start	Off	B8	On
		D ''' ' 1	FIV
Start measurements	single	Positioning mode	FIX
Routine		MSMA	S - C - T
Slice group 1		— Sagittal	R >> L
Slices	40	Coronal	A >> P
Dist. factor	0 %	Transversal	F >> H
Position	L0.0 P85.6 F2.1	Coil Combine Mode	Sum of Squares
Orientation	Coronal	AutoAlign	
Phase enc. dir.	F >> H	Auto Coil Select	Default
Rotation	90.00 deg	Shim mode	Standard
Phase oversampling	90.00 deg 0 %	Shim mode	Standard Off
FoV read	90 mm	Adjust with body coil	Off
		Confirm freq. adjustment	On O"
FoV phase	88.3 %	Assume Silicone	Off
Slice thickness	0.75 mm	! Ref. amplitude 1H	0.000 V
TR	3000 ms	Adjustment Tolerance	Auto
TE	23.8 ms	Adjust volume	
Multi-band accel. factor	2	Position	L0.0 P85.6 F2.1
Filter	None	Orientation	Coronal
Coil elements	B1-8	Rotation	90.00 deg
Contrast		R >> L	90 mm
MTC	Off	— F >> H	80 mm
Magn. preparation	None	A >> P	30 mm
Flip angle	80 deg	Physio	
Fat suppr.	Fat sat.	1st Signal/Mode	None
		13t Signal/Mode	None
Averaging mode	Long term	BOLD	
Reconstruction	Magnitude	GLM Statistics	Off
Measurements	20	Dynamic t-maps	Off
Delay in TR	0 ms	Starting ignore meas	0
Multiple series	Off	Ignore after transition	0
		Model transition states	On
Resolution	400	Temp. highpass filter	On
Base resolution	120	Threshold	4.00
Phase resolution	100 %	Paradigm size	20
Phase partial Fourier	5/8	Meas[1]	Baseline
Interpolation	Off	Meas[2]	Baseline
PAT mode	GRAPPA	Meas[3]	Baseline
Accel. factor PE	2	Meas[3]	Baseline
Ref. lines PE	36		Baseline
		Meas[5]	
Reference scan mode	Segmented	Meas[6]	Baseline
Distortion Corr.	Off	Meas[7]	Baseline
Prescan Normalize	Off	Meas[8]	Baseline
Raw filter	On	Meas[9]	Baseline
Elliptical filter	Off	Meas[10]	Baseline
Hamming	Off	Meas[11]	Active
-	Jii	Meas[12]	Active
Geometry		Meas[13]	Active
		— Maga[4.4]	Active
Multi-slice mode	Interleaved	Meas[14]	
Multi-slice mode Series	Interleaved Interleaved	Meas[14] Meas[15]	Active

Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction Bandwidth	Off 816 Hz/Px
Flow comp.	No.
Free echo spacing	Off
Echo spacing	1.41 ms
SIR accel. factor	1
EPI factor	106
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size MB knockout band	0
No. of interleaved TEs	0 0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	9
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.02 Never
Send B1 shim trigger Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

\\USER\Feinberglab\Alex\CoilTest2018\AV_ep2d_bold_sd1ipat2mb1_pt75mm_tSNR_8

	TA: 1:12	PAT: 2	Voxel size: 0.7×0.8×0.8 mm	Rel. SNR: 1.00	USER: AV_ep2d_bold_sd_20140727
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Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement	-	Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	B1	On
Load to stamp segments	Off	B2	On
Load images to graphic	Off	B3	On
segments		B4	On
Auto open inline display	Off	B5	On
Start measurement without	On	B6	On
further preparation		B7	On
Wait for user to start	Off	B8	On
Start measurements	single	Positioning mode	FIX
1	Sing.S	MSMA	S-C-T
Routine		—— Sagittal	R >> L
Slice group 1		Coronal	A >> P
Slices	40	Transversal	F >> H
Dist. factor	0 %	Coil Combine Mode	Sum of Squares
Position	L0.0 P85.6 F2.1	AutoAlign	
Orientation	Coronal	Auto Coil Select	Default
Phase enc. dir.	F >> H	Auto Coii Select	Delauli
Rotation	90.00 deg	Shim mode	Standard
Phase oversampling	0 %	Adjust with body coil	Off
FoV read	90 mm	Confirm freq. adjustment	On
FoV phase	88.3 %	Assume Silicone	Off
Slice thickness	0.75 mm	! Ref. amplitude 1H	0.000 V
TR	3000 ms	Adjustment Tolerance	Auto
TE	23.8 ms	Adjust volume	
Multi-band accel. factor	1	Position	L0.0 P85.6 F2.1
Filter	None	Orientation	Coronal
Coil elements	B1-8	Rotation	90.00 deg
0		R >> L	90 mm
Contrast		F >> H	80 mm
MTC	Off	A >> P	30 mm
Magn. preparation	None	l	
Flip angle	80 deg	Physio	
Fat suppr.	Fat sat.	1st Signal/Mode	None
Averaging mode	Long term	BOLD	
Reconstruction	Magnitude	GLM Statistics	Off
Measurements	20	Dynamic t-maps	Off
Delay in TR	0 ms	Starting ignore meas	0
Multiple series	Off	Ignore after transition	0
	0	Model transition states	On
Resolution		Temp. highpass filter	On
Base resolution	120	Threshold	4.00
Phase resolution	100 %	Paradigm size	20
Phase partial Fourier	5/8	Meas[1]	Baseline
Interpolation	Off	Meas[1]	Baseline
PAT mode	GRAPPA	Meas[3]	Baseline
Accel. factor PE	GRAPPA 2	Meas[4]	Baseline Baseline
Ref. lines PE	36	Meas[5]	Baseline
Reference scan mode		= = =	Baseline Baseline
Velerence 20an 111006	Segmented	Meas[6]	
Distortion Corr.	Off	Meas[7]	Baseline Baseline
Prescan Normalize	Off	Meas[8]	
Raw filter	On	Meas[9]	Baseline
Elliptical filter	Off	Meas[10]	Baseline
Hamming	Off	Meas[11]	Active
i idiiiiiiig		Meas[12]	Active
Geometry		Meas[13]	Active
Geometry Multi-slice mode	Interleaved	Meas[14]	Active
Geometry	Interleaved Interleaved		

Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction	Off
Bandwidth	816 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1.37 ms
SIR accel. factor	1
EPI factor	106
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 1 0 1 0 Off Off Off Off Off
Starting ignore meas	0
Paradigm size	2
Multiplier	1

\\USER\Feinber	glab\Alex\CoilTest2018\AV_	ep2d bold	sd1ipat1mb2	1mm tSNR 8

TA: 1:12 PAT: Off Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Inline Composing	Off
Prio Recon	Off	System	
Before measurement	~··	B1	On
After measurement		B2	On
Load to viewer	On	B3	On
Inline movie	Off	B4	On
Auto store images	On	B5	On
Load to stamp segments	Off	B6	On
Load images to graphic	Off	B7	On
segments	Oll	B8	On
•	Off	DO	
Auto open inline display		Positioning mode	FIX
Start measurement without	On	MSMA	S - C - T
further preparation	0"	Sagittal	R >> L
Wait for user to start	Off	Coronal	A >> P
Start measurements	single	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	30	Auto Coil Select	Default
Dist. factor	0 %	Chim mode	Standard
Position	L0.0 P84.8 H1.1	Shim mode	Standard
Orientation	Coronal	Adjust with body coil	Off
Phase enc. dir.	F >> H	Confirm freq. adjustment	On O"
Rotation	90.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	0.000 V
FoV read	90 mm	Adjustment Tolerance	Auto
FoV phase	80.0 %	Adjust volume	
Slice thickness	1.00 mm	Position	L0.0 P84.8 H1.1
TR	3000 ms	Orientation	Coronal
TE	22.6 ms	Rotation	90.00 deg
Multi-band accel. factor	2	R >> L	90 mm
		F >> H	72 mm
Filter	None	A >> P	30 mm
Coil elements	B1-8	Physio	
Contrast		- 1st Signal/Mode	None
MTC	Off	1	110110
Magn. preparation	None	BOLD	
Flip angle	80 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	20	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
		Threshold	4.00
Multiple series	Off	Paradigm size	20
Resolution		Meas[1]	Baseline
Base resolution	90	Meas[2]	Baseline
Phase resolution	100 %	Meas[3]	Baseline
Phase partial Fourier	5/8	Meas[4]	Baseline
Interpolation	Off	Meas[5]	Baseline
		Meas[6]	Baseline
PAT mode	None	Meas[7]	Baseline
Distortion Corr.	Off	Meas[8]	Baseline
Prescan Normalize	Off	Meas[9]	Baseline
Raw filter	On	Meas[10]	Baseline
Elliptical filter	Off	Meas[11]	Active
		Meas[12]	Active
Hamming	Off	Meas[13]	Active
Geometry			
	Interleaved	Meas[14]	Active
Multi-slice mode	Interleaved	Meas[15]	Active
	Interleaved Interleaved	Meas[15] Meas[16]	Active Active
Multi-slice mode		Meas[15] Meas[16] Meas[17]	Active Active Active
Multi-slice mode Series Special sat.	Interleaved None	Meas[15] Meas[16] Meas[17] Meas[18]	Active Active Active Active
Multi-slice mode Series	Interleaved	Meas[15] Meas[16] Meas[17]	Active Active Active

	Meas[20] Motion correction Spatial filter	Active Off Off
S	Sequence	
	Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 816 Hz/Px No Off 1.37 ms
	SIR accel. factor EPI factor Gradient mode RF spoiling	1 72 Normal Off
	Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data	5820 us 1 0 1/FoV 0 0 0 0 0 0 0 0 0 0 ff Off Off Off

Off

Off

Off

Online

Never

Standard

0.02

0

2

1

1 0

Readout slice trace

FFT scale factor

Paradigm size

Multiplier

Step [1]

Step [2]

Disable ramp sampling

PF omits higher k-space

Online multi-band recon.

Send B1 shim trigger

Starting ignore meas

Triggering scheme

	\\USER\Fei	nberglab\Alex\CoilTest2018\	AV_ep2d_bold_s	sd1ipat1mb1_1mm_tSNR_8
TA: 1:06	PAT: Off	Voxel size: 1.0×1.0×1.0 mm	Rel. SNR: 1.00	USER: AV_ep2d_bold_sd_20140727

Description		Inline Composing	Off
Properties	0"	1	
Prio Recon	Off	System	0.5
Before measurement		B1 B2	On On
After measurement Load to viewer	On	B3	On
Inline movie	Off	B4	On
Auto store images	On	B5	On
Load to stamp segments	Off	B6	On
Load images to graphic	Off	B7	On
segments	.	B8	On
Auto open inline display	Off		
Start measurement without	On	Positioning mode	FIX
further preparation	.	MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
1	5g.5	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	30	Auto Coil Select	Default
Dist. factor	0 %	Shim mode	Standard
Position	L0.0 P84.8 H1.1	Adjust with body coil	Off
Orientation	Coronal	Confirm freq. adjustment	On
Phase enc. dir.	F >> H	Assume Silicone	Off
Rotation	90.00 deg	! Ref. amplitude 1H	0.000 V
Phase oversampling	0 %	Adjustment Tolerance	Auto
FoV read	90 mm	Adjust volume	
FoV phase	80.0 %	Position	L0.0 P84.8 H1.1
Slice thickness	1.00 mm	Orientation	Coronal
TR	3000 ms	Rotation	90.00 deg
TE Multi-band accel. factor	22.6 ms 1	R >> L	90 mm
Filter	None	F >> H	72 mm
Coil elements	B1-8	A >> P	30 mm
	Б1-0	Physio	
Contrast		- 1st Signal/Mode	None
MTC	Off		110110
Magn. preparation	None	BOLD	
Flip angle	80 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	20	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00 20
Resolution		Paradigm size	ZO
RESORDOR			
	00	Meas[1]	Baseline
Base resolution	90	Meas[1] Meas[2]	Baseline Baseline
Base resolution Phase resolution	100 %	Meas[1] Meas[2] Meas[3]	Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier	100 % 5/8	Meas[1] Meas[2] Meas[3] Meas[4]	Baseline Baseline Baseline Baseline
Base resolution Phase resolution	100 %	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier	100 % 5/8	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode	100 % 5/8 Off None	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr.	100 % 5/8 Off None	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize	100 % 5/8 Off None Off Off	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter	100 % 5/8 Off None Off Off On	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10]	Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	100 % 5/8 Off None Off Off Off On Off	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	Baseline Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter	100 % 5/8 Off None Off Off On	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Baseline Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	100 % 5/8 Off None Off Off Off On Off	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	Baseline Bateline Baseline Active Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	100 % 5/8 Off None Off Off Off On Off Off Off	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	Baseline Active Active Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	100 % 5/8 Off None Off Off Off On Off Off	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	Baseline Active Active Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode Series	100 % 5/8 Off None Off Off Off On Off Off Interleaved Interleaved	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline Bateline Bateline Bateline Bateline Bateline Bateline Active Active Active Active Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode Series Special sat.	100 % 5/8 Off None Off Off Off On Off Off Off	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17]	Baseline Active Active Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode Series Special sat. Table position	100 % 5/8 Off None Off Off Off On Off Off Interleaved Interleaved None H	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[15] Meas[16] Meas[17] Meas[18]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline Bateline Bateline Bateline Bateline Bateline Bateline Active Active Active Active Active Active Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode Series Special sat.	100 % 5/8 Off None Off Off Off On Off Off Interleaved Interleaved None H 0 mm	Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17]	Baseline Active

Meas[20] Motion correction Spatial filter	Active Off Off
Sequence	
1 (1 (O.((

	Sequence	
	Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 816 Hz/Px No Off 1.33 ms
	SIR accel. factor EPI factor Gradient mode RF spoiling	1 72 Normal Off
	Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1]	5820 us 1 1 0 1 0 Off Off Off Off Off
I	Step [2]	· ·

\\USER\Feinberglab\Alex\CoilComparison_JT\localizer_200V_nova Voxel size: 1.2×1.1×3.0 mm Rel. SNR: 1.00

SIEMENS: gre

TA: 0:27

PAT: Off

174. 0.27	VVII. 011 VOXCI 3120: 1.2.	X1:1X0:0 11111	GIEWENG. gre
Properties		Phase resolution	90 %
Prio Recon	Off	Phase partial Fourier	6/8
	Oli	Interpolation	On
Before measurement		DAT media	Nama
After measurement		PAT mode	None
Load to viewer	On	Image Filter	Off
Inline movie	Off	Distortion Corr.	Off
Auto store images	On	Prescan Normalize	Off
Load to stamp segments	Off	Normalize	Off
Load images to graphic	Off	B1 filter	Off
segments		Raw filter	Off
Auto open inline display	Off		
Start measurement without	On	Elliptical filter	Off
further preparation		Geometry	
Wait for user to start	Off	Multi-slice mode	Sequential
Start measurements	single	Series	Interleaved
	Sirigio		
Routine		Saturation mode	Standard
Slice group 1		Special sat.	None
Slices	5		
Dist. factor	20 %	Table position	Н
Position	Isocenter	Table position	0 mm
Orientation	Sagittal	Inline Composing	Off
Phase enc. dir.	A >> P	inine Composing	
Rotation	0.00 deg	Tim CT mode	Off
Slice group 2	0.00 deg	_	-
Slices	F	System	
	5	T1	On
Dist. factor	20 %	M2	On
Position	Isocenter	B4	On
Orientation	Coronal	M3	On
Phase enc. dir.	R >> L	V32	Off
Rotation	0.00 deg		
Slice group 3		Positioning mode	FIX
Slices	5	MSMA	S - C - T
Dist. factor	20 %	Sagittal	R >> L
Position	Isocenter	Coronal	A >> P
Orientation	Transversal	Transversal	F >> H
Phase enc. dir.	A >> P	Save uncombined	On
Rotation	0.00 deg	Coil Combine Mode	Sum of Squares
Phase oversampling	0.00 deg	AutoAlign	
	280 mm	Auto Coil Select	Off
FoV read			
FoV phase	100.0 %	Shim mode	Tune up
Slice thickness	3.0 mm	Adjust with body coil	Off
TR	10.0 ms	Confirm freq. adjustment	Off
TE	3.00 ms	Assume Silicone	Off
Averages	1	! Ref. amplitude 1H	200.000 V
Concatenations	15	Adjustment Tolerance	Auto
Filter	None	Adjust volume	- 1010
Coil elements	B4;M2,3;T1	Position	Isocenter
Contrast		Orientation	Transversal
	0.750	Rotation	
TD	0 ms		0.00 deg
MTC	Off	R >> L	350 mm
Magn. preparation	None	A >> P	263 mm
Flip angle	10 deg	F >> H	350 mm
Fat suppr.	None	Physio	
Water suppr.	None	1st Signal/Mode	None
SWI	Off	Segments	1
A	Ol	Segments	l
Averaging mode	Short term	Tagging	None
Reconstruction	Magnitude	Dark blood	Off
Measurements	1		
Multiple series	Each measurement	Resp. control	Off
Resolution		Inline	
	256		Off
Base resolution	256	Subtract	Off

Liver registration Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor MIP-Tra MIP-Time Save original images	Off
Wash - In Wash - Out TTP PEI MIP - time MapIt Contrasts	Off Off Off Off Off Off Off

Sequence

Introducti	ion	On
Dimensio	n	2D
Phase sta	abilisation	Off
Asymmet	tric echo	Allowed
Bandwidt	th	320 Hz/Px
Flow com	np.	No
RF pulse	type	Normal
Gradient		Whisper
Excitation	า	Slice-sel.
RF spoili	ng	On

 $\verb|\USER\Feinberg| lab\Alex\Coil Comparison_JT\b1map_200V_32|$

TA: 2:10	Voxel size: 3.9×3.9×5.0 mm	Rel. SNR: 1.00 USER	_ : b1map_658
Properties		M3 V32	On Off
Prio Recon	Off	V32	
Before measurement		Positioning mode	FIX
After measurement		MSMA	S - C - T
Load to viewer	On	Sagittal	R >> L
Inline movie	Off	Coronal	A >> P
Auto store images	On	Transversal	F >> H
Load to stamp segments	Off	Save uncombined	Off
Load images to graphic	Off	Coil Combine Mode	Adaptive Combine
segments	OII	AutoAlign	
Auto open inline display	Off	Auto Coil Select	Default
		Auto Con Select	Delault
Start measurement without	On	Shim mode	Tune up
further preparation	~ "	Adjust with body coil	Off
Wait for user to start	Off	Confirm freq. adjustment	Off
Start measurements	single	Assume Silicone	Off
Routine		! Ref. amplitude 1H	100.000 V
		Adjustment Tolerance	Auto
Slice group 1	40		Auto
Slices	12	Adjust volume	le constan
Dist. factor	100 %	Position	Isocenter
Position	R0.7 A30.3 F0.6	Orientation	Transversal
Orientation	Transversal	Rotation	0.00 deg
Phase enc. dir.	A >> P	R >> L	350 mm
Rotation	0.00 deg	A >> P	263 mm
FoV read	250 mm	F >> H	350 mm
FoV phase	100.0 %		
Slice thickness	5 mm	Composing	
TR	1938 ms	Sequence	
TE 1	14 ms	Contrasts	2
TE 2	14 ms	Bandwidth	_
Averages	1	Dandwidin	260.416667 Hz/Px
		T1 Compensation	Mean T1
Filter	None	Mean T1	1000.0 ms
Coil elements	B4;M2,3;T1	Angles	1
Contrast		Amplitude Weighting	Linear
Flip angle 1	90 deg	Scale Bar	Enabled
Flip angle 2	120 deg	Raw Data	Disabled
Flip angle 3	60 deg	Raw Data	Disabled
Flip angle 4	135 deg		
Flip angle 5	45 deg		
Measurements	1		
Resolution			
Base resolution	64		
Phase resolution	100 %		
Raw filter	Off		
Geometry			
Series	Interleaved		
Navigator 1			
	100 D25 9 E49 2		
Position	L0.0 P35.8 F18.2		
Orientation	Transversal		
Rotation	0.00 deg		
Base size phase	50 mm		
Base size read	50 mm		
Thickness	50 mm		
Table position	⊔		
Table position	H 0 mm		
Table position	0 mm		
Inline Composing	Off		
System			
T1	On		
M2	On		
B4	On		
i e	95	:/176	

\\USER\Feinberglab\Alex\CoilComparison_JT\gFactorMap_32

	xel size: 0.5×0.5×5.0 mm	Rel. SNR: 1.00 USER: Noise	MeasSensitivityMap
Proportion		Table position	Н
Properties Prio Recon	Off	Table position	0 mm
Before measurement	Oli	Inline Composing	Off
After measurement		System	
Load to viewer	On	T1	On
Inline movie	Off	M2	On
Auto store images	On	B4	On
Load to stamp segments	Off	M3	On
Load images to graphic	Off	V32	Off
segments	Oll		
Auto open inline display	Off	Positioning mode	FIX
Start measurement without	On	MSMA	S - C - T
further preparation	On	Sagittal	R >> L
Wait for user to start	Off	Coronal	A >> P
Start measurements	single	Transversal	F >> H
Start measurements	Sirigle	Save uncombined	Off
Routine		Coil Combine Mode	Adaptive Combine
Slice group 1		AutoAlign	
Slices	12	Auto Coil Select	Default
Dist. factor	100 %		
Position	R0.7 A30.3 F0.6	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	Off
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0.86 deg	! Ref. amplitude 1H	0.000 V
FoV read	250 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	5.0 mm	! Position	Isocenter
TR	30 ms	! Orientation	Transversal
TE	6.0 ms	! Rotation	0.00 deg
Averages	1	! R >> L	350 mm
Concatenations	12	! A >> P	263 mm
Filter	None	! F >> H	350 mm
Coil elements	B4;M2,3;T1	Physio	
Coll elements	D4,IVI2,3,11		None
Contrast		1st Signal/Mode	None
TD	0 ms	Inline	
MTC	Off	Subtract	Off
Flip angle	10 deg	Std-Dev-Sag	Off
Fat suppr.	None	Std-Dev-Cor	Off
Water suppr.	None	Std-Dev-Tra	Off
Averaging made	Chart tarm	Std-Dev-Time	Off
Averaging mode	Short term	MIP-Sag	Off
Reconstruction Measurements	Magnitude	MIP-Cor	Off
	1 Off	MIP-Tra	Off
Multiple series	Off	MIP-Time	Off
Resolution		Save original images	On
Base resolution	496		
Phase resolution	100 %	Sequence	
Phase partial Fourier	Off	Introduction	Off
Interpolation	Off	Dimension	2D
		Contrasts	1
Image Filter	Off	Bandwidth	200 Hz/Px
Distortion Corr.	Off		
Prescan Normalize	Off	Gradient mode	Fast
Normalize	Off	RF spoiling	On
B1 filter	Off	ICE program	CoilArrayUtil
Raw filter	Off	number of noise lines	384 lines
Elliptical filter	Off	Optimal SNR	On
Geometry		GFactor	_
Multi-slice mode	Sequential		On Off
Series	Ascending	Condition number	Off
Jenes		Rx coil diode switching	On O#
Special sat.	None	coil channel reordering	Off
		TX/RX Nucleus	1H

TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz

\\USER\Feinberglab\Alex\CoilComparison_JT\tSNR_32_sd1ipat2mb2_pt5mm_AV_ep2d_bold TA: 2:15 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	Custom	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments		M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation	311	MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Otal Measurements	Single	Transversal	F >> H
Routine			
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	50	AutoAlign	 D ()
Dist. factor	0 %	Auto Coil Select	Default
Position	L0.0 P66.1 F12.8	Shim mode	Standard
Orientation	Coronal	Adjust with body coil	Off
Phase enc. dir.	F >> H	Confirm freq. adjustment	On
Rotation	90.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	0.000 V
FoV read	90 mm	Adjustment Tolerance	Auto
FoV phase	88.9 %		Auto
Slice thickness	0.50 mm	Adjust volume	LO O DCC 4 E40 0
TR	5000 ms	Position	L0.0 P66.1 F12.8
TE	26.0 ms	Orientation	Coronal
		Rotation	90.00 deg
Multi-band accel. factor	2 Nana	R >> L	90 mm
Filter	None	F >> H	80 mm
Coil elements	B4;M2,3;T1	A >> P	25 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	90 deg	GLM Statistics	Off
Fat suppr.	Fat sat.		
Averaging made	Long torm	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	20	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	20
Base resolution	180	— Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	5/8	Meas[3]	Baseline
•	Off	Meas[4]	Baseline
Interpolation	OII	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	2	Meas[7]	Baseline
Ref. lines PE	36	Meas[8]	Baseline
Reference scan mode	Segmented	Meas[9]	Baseline
		Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off	Meas[12]	Active
Raw filter	On	Meas[12] Meas[13]	Active
Elliptical filter	Off		
Hamming	Off	Meas[14]	Active
G		Meas[15]	Active
Geometry		Meas[16]	Active
Multi-slice mode	Interleaved	Meas[17]	Active
Series	Interleaved	Meas[18]	Active
Selies		Meas[19]	Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Sequence	

Sequence	
Introduction	Off
Bandwidth	816 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1.43 ms
SIR accel, factor	1
EPI factor	160
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.02
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0 2
Paradigm size	1
Multiplier Stop [1]	1
Step [1] Step [2]	0
Oreh [2]	U

\\USER\Feinberglab\Alex\CoilComparison_JT\tSNR_32_sd1ipat2mb1_pt5mm_AV_ep2d_bold TA: 1:55 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	.	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation	O.I.	MSMA	S-C-T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
	Sirigic	Transversal	F >> H
Routine		Coil Combine Mode	
Slice group 1			Sum of Squares
Slices	50	Auto Cail Calant	
Dist. factor	0 %	Auto Coil Select	Default
Position	L0.0 P66.1 F12.8	Shim mode	Standard
Orientation	Coronal	Adjust with body coil	Off
Phase enc. dir.	F >> H	Confirm freq. adjustment	On
Rotation	90.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	0.000 V
FoV read	90 mm	Adjustment Tolerance	Auto
FoV phase	88.9 %	Adjust volume	rato
Slice thickness	0.50 mm	Position	L0.0 P66.1 F12.8
TR	5000 ms	Orientation	Coronal
TE	26.0 ms	Rotation	
Multi-band accel. factor	1	Rotation R >> L	90.00 deg 90 mm
Filter	None	F >> H	80 mm
Coil elements			
	B4;M2,3;T1	A >> P	25 mm
Contrast MTC	Off	Physio 1st Signal/Mode	None
Magn. preparation	None	rst Signal/Wode	none
Flip angle	90 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
	ı aı saı.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	20	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
•		Paradigm size	20
Resolution	100	— Meas[1]	Baseline
Base resolution			
Phase resolution	180	Meas[2]	Baseline
	100 %	Meas[2] Meas[3]	Baseline Baseline
Phase partial Fourier	100 % 5/8	Meas[3]	Baseline
Phase partial Fourier Interpolation	100 %	Meas[3] Meas[4]	Baseline Baseline
Interpolation	100 % 5/8 Off	Meas[3] Meas[4] Meas[5]	Baseline Baseline Baseline
Interpolation PAT mode	100 % 5/8 Off GRAPPA	Meas[3] Meas[4] Meas[5] Meas[6]	Baseline Baseline Baseline Baseline
Interpolation PAT mode Accel. factor PE	100 % 5/8 Off GRAPPA 2	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	Baseline Baseline Baseline Baseline Baseline
Interpolation PAT mode Accel. factor PE Ref. lines PE	100 % 5/8 Off GRAPPA 2 36	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Interpolation PAT mode Accel. factor PE	100 % 5/8 Off GRAPPA 2	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	100 % 5/8 Off GRAPPA 2 36 Segmented	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	100 % 5/8 Off GRAPPA 2 36 Segmented Off	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	100 % 5/8 Off GRAPPA 2 36 Segmented Off	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active Active
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active Active Active Active Active
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active
Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active Active Active Active Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction	Off
Bandwidth	816 Hz/Px
Flow comp.	No O"
Free echo spacing	Off
Echo spacing	1.43 ms
SIR accel. factor	1
EPI factor	160
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	5820 us
Slice multiplier	1
Fake MB factor for SB	1
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
FFT scale factor	0.02
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0 2
Paradigm size Multiplier	1
Step [1]	1
Step [1]	0
Otop [2]	Ŭ

\\USER\Feinberglab\Alex\CoilComparison_JT\tSNR_32_sd1ipat2mb2_pt75mm_AV_ep2d_bold TA: 1:24 PAT: 2 Voxel size: 0.7×0.8×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	T1	On
Auto store images	On	M2	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	M3	On
segments	2"	V32	Off
Auto open inline display	Off		——————————————————————————————————————
Start measurement without further preparation	On	Positioning mode	FIX
Wait for user to start	Off	MSMA Societal	S - C - T R >> L
Start measurements	single	Sagittal Coronal	A >> P
ı	Single	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	40	Auto Coil Select	Default
Dist. factor	0 %		
Position	L0.0 P64.1 F11.5	Shim mode	Standard
Orientation Phase enc. dir.	Coronal F >> H	Adjust with body coil	Off
Rotation	г >> п 90.00 deg	Confirm freq. adjustment Assume Silicone	On O#
Phase oversampling	90.00 deg 0 %	! Ref. amplitude 1H	Off 0.000 V
FoV read	90 mm	Adjustment Tolerance	Auto
FoV phase	88.3 %	Adjust volume	Auto
Slice thickness	0.75 mm	Position	L0.0 P64.1 F11.5
TR	3000 ms	Orientation	Coronal
TE	23.8 ms	Rotation	90.00 deg
Multi-band accel. factor	2	R >> L	90 mm
Filter	None	F >> H	80 mm
Coil elements	B4;M2,3;T1	A >> P	30 mm
Contrast		Physio	
	0"		
MTC	Off	1st Signal/Mode	None
MTC Magn. preparation	None		None
MTC Magn. preparation Flip angle	None 80 deg	1st Signal/Mode	None Off
MTC Magn. preparation	None	1st Signal/Mode BOLD	
MTC Magn. preparation Flip angle Fat suppr. Averaging mode	None 80 deg Fat sat. Long term	1st Signal/Mode BOLD GLM Statistics	Off
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction	None 80 deg Fat sat. Long term Magnitude	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition	Off Off 0 0
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements	None 80 deg Fat sat. Long term Magnitude 20	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states	Off Off 0 0 On
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR	None 80 deg Fat sat. Long term Magnitude 20 0 ms	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter	Off Off 0 0 On On
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements	None 80 deg Fat sat. Long term Magnitude 20	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold	Off Off 0 0 On On 4.00
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR	None 80 deg Fat sat. Long term Magnitude 20 0 ms	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size	Off Off 0 0 On On 4.00 20
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1]	Off Off 0 0 0 On On 4.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2]	Off Off Off 0 0 On On 4.00 20 Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3]	Off Off Off 0 0 On On 4.00 20 Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4]	Off Off Off O O O O A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	Off Off Off O O O O A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6]	Off Off Off O O O O A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	Off Off Off O O O O A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	Off Off Off O O O O O A.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	Off Off Off O O O O O A.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	Off Off Off O O O O O A.00 20 Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Off Off Off O O O O O A.00 20 Baseline Bateline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13]	Off Off Off O O O O O A.00 20 Baseline Active Active Active
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[11] Meas[12] Meas[13] Meas[13] Meas[14]	Off Off Off O O O O O A.00 20 Baseline Bateline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15]	Off Off Off O O O O O A.00 20 Baseline Bateline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[15] Meas[15] Meas[15] Meas[15] Meas[15] Meas[16]	Off Off Off O O O O O A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off Off Off Interleaved	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[15] Meas[15] Meas[15] Meas[15] Meas[16] Meas[17]	Off Off Off O O O O O O A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active
MTC Magn. preparation Flip angle Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	None 80 deg Fat sat. Long term Magnitude 20 0 ms Off 120 100 % 5/8 Off GRAPPA 2 36 Segmented Off Off On Off	1st Signal/Mode BOLD GLM Statistics Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[15] Meas[15] Meas[15] Meas[15] Meas[15] Meas[16]	Off Off Off O O O O O A.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline

Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Sequence	

	0"
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 816 Hz/Px No Off 1.41 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 106 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 0 1/FoV 0 0 0 0 1 0 0 O O O O O O O O O O O O O

\\USER\Feinberglab\Alex\CoilComparison_JT\tSNR_32_sd1ipat2mb1_pt75mm_AV_ep2d_bold TA: 1:12 PAT: 2 Voxel size: 0.7×0.8×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	T1	0.5
Auto store images	On		On
Load to stamp segments	Off	M2 B4	On
Load images to graphic	Off		On
segments		M3	On O#
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
1	•	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	40	Auto Coil Select	Default
Dist. factor	0 %		
Position	L0.0 P64.1 F11.5	Shim mode	Standard
Orientation	Coronal	Adjust with body coil	Off
Phase enc. dir.	F >> H	Confirm freq. adjustment	On
Rotation	90.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	0.000 V
FoV read	90 mm	Adjustment Tolerance	Auto
FoV phase	88.3 %	Adjust volume	
Slice thickness	0.75 mm	Position	L0.0 P64.1 F11.5
TR	3000 ms	Orientation	Coronal
TE	23.8 ms	Rotation	90.00 deg
Multi-band accel. factor	1	R >> L	90 mm
Filter	None	F >> H	80 mm
Coil elements	B4;M2,3;T1	A >> P	30 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	I st Signal/Mode	none
Flip angle	80 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
i at suppi.	ı at sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	20	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Decelution		Paradigm size	20
Resolution	400	Meas[1]	Baseline
Base resolution	120	Meas[2]	Baseline
Phase resolution	100 %	Meas[3]	Baseline
Phase partial Fourier	5/8	Meas[4]	Baseline
Interpolation	Off	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	2	Meas[7]	Baseline
Ref. lines PE	36	Meas[8]	Baseline
Reference scan mode	Segmented	Meas[9]	Baseline
		Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off	Meas[12]	Active
Raw filter	On	Meas[13]	Active
Elliptical filter	Off	Meas[13] Meas[14]	Active
Hamming	Off	Meas[14] Meas[15]	Active
•		I IVICUOLIUI	, 10tivo
Geometry			Active
Geometry Multi slice mode	Interlogued	Meas[16]	Active
Multi-slice mode	Interleaved	Meas[16] Meas[17]	Active
	Interleaved Interleaved	Meas[16]	

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing	Off 816 Hz/Px No Off
Echo spacing	1.37 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 106 Normal Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 1 0 1 0 Off Off Off Off Off

\\USER\Feinberglab\Alex\CoilComparison_JT\tSNR_32_sd1ipat2mb2_1mm_AV_ep2d_bold TA: 1:12 PAT: Off Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Inline Composing	Off
Prio Recon	Off	System	
Before measurement	Oii	T1	On
After measurement		M2	On
Load to viewer	On	B4	On
Inline movie	Off	M3	On
	-	V32	Off
Auto store images	On Off	V 32	OII
Load to stamp segments	Off	Positioning mode	FIX
Load images to graphic	Off	MSMA	S - C - T
segments	~ "	Sagittal	R >> L
Auto open inline display	Off	Coronal	A >> P
Start measurement without	On	Transversal	F >> H
further preparation		Coil Combine Mode	Sum of Squares
Wait for user to start	Off	AutoAlign	
Start measurements	single	Auto Coil Select	Default
Routine		- Shim mode	Standard
Slice group 1		Adjust with body coil	Off
Slices	30	Confirm freq. adjustment	On
Dist. factor	0 %	Assume Silicone	Off
Position	L0.0 P65.4 F10.8	! Ref. amplitude 1H	0.000 V
Orientation	Coronal	Adjustment Tolerance	Auto
Phase enc. dir.	F >> H	Adjust volume	, luio
Rotation	90.00 deg	Position	L0.0 P65.4 F10.8
Phase oversampling	0 %	Orientation	Coronal
FoV read	90 mm	Rotation	90.00 deg
FoV phase	80.0 %	R >> L	90.00 deg 90 mm
Slice thickness	1.00 mm		
TR	3000 ms	F >> H	72 mm
TE	22.6 ms	A >> P	30 mm
Multi-band accel. factor	2	Physio	
Filter	None	1st Signal/Mode	None
Coil elements	B4;M2,3;T1	1	
Contrast		BOLD GLM Statistics	Off
MTC	Off		Off
Magn. preparation	None	Dynamic t-maps	
Flip angle	80 deg	Starting ignore meas	0
	Fat sat.	Ignore after transition	0
Fat suppr.	ı al əal.	Model transition states	On
Averaging mode	Long term	Temp. highpass filter	On 4.00
Reconstruction	Magnitude	Threshold	4.00
Measurements	20	Paradigm size	20
Delay in TR	0 ms	Meas[1]	Baseline
Multiple series	Off	Meas[2]	Baseline
1		Meas[3]	Baseline
Resolution		Meas[4]	Baseline
Base resolution	90	Meas[5]	Baseline
Phase resolution	100 %	Meas[6]	Baseline
Phase partial Fourier	5/8	Meas[7]	Baseline
Interpolation	Off	Meas[8]	Baseline
	None	Meas[9]	Baseline
PAT mode	None	Meas[10]	Baseline
Distortion Corr.			A atius
DISTOLLION COIT.	Off	Meas[11]	Active
Prescan Normalize		Meas[11] Meas[12]	Active
	Off		
Prescan Normalize Raw filter	Off On	Meas[12] Meas[13]	Active
Prescan Normalize Raw filter Elliptical filter	Off On Off	Meas[12] Meas[13] Meas[14]	Active Active
Prescan Normalize Raw filter Elliptical filter Hamming	Off On	Meas[12] Meas[13] Meas[14] Meas[15]	Active Active Active
Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Off On Off Off	Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Active Active Active Active Active Active
Prescan Normalize Raw filter Elliptical filter Hamming	Off On Off Off	Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17]	Active Active Active Active Active Active Active
Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Off On Off Off Interleaved Interleaved	Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[18]	Active Active Active Active Active Active Active Active Active
Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode Series	Off On Off Off Off Interleaved Interleaved	Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[18] Meas[19]	Active
Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode	Off On Off Off Interleaved Interleaved	Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[18] Meas[19] Meas[20]	Active
Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode Series Special sat.	Off On Off Off Off Interleaved Interleaved None	Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[18] Meas[19] Meas[20] Motion correction	Active Off
Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode Series	Off On Off Off Off Interleaved Interleaved	Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17] Meas[18] Meas[19] Meas[20]	Active

Sequence

Introduction	Off
Bandwidth	816 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1.37 ms
SIR accel, factor	1
EPI factor	72
Gradient mode	Normal
RF spoiling	Off
Kr spoiling	OII
Excite pulse duration	5820 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.02
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	<u>-</u> 1
Step [1]	1
Step [2]	0
I <u>-</u> 1	-

\\USER\Feinberglab\Alex\CoilComparison_JT\tSNR_32_sd1ipat2mb1_1mm_AV_ep2d_bold TA: 1:06 PAT: Off Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Dranartias		Inline Composing	Off
Properties	0"	1	
Prio Recon	Off	System	
Before measurement		T1	On
After measurement	0	M2	On
Load to viewer	On Off	B4	On
Inline movie	Off	M3	On
Auto store images	On	V32	Off
Load to stamp segments	Off	Positioning mode	FIX
Load images to graphic	Off	MSMA	S - C - T
segments		Sagittal	R >> L
Auto open inline display	Off	Coronal	A >> P
Start measurement without	On	Transversal	F >> H
further preparation		Coil Combine Mode	Sum of Squares
Wait for user to start	Off	AutoAlign	
Start measurements	single	Auto Coil Select	 Default
Routine			
Slice group 1		- Shim mode	Standard
Slices	30	Adjust with body coil	Off
Dist. factor	0 %	Confirm freq. adjustment	On O"
Position	L0.0 P65.4 F10.8	Assume Silicone	Off
Orientation	Coronal	! Ref. amplitude 1H	0.000 V
Phase enc. dir.	F >> H	Adjustment Tolerance	Auto
Rotation	90.00 deg	Adjust volume	
Phase oversampling	0 %	Position	L0.0 P65.4 F10.8
FoV read	90 mm	Orientation	Coronal
FoV phase	80.0 %	Rotation	90.00 deg
Slice thickness	1.00 mm	R >> L	90 mm
TR	3000 ms	F >> H	72 mm
TE TE	22.6 ms	A >> P	30 mm
Multi-band accel. factor	22.0 ms 1	Dhysis	
Filter	None	Physio	Mana
		1st Signal/Mode	None
Coil elements	B4;M2,3;T1	BOLD	
Contrast		GLM Statistics	Off
MTC	Off	Dynamic t-maps	Off
Magn. preparation	None	Starting ignore meas	0
Flip angle	80 deg	Ignore after transition	0
Fat suppr.	Fat sat.	Model transition states	On
		Temp. highpass filter	On
Averaging mode	Long term	Threshold	4.00
Reconstruction	Magnitude	Paradigm size	20
Measurements	20	Meas[1]	Baseline
Delay in TR	0 ms	Meas[2]	Baseline
Multiple series	Off	Meas[2]	Baseline
Resolution		Meas[3]	Baseline
Base resolution	90	_ Meas[4] Meas[5]	Baseline
Phase resolution	100 %	Meas[6]	Baseline
			Baseline
Phase partial Fourier	5/8 Off	Meas[7]	
Interpolation	Off	Meas[8]	Baseline
PAT mode	None	Meas[9]	Baseline
		Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off	Meas[12]	Active
Raw filter	On	Meas[13]	Active
Elliptical filter	Off	Meas[14]	Active
Hamming	Off	Meas[15]	Active
Geometry		Meas[16]	Active
Multi-slice mode	Interleaved	_ Meas[17]	Active
		Meas[18]	Active
Series	Interleaved	Meas[19]	Active
Special sat.	None	Meas[20]	Active
		Motion correction	Off
Table position	Н	Spatial filter	Off
Table position	0 mm	·	
•		98/176	

Sequence

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 816 Hz/Px No Off 1.33 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 72 Normal Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 1 0 1 0 0 Off Off Off Off Off Off Off Off 2 0 0 0 0 0 1 1 1 1 1 0

\\USER\Feinberglab\Alex\CoilComparison_JT\visLoc_32ch_sd1ipat2mb2_pt5mm_AV_ep2d_bold TA: 3:33 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

ff ff ff ff ff ff ff ff n ff ff n ff n ff n ff no J. 4 P45.2 F6.3 pronal >> H 0.00 deg	Table position Table position Inline Composing System T1 M2 B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil	H 0 mm Off On On On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default Standard
n ff n ff ff ff n ff ngle) % 1.4 P45.2 F6.3 pronal >> H	Table position Inline Composing System T1 M2 B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	O mm Off On On On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default
ff n ff	System T1 M2 B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	Off On On On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default
ff n ff	System T1 M2 B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	On On On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default
ff n ff	T1 M2 B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	On On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default
n ff ff ff ff n ff ngle 	M2 B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	On On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default
ff ff ff ff n ff ngle 0 % 1.4 P45.2 F6.3 bronal >> H	B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default
ff ff n ff nngle 0 % 1.4 P45.2 F6.3 pronal >> H	M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default
ff n ff ngle) % I.4 P45.2 F6.3 pronal >> H	V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	FIX S - C - T R >> L A >> P F >> H Sum of Squares Default
n ff ngle 0 % I.4 P45.2 F6.3 pronal >> H	Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	FIX S - C - T R >> L A >> P F >> H Sum of Squares Default
n ff ngle 0 % I.4 P45.2 F6.3 pronal >> H	MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	S - C - T R >> L A >> P F >> H Sum of Squares Default
ff ngle) % I.4 P45.2 F6.3 oronal >> H	MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	S - C - T R >> L A >> P F >> H Sum of Squares Default
ngle) % 1.4 P45.2 F6.3 pronal >> H	Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	R >> L A >> P F >> H Sum of Squares Default
ngle) % 1.4 P45.2 F6.3 pronal >> H	Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	A >> P F >> H Sum of Squares Default
) % I.4 P45.2 F6.3 oronal >> H	Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode	F >> H Sum of Squares Default
% I.4 P45.2 F6.3 oronal >> H	Coil Combine Mode AutoAlign Auto Coil Select Shim mode	Sum of Squares Default
% I.4 P45.2 F6.3 oronal >> H	AutoAlign Auto Coil Select Shim mode	 Default
% I.4 P45.2 F6.3 oronal >> H	Auto Coil Select Shim mode	
% I.4 P45.2 F6.3 oronal >> H	Shim mode	
l.4 P45.2 F6.3 oronal >> H		Standard
oronal >> H		
>> H	, MINOL WILLI DUUV UUI	Off
	Confirm freq. adjustment	On
noo aog	Assume Silicone	Off
%	! Ref. amplitude 1H	0.000 V
		Auto
		Auto
		14 4 D45 0 50 0
		L1.4 P45.2 F6.3
		Coronal
).U IIIS		90.00 deg
000		90 mm
		80 mm
4;IVIZ,3; I I	I	30 mm
	=	
ff	1st Signal/Mode	None
	ROLD	
•		On
at sat.		Off
ang term		0
•		0
-		On
		On
11		4.00
		12
30		Active
00 %		Active
8	= =	Active
ff		Active
		Active
RAPPA		Active
		Baseline
3	Meas[8]	Baseline
egmented	Meas[9]	Baseline
ff	Meas[10]	Baseline
	Meas[11]	Baseline
	Meas[12]	Baseline
	Motion correction	Off
	Spatial filter	Off
II	Sequence	
		Off
terleaved		816 Hz/Px
terleaved		No
8506 C4 FC0 a Das Srf BOS ff fr ff	one oldeg oldeg old deg old sat. ong term agnitude old	Adjust volume Position Orientation Rotation R >> L F >> H A >> P Physio Ist Signal/Mode Position Orientation R >> P Physio Ist Signal/Mode Rotation Rotation R >> P Rotation Rotation R >> H Rotation Rotation Rotation Rotation Rotation Rotation R >> H Rotation Rotation Rotation Rotation R >> H Rotation Rota

Free echo spacing	Off
Echo spacing	1.43 ms
SIR accel. factor	1
EPI factor	160
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 0 1/FoV 0 0 0 0 1 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\CoilComparison_JT\visLoc_32ch_sd1ipat2mb2_pt5mm_AV_ep2d_bold TA: 3:33 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On		
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	OII	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Desitioning and	FIV
	On	Positioning mode	FIX
further preparation	0#	MSMA	S-C-T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	60	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	u % L1.4 P45.2 F6.3	Chim was de	Ctandard
	Coronal	Shim mode	Standard
Orientation		Adjust with body coil	Off
Phase enc. dir.	F >> H	Confirm freq. adjustment	On
Rotation	90.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	0.000 V
FoV read	90 mm	Adjustment Tolerance	Auto
FoV phase	88.9 %	Adjust volume	
Slice thickness	0.50 mm	Position	L1.4 P45.2 F6.3
TR	3000 ms	Orientation	Coronal
TE	26.0 ms	Rotation	90.00 deg
Multi-band accel. factor	2	R >> L	90 mm
Filter	None	F >> H	80 mm
Coil elements	B4;M2,3;T1	A >> P	30 mm
Contrast	_ ',,.'	Physio	00 111111
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	13t Signal/Mode	None
Flip angle	80 deg	BOLD	
	Fat sat.	GLM Statistics	On
Fat suppr.	Fal Sal.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	63	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
	5 11	Paradigm size	12
Resolution		_	Active
Base resolution	180	- Meas[1]	
Phase resolution	100 %	Meas[2]	Active
Phase partial Fourier	5/8	Meas[3]	Active
Interpolation	Off	Meas[4]	Active
		Meas[5]	Active
PAT mode	GRAPPA	Meas[6]	Active
Accel. factor PE	2	Meas[7]	Baseline
Ref. lines PE	36	Meas[8]	Baseline
Reference scan mode	Segmented	Meas[9]	Baseline
Distortion Corr	O#	Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Baseline
Prescan Normalize	Off	Meas[12]	Baseline
Raw filter	On	Motion correction	Off
Elliptical filter	Off	Spatial filter	Off
Hamming	Off	Sequence	
Geometry			Off
Multi-slice mode	Interleaved	Introduction Bandwidth	Oπ 816 Hz/Px
		i Daliuwillii	
Series	Interleaved	Flow comp.	No

Free echo spacing	Off
Echo spacing	1.43 ms
SIR accel. factor	1
EPI factor	160
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 0 1/FoV 0 0 0 0 1 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\CoilComparison_JT\visLoc_32ch_sd1ipat2mb2_pt5mm_AV_ep2d_bold TA: 3:33 PAT: 2 Voxel size: 0.5×0.5×0.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On		
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	OII	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Desitioning and	FIV
	On	Positioning mode	FIX
further preparation	0#	MSMA	S-C-T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	60	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	u % L1.4 P45.2 F6.3	Chim was de	Ctandard
	Coronal	Shim mode	Standard
Orientation		Adjust with body coil	Off
Phase enc. dir.	F >> H	Confirm freq. adjustment	On
Rotation	90.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	0.000 V
FoV read	90 mm	Adjustment Tolerance	Auto
FoV phase	88.9 %	Adjust volume	
Slice thickness	0.50 mm	Position	L1.4 P45.2 F6.3
TR	3000 ms	Orientation	Coronal
TE	26.0 ms	Rotation	90.00 deg
Multi-band accel. factor	2	R >> L	90 mm
Filter	None	F >> H	80 mm
Coil elements	B4;M2,3;T1	A >> P	30 mm
Contrast	_ ',,.'	Physio	00 111111
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	13t Signal/Mode	None
Flip angle	80 deg	BOLD	
	Fat sat.	GLM Statistics	On
Fat suppr.	Fal Sal.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	63	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
	5 11	Paradigm size	12
Resolution		_	Active
Base resolution	180	- Meas[1]	
Phase resolution	100 %	Meas[2]	Active
Phase partial Fourier	5/8	Meas[3]	Active
Interpolation	Off	Meas[4]	Active
		Meas[5]	Active
PAT mode	GRAPPA	Meas[6]	Active
Accel. factor PE	2	Meas[7]	Baseline
Ref. lines PE	36	Meas[8]	Baseline
Reference scan mode	Segmented	Meas[9]	Baseline
Distortion Corr	O#	Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Baseline
Prescan Normalize	Off	Meas[12]	Baseline
Raw filter	On	Motion correction	Off
Elliptical filter	Off	Spatial filter	Off
Hamming	Off	Sequence	
Geometry			Off
Multi-slice mode	Interleaved	Introduction Bandwidth	Oπ 816 Hz/Px
		i Daliuwillii	
Series	Interleaved	Flow comp.	No

Free echo spacing	Off
Echo spacing	1.43 ms
SIR accel. factor	1
EPI factor	160
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	5820 us 1 0 1/FoV 0 0 0 0 1 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\CoilComparison_JT\visLoc_32_sd1ipat2mb1_pt75mm_AV_ep2d_bold TA: 3:21 PAT: 2 Voxel size: 0.7×0.8×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	T1	On
Auto store images	On	M2	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	M3	On
segments	0"	V32	Off
Auto open inline display	Off		
Start measurement without	On	Positioning mode	FIX
further preparation Wait for user to start	Off	MSMA	S-C-T
Start measurements	single	Sagittal Coronal	R >> L A >> P
Start measurements	Sirigie	Transversal	A >> P F >> H
Routine		- Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	40	Auto Coil Select	Default
Dist. factor	0 %		
Position	L3.4 P45.8 F11.0	Shim mode	Standard
Orientation	Coronal	Adjust with body coil	Off
Phase enc. dir.	F >> H	Confirm freq. adjustment	On Off
Rotation Phase oversampling	90.00 deg 0 %	Assume Silicone	Off 0.000 V
FoV read	90 mm	! Ref. amplitude 1H	
FoV phase	88.3 %	Adjustment Tolerance Adjust volume	Auto
Slice thickness	0.75 mm	Position	L3.4 P45.8 F11.0
TR	3000 ms	Orientation	Coronal
TE	23.2 ms	Rotation	90.00 deg
Multi-band accel. factor	1	R >> L	90 mm
Filter	None	F >> H	80 mm
Coil elements	B4;M2,3;T1	A >> P	30 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	80 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	63	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	20
Base resolution	120	- Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	5/8	Meas[3]	Baseline
Interpolation	Off	Meas[4]	Baseline
DAT mode	CDADDA	Meas[5]	Baseline Baseline
PAT mode Accel. factor PE	GRAPPA 2	Meas[6] Meas[7]	Baseline Baseline
Ref. lines PE	36	Meas[8]	Baseline
Reference scan mode	Segmented	Meas[9]	Baseline
		Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off	Meas[12]	Active
Raw filter	On Off	Meas[13]	Active
Elliptical filter	Off Off	Meas[14]	Active
Hamming	Off	Meas[15]	Active
Geometry		Meas[16]	Active
Multi-slice mode	Interleaved	Meas[17]	Active
Series	Interleaved	Meas[18]	Active
I .			
		Meas[19]	Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Introduction Bandwidth Ban	Sequence	
Flow comp. Free echo spacing Cho spacing C		= ::
Free echo spacing Echo spacing 1.37 ms SIR accel. factor EPI factor Gradient mode RF spoiling Off Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor Starting ignore meas Paradigm size Multiplier Step [1] 106 107 108 108 109 109 109 109 109 109 109 109 109 109		
SIR accel. factor 1 EPI factor 106 Gradient mode Normal RF spoiling Off Excite pulse duration 5820 us Slice multiplier 1 Fake MB factor for SB 1 No. of interleaved TEs 0 RF pulse shape 1 EPI noise scans 0 EPI full reference scan 0 SENSE1 coil combine Off Log physiology to file Off Invert RO/PE polarity Off Save reduced raw data Off Readout slice trace Off Disable ramp sampling Off PF omits higher k-space Off FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1]	•	· · ·
SIR accel. factor 1 EPI factor 106 Gradient mode Normal RF spoiling Off Excite pulse duration 5820 us Slice multiplier 1 Fake MB factor for SB 1 No. of interleaved TEs 0 RF pulse shape 1 EPI noise scans 0 EPI full reference scan 0 SENSE1 coil combine Off Log physiology to file Off Invert RO/PE polarity Off Save reduced raw data Off Readout slice trace Off Disable ramp sampling Off PF omits higher k-space Off FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1]		_
EPI factor 106 Gradient mode Normal RF spoiling Off Excite pulse duration 5820 us Slice multiplier 1 Fake MB factor for SB 1 No. of interleaved TEs 0 RF pulse shape 1 EPI noise scans 0 EPI full reference scan 0 SENSE1 coil combine Off Log physiology to file Off Invert RO/PE polarity Off Save reduced raw data Off Readout slice trace Off Disable ramp sampling Off PF omits higher k-space Off FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1]	Echo spacing	1.37 IIIS
Gradient mode RF spoiling Off Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TES RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling Off PF omits higher k-space FFT scale factor Starting ignore meas Paradigm size Step [1] Normal Normal Normal Off 5820 us S820 us 5820 us 6820 us 682	SIR accel. factor	1
RF spoiling Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TES RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling Off PF omits higher k-space FFT scale factor Starting ignore meas Paradigm size Step [1] S820 us S820 us S820 us CRE20 us CRE2		
Excite pulse duration 5820 us Slice multiplier 1 Fake MB factor for SB 1 No. of interleaved TES 0 RF pulse shape 1 EPI noise scans 0 EPI full reference scan 0 SENSE1 coil combine Off Log physiology to file Off Invert RO/PE polarity Off Save reduced raw data Off Readout slice trace Off Disable ramp sampling Off PF omits higher k-space Off FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1]		
Slice multiplier 1 Fake MB factor for SB 1 No. of interleaved TES 0 RF pulse shape 1 EPI noise scans 0 EPI full reference scan 0 SENSE1 coil combine Off Log physiology to file Off Invert RO/PE polarity Off Save reduced raw data Off Readout slice trace Off Disable ramp sampling Off PF omits higher k-space Off FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1]	RF spoiling	Off
Slice multiplier 1 Fake MB factor for SB 1 No. of interleaved TES 0 RF pulse shape 1 EPI noise scans 0 EPI full reference scan 0 SENSE1 coil combine Off Log physiology to file Off Invert RO/PE polarity Off Save reduced raw data Off Readout slice trace Off Disable ramp sampling Off PF omits higher k-space Off FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1]	Excite pulse duration	5820 us
No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling Off PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] O O O O O O O O O O O O O		1
RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling Off PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] 1	Fake MB factor for SB	1
EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling Off PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Off Off Off Never Standard Starting ignore meas Paradigm size Multiplier Step [1]	No. of interleaved TEs	0
EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling Off PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Off Off Off Off Never Standard Starting ignore meas O Paradigm size Step [1]		1
SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling Off PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Off Off Disable ramp sampling Off PF omits higher k-space Off FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas O Paradigm size 1		·
Log physiology to file Invert RO/PE polarity Save reduced raw data General Save reduced raw data Off Readout slice trace Disable ramp sampling Off PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Off Step Starting Off		•
Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling Off PF omits higher k-space FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Step [1] Off Off Disable ramp sampling Off PF omits higher k-space Off FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas O Paradigm size 1		= ::
Save reduced raw data Off Readout slice trace Off Disable ramp sampling Off PF omits higher k-space Off FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1] 1		_
Readout slice trace Off Disable ramp sampling Off PF omits higher k-space Off FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1] 1		_
Disable ramp sampling Off PF omits higher k-space Off FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1] 1		= ::
PF omits higher k-space Off FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1] 1		
FFT scale factor 0.02 Send B1 shim trigger Never Triggering scheme Standard Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1] 1		_
Send B1 shim trigger Triggering scheme Standard Starting ignore meas Paradigm size Multiplier Step [1] Send B1 shim trigger Never Standard Standard 1 Standard 1 Standard 1		= ::
Triggering scheme Standard Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1] 1		*.*=
Starting ignore meas 0 Paradigm size 2 Multiplier 1 Step [1] 1		Standard
Multiplier 1 Step [1] 1		0
Step [1] 1	Paradigm size	2
	Multiplier	1
Step [2] 0		1
	Step [2]	0

 $\verb|\USER\Fe| in berglab\Alex\Auditory_Potential Scans\| localizer_200V_nova| |$

TA: 0:27 P/	AT: Off Voxel size: 1.2×	1.1×3.0 mm Rel. SNR: 1.00	SIEMENS: gre
Properties		Phase resolution	90 %
Properties Prio Recon	Off	Phase partial Fourier	6/8
Prio Recon Before measurement	OII	Interpolation	On
After measurement		PAT mode	None
Load to viewer	On		
Inline movie	Off	Image Filter	Off
Auto store images	On	Distortion Corr.	Off
Load to stamp segments	Off	Prescan Normalize	Off
Load images to graphic	Off	Normalize	Off
segments		B1 filter	Off
Auto open inline display	Off	Raw filter	Off
Start measurement without	On	Elliptical filter	Off
further preparation		Geometry	
Wait for user to start	Off	Multi-slice mode	Sequential
Start measurements	single	Series	Interleaved
Routine Slice group 1		Saturation mode	Standard
Slice group 1 Slices	5	Special sat.	None
Slices Dist. factor	5 500 %	Table W	
Dist. factor Position	500 % Isocenter	Table position	H 0 mm
Position Orientation		Table position	0 mm
Orientation Phase enc. dir.	Sagittal A >> P	Inline Composing	Off
Phase enc. dir. Rotation	A >> P 0.00 deg	Tim CT mode	Off
Slice group 2	c.co dog	ı	
Slice group 2 Slices	5	System	0.5
Silices Dist. factor	5 20 %	T1	On On
Position	20 % Isocenter	M2	On On
Orientation	Coronal	B4	On On
Phase enc. dir.	Coronal R >> L	M3	On Off
Rotation	0.00 deg	V32	Off
Slice group 3		Positioning mode	FIX
Slice group 3 Slices	5	MSMA	S-C-T
Dist. factor	5 20 %	Sagittal	R >> L
Position	Isocenter	Coronal	A >> P
Orientation	Transversal	Transversal	F >> H
Phase enc. dir.	A >> P	Save uncombined	On
Rotation	0.00 deg	Coil Combine Mode	Sum of Squares
Phase oversampling	0.00 deg 0 %	AutoAlign	
FoV read	280 mm	Auto Coil Select	Off
FoV phase	100.0 %	Chim mada	Tuno un
Slice thickness	3.0 mm	Shim mode	Tune up
TR	10.0 ms	Adjust with body coil Confirm freq. adjustment	Off Off
TE	3.00 ms	Confirm freq. adjustment Assume Silicone	Off Off
Averages	1	Assume Silicone ! Ref. amplitude 1H	Off 200.000 V
Concatenations	15	! Ref. amplitude 1H Adjustment Tolerance	200.000 V Auto
Filter	None	Adjustment Tolerance Adjust volume	/TUIU
Coil elements	B4;M2,3;T1	Adjust volume Position	Isocenter
	•	Position Orientation	Isocenter Transversal
Contrast	0 ms	Orientation Rotation	
TD MTC	0 ms	Rotation R >> L	0.00 deg 350 mm
MTC Magn preparation	Off None	R >> L A >> P	350 mm 263 mm
Magn. preparation	None	A >> P F >> H	263 mm 350 mm
Flip angle	10 deg	ļ	JOO HIIII
Fat suppr.	None	Physio	
Water suppr.	None Off	1st Signal/Mode	None
SWI	Off	Segments	1
Averaging mode	Short term		·
Reconstruction	Magnitude	Tagging	None
Measurements	1	Dark blood	Off
Multiple series	Each measurement	Resp. control	Off
•	, a.s.w. omorit	1	
Resolution	050	Inline	0"
Base resolution	256	Subtract	Off

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	320 Hz/Px
Flow comp.	No
 RF pulse type	Normal
Gradient mode	Whisper
Excitation	Slice-sel.
RF spoiling	On

\\USER\Feinberglab\Alex\Auditory_PotentialScans\b1map_200V_32

TA: 2:10	Voxel size: 3.9×3.9×5.0 mm	Rel. SNR: 1.00 USER	_ : b1map_658
Properties		M3 V32	On Off
Prio Recon	Off	V32	OII
Before measurement		Positioning mode	FIX
After measurement		MSMA	S - C - T
Load to viewer	On	Sagittal	R >> L
Inline movie	Off	Coronal	A >> P
Auto store images	On	Transversal	F >> H
Load to stamp segments	Off	Save uncombined	Off
Load images to graphic	Off	Coil Combine Mode	Adaptive Combine
segments		AutoAlign	
Auto open inline display	Off	Auto Coil Select	Default
Start measurement without	On	Chim made	Tuno un
further preparation		Shim mode	Tune up
Wait for user to start	Off	Adjust with body coil	Off Off
Start measurements	single	Confirm freq. adjustment	
Pouting		Assume Silicone	Off
Routine		! Ref. amplitude 1H	200.000 V
Slice group 1	40	Adjustment Tolerance	Auto
Slices	12	Adjust volume	laggantar
Dist. factor	100 %	Position	Isocenter
Position	R0.7 A30.3 F0.6	Orientation	Transversal
Orientation	Transversal	Rotation	0.00 deg
Phase enc. dir.	A >> P	R >> L	350 mm
Rotation	0.00 deg	A >> P	263 mm
FoV read	250 mm	F >> H	350 mm
FoV phase	100.0 %	Composing	
Slice thickness TR	5 mm		
TE 1	1938 ms 14 ms	Sequence	
TE 2		Contrasts	2
Averages	14 ms 1	Bandwidth	260.416667 Hz/Px
Filter	None	T1 Compensation	Mean T1
Coil elements	B4;M2,3;T1	Mean T1	1000.0 ms
Con elements	D4,1V12,3,1 1	Angles	1
Contrast		Amplitude Weighting	Linear
Flip angle 1	90 deg	Scale Bar	Enabled
Flip angle 2	120 deg	Raw Data	Disabled
Flip angle 3	60 deg	'	
Flip angle 4	135 deg		
Flip angle 5	45 deg		
Measurements	1		
Resolution			
Base resolution	64		
Phase resolution	100 %		
Raw filter	Off		
ı	Oli		
Geometry Series	Interleaved		
Navigator 1	100 B05 0 540 0		
Position	L0.0 P35.8 F18.2		
Orientation	Transversal		
Rotation	0.00 deg		
Base size phase	50 mm		
Base size read	50 mm		
Thickness	50 mm		
Table position	Н		
Table position	0 mm		
Inline Composing	Off		
System			
T1	On		
M2	On		
B4	On	0/176	
	11/	V1.76	

 $\verb|\USER|Feinberg| lab| A lex| Auditory_Potential Scans| mp2 rage_1 mm_TR4000| label{label} lab$

TA: 5:26 PAT: 3	Voxel size: 1.0×1.0×1.0 mm	. •	mp2rage_wip602B
Proportion		Image Filter	Off
Properties		Distortion Corr.	Off
Prio Recon	Off	Prescan Normalize	Off
Before measurement		Normalize	Off
After measurement		B1 filter	Off
Load to viewer	On	Raw filter	Off
Inline movie	Off	Elliptical filter	Off
Auto store images	On	Emplical filter	Oli
Load to stamp segments	Off	Geometry	
Load images to graphic	Off	Multi-slice mode	Single shot
segments		Series	Interleaved
Auto open inline display	Off		
Start measurement without	On	Table position	Н
further preparation	011		
Wait for user to start	On	Table position	0 mm
		Inline Composing	Off
Start measurements	single	System	
Routine		T1	On
Slab group 1		M2	On
Slabs	1		
		B4	On
Dist. factor	50 %	M3	On
Position	L1.9 A29.6 F31.5	V32	Off
Orientation	Sagittal	Positioning mode	FIX
Phase enc. dir.	H >> F		S - C - T
Rotation	90.00 deg	MSMA	
Phase oversampling	0 %	Sagittal	R >> L
Slice oversampling	11.1 %	Coronal	A >> P
Slices per slab	144	Transversal	F >> H
FoV read	200 mm	Save uncombined	Off
FoV phase	90.6 %	Coil Combine Mode	Adaptive Combine
Slice thickness	1.00 mm	AutoAlign	
	4000 ms	Auto Coil Select	Default
TR			
TE	3.23 ms	Shim mode	Standard
Averages	1	Adjust with body coil	Off
Concatenations	1	Confirm freq. adjustment	Off
Filter	None	Assume Silicone	Off
Coil elements	B4;M2,3;T1	! Ref. amplitude 1H	240.000 V
Contract		Adjustment Tolerance	Auto
Contrast		Adjust volume	71010
Magn. preparation	Non-sel. IR	! Position	L1.9 A24.9 F9.3
TI 1	1000 ms		
TI 2	3200 ms	! Orientation	Sagittal
Flip angle 1	4 deg	! Rotation	0.00 deg
Flip angle 2	4 deg	! F >> H	108 mm
Fat suppr.	Water excit. fast	! A >> P	160 mm
Water suppr.	None	! R >> L	127 mm
2nd Inversion-Contrast	On	Physio	
			N
Averaging mode	Long term	1st Signal/Mode	None
Reconstruction	Magnitude	Dark blood	Off
Measurements	1		
Multiple series	Each measurement	Resp. control	Off
	Edon moded of for	•	
Resolution		Inline	0#
Base resolution	192	Subtract	Off
Phase resolution	100 %	Std-Dev-Sag	Off
Slice resolution	100 %	Std-Dev-Cor	Off
Phase partial Fourier	Off	Std-Dev-Tra	Off
Slice partial Fourier	6/8	Std-Dev-Time	Off
Interpolation	Off	MIP-Sag	Off
		MIP-Cor	Off
PAT mode	GRAPPA	MIP-Tra	Off
Accel. factor PE	3	MIP-Time	Off
Ref. lines PE	36	Save original images	On
Accel. factor 3D	1		
Reference scan mode	Integrated	Coguence	
. 10.0.0.00 00011 111000	ogratou	Sequence	

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Off
Contrasts	1
Bandwidth	200 Hz/Px
Flow comp.	Slice
Echo spacing	7.8 ms
RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On
FFT Scale Factor	200 %
Line/Partition Swap	Off
Homodyne Phase Filter	Off
Flat Image	On
T1 Map	On
Division Image	Off
ExtInvPulseOn	On
OffResFreqInv	0
Invflipangle	970

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\\USER\Feinberglab\Alex\Auditorv	I Ulcillaiocario/OL Diomini	WIDELLA 13 WORD DIS

TA: 1:16 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System T1	On
Auto store images	On	M2	On On
Load to stamp segments	Off	W2 B4	On
Load images to graphic	Off	M3	On
segments		V32	Off
Auto open inline display	Off		
Start measurement without	On	Positioning mode	FIX
further preparation	0"	MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	30	AutoAlign	 D ()
Dist. factor	0 %	Auto Coil Select	Default
Position	L2.1 A33.1 F11.7	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	200 mm	Adjustment Tolerance	Auto
FoV phase	90.6 %	Adjust volume	
Slice thickness	0.80 mm	Position	L2.1 A33.1 F11.7
TR	2400 ms	Orientation	Transversal
TE	22.8 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	200 mm
Filter	None	A >> P	182 mm
Coil elements	B4;M2,3;T1	F >> H	25 mm
Contrast MTC	Off	Physio 1st Signal/Mode	None
Magn. preparation	None	-	none
Flip angle	90 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
		Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	23	Model transition states	On
Delay in TR	1200 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	20
Base resolution	256	— Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	5/8	Meas[3]	Baseline
Interpolation	Off	Meas[4]	Baseline
DAT mode	GRADDA	Meas[5]	Baseline Baseline
PAT mode Accel. factor PE	GRAPPA 3	Meas[6]	Baseline Baseline
Ref. lines PE	3 48	Meas[7] Meas[8]	Baseline Baseline
Reference scan mode	GRE	Meas[9]	Baseline
	UILL	Meas[9] Meas[10]	Baseline
Distortion Corr.	Off	Meas[10]	Active
Prescan Normalize	Off	Meas[12]	Active
Raw filter	On	Meas[13]	Active
Elliptical filter	Off	Meas[14]	Active
Hamming	Off	Meas[15]	Active
Geometry		Meas[16]	Active
Multi-slice mode	Interleaved	Meas[17]	Active
Series	Interleaved	Meas[18]	Active
		Meas[19]	Active
		113/176	

Meas[20] Motion correction Spatial filter	Active Off Off
Sequence	

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1220 Hz/Px No Off 1.03 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 232 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 0 1/FoV 0 0 0 0 0 1 0 0 On Off Off Off Off Off Off Off Off Off

TA: 1:15 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	T1	On
Auto store images	On	M2	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	M3	On
segments		V32	Off
Auto open inline display	Off		
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	28	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	L2.1 A33.1 F11.7	Shim mode	Standard
Orientation	Transversal		
Phase enc. dir.	A >> P	Adjust with body coil	Off
Rotation	0.00 deg	Confirm freq. adjustment Assume Silicone	On Off
Phase oversampling	0.00 deg 0 %		
FoV read	200 mm	! Ref. amplitude 1H	170.000 V
FoV phase	90.6 %	Adjustment Tolerance	Auto
Slice thickness	90.6 % 0.80 mm	Adjust volume	104 400 4 544 7
TR	2400 ms	Position	L2.1 A33.1 F11.7
TE		Orientation	Transversal
Multi-band accel. factor	28.2 ms 2	Rotation	0.00 deg
Filter	None	R >> L	200 mm
Coil elements		A >> P	182 mm
	B4;M2,3;T1	F >> H	23 mm
Contrast MTC	Off	Physio 1st Signal/Mode	None
Magn. preparation	None	1	140110
Flip angle	90 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
		Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	23	Model transition states	On
Delay in TR	1200 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	20
Base resolution	256	Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	6/8	Meas[3]	Baseline
Interpolation	Off	Meas[4]	Baseline
	OII	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	3	Meas[7]	Baseline
Ref. lines PE	48	Meas[8]	Baseline
Reference scan mode	GRE	Meas[9]	Baseline
Distortion Com	O#	Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off	Meas[12]	Active
Raw filter	On	Meas[13]	Active
	Off	Meas[14]	Active
Elliptical filter			
Hamming	Off		Active
Hamming		Meas[15]	
Hamming Geometry	Off	Meas[15] Meas[16]	Active
Hamming		Meas[15]	

Meas[20] Motion correction	Active Off
Spatial filter	Off
Sequence	

Sequence	
Introduction	Off
Bandwidth	1220 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1.03 ms
SIR accel. factor	1
EPI factor	232
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	3640 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.02
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

\\USER\Feinberglab\Alex\Auditor	/ PotentialScans\GE	pt8mm	MB2IPAT4	wGap pf7	,
(IOOLIX) CITIOCIGIAD (AICX) Additor		DIOITIII		WOAD DI	

TA: 1:16 PAT: 4 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	T1	On
Auto store images	On	M2	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	M3	On
segments		V32	Off
Auto open inline display	Off		
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	24	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	L2.1 A33.1 F11.7	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	200 mm	Adjustment Tolerance	Auto
FoV phase	90.6 %	Adjust volume	. 1010
Slice thickness	0.80 mm	Position	L2.1 A33.1 F11.7
TR	2400 ms	Orientation	Transversal
TE	31.6 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	200 mm
Filter	None	A >> P	182 mm
Coil elements	B4;M2,3;T1	F >> H	20 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	1	
Flip angle	90 deg	BOLD	~
Fat suppr.	Fat sat.	GLM Statistics	Off
A	I are a terms	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	23 1300 ms	Model transition states	On
Delay in TR	1200 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	20
Base resolution	256	- Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	7/8	Meas[3]	Baseline
Interpolation	Off	Meas[4]	Baseline
DAT		Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	4	Meas[7]	Baseline
Ref. lines PE	64 CDE	Meas[8]	Baseline
Reference scan mode	GRE	Meas[9]	Baseline
Distortion Corr.	Off	Meas[10]	Baseline
Prescan Normalize	Off	Meas[11]	Active
Raw filter	On	Meas[12]	Active
Elliptical filter	Off	Meas[13]	Active
		Meas[14]	Active
•	Off		Active
Hamming	Off	Meas[15]	
Hamming Geometry		Meas[16]	Active
Hamming Geometry Multi-slice mode	Interleaved	Meas[16] Meas[17]	Active Active
Hamming Geometry		Meas[16]	Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Spatial filter	Off
Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1220 Hz/Px No Off 1.04 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 232 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 0 1/FoV 0 0 0 0 1 0 0 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\Auditory_PotentialScans\GE_pt8mm_MB2IPAT4_wGap_pf7_altFOV TA: 1:16 PAT: 4 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	System T1	05
Auto store images	On		On
Load to stamp segments	Off	M2 B4	On
Load images to graphic	Off	M3	On
segments		_	On O#
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
1	Ğ	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	24	Auto Coil Select	Default
Dist. factor	0 %		
Position	L2.1 A33.1 F11.7	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	153 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	0.80 mm	Position	L2.1 A33.1 F11.7
TR	2400 ms	Orientation	Transversal
TE	28.0 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	153 mm
Filter	None	A >> P	153 mm
Coil elements	B4;M2,3;T1	F >> H	20 mm
Contrast		ı	
MTC	Off	Physio 1st Signal/Mada	None
Magn. preparation	None	1st Signal/Mode	None
Flip angle	90 deg	BOLD	
	Fat sat.	GLM Statistics	Off
Fat suppr.	rai sai.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	23	Model transition states	On
Delay in TR	1200 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
1		Paradigm size	20
Resolution	100	- Meas[1]	Baseline
Base resolution	192	Meas[2]	Baseline
Phase resolution	100 %	Meas[3]	Baseline
Phase partial Fourier	7/8	Meas[4]	Baseline
Interpolation	Off	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	4	Meas[7]	Baseline
Ref. lines PE	64	Meas[8]	Baseline
Reference scan mode	GRE	Meas[9]	Baseline
	JILL	Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off		Active
Raw filter	On	Meas[12]	Active
Elliptical filter	Off	Meas[13]	
Hamming	Off	Meas[14]	Active
1		Meas[15]	Active
Geometry		Meas[16]	Active
Multi-slice mode	Intorioguad	_ Meas[17]	Active
	Interleaved		
Series	Interleaved	Meas[18] Meas[19]	Active Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction	Off
Bandwidth	1184 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1.07 ms
SIR accel. factor	1
EPI factor	192
Gradient mode	Normal
RF spoiling	Off
	2640
Excite pulse duration Slice multiplier	3640 us 1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.02
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

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		Special sat.	None
Properties	0"		
Prio Recon	Off	Table position	H
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On O"	System	
Inline movie	Off	T1	On
Auto store images	On Off	M2	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	M3	On
segments	0#	V32	Off
Auto open inline display	Off		
Start measurement without	On	Positioning mode	REF
further preparation	0#	MSMA	S-C-T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slab group 1		Save uncombined	Off
Slabs	1	Coil Combine Mode	Adaptive Combine
Dist. factor	0 %	AutoAlign	Defects
Position	Isocenter	Auto Coil Select	Default
Orientation	Transversal	Shim mode	Standard
Phase enc. dir.	A >> P	Adjust with body coil	Off
Rotation	0.00 deg	Confirm freq. adjustment	Off
Phase oversampling	0 %	Assume Silicone	Off
Slice oversampling	0.0 %	! Ref. amplitude 1H	100.000 V
Slices per slab	16	Adjustment Tolerance	Auto
FoV read	200 mm	Adjust volume	
FoV phase	11.2 %	Position	Isocenter
Slice thickness	0.80 mm	Orientation	Transversal
TR	2000 ms	Rotation	0.00 deg
TE	35.66 ms	R >> L	200 mm
Averages	1	A >> P	23 mm
Concatenations	1	F >> H	13 mm
Filter	None	Physio	
Coil elements	B4;M2,3;T1	1st Signal/Mode	None
Contrast			None
Flip angle 1	90 deg	BOLD	
Flip angle 2	180 deg	Motion correction	Off
Fat suppr.	Fat sat.	Spatial filter	Off
	Long torm	Sequence	
Averaging mode	Long term	Introduction	Off
Reconstruction Measurements	Magnitude 3	Dimension	3D
Pause after meas. 1	_	Reordering	Centric
Pause after meas. 1 Pause after meas. 2	0.0 s	Contrasts	1
Multiple series	0.0 s Off	Bandwidth	1112 Hz/Px
Multiple Series	Oli	Echo spacing	1.06 ms
Resolution			40
Base resolution	250	Slice turbo factor EPI factor	10 28
Phase resolution	100 %		_
Slice resolution	100 %	RF pulse type Gradient mode	Normal Fast
Slice partial Fourier	5/8	Gradient mode	ı⁻aəı
Interpolation	Off	Adjust flipangles	Off
PAT mode	None	FLIP ANGLES[1] FLIP ANGLES[2]	180 deg 180 deg
Raw filter	Off	FLIP ANGLES[3]	180 deg
Geometry		FLIP ANGLES[4]	180 deg
Series	Ascending	FLIP ANGLES[5]	180 deg
Cot we sign 4		FLIP ANGLES[6]	180 deg
Sat. region 1	24 mm	FLIP ANGLES[7]	180 deg
Thickness	24 mm	FLIP ANGLES[8]	180 deg

Position

Orientation

Isocenter

Coronal

FLIP ANGLES[9] FLIP ANGLES[10]

180 deg 180 deg

Crusher Factor	7.00
Spoiler Factor	1.00
RF02 BWT Factor	1.00
RF02 time	2560 ms
RF Scaling[1]	1.00
Phase Encoding PE	On
Phase Encoding 3D	On
Measurement Number	1023
Inversion Flag	Off
FFT Scale Factor	0.10
ACROSSSEGMENTS	Off
PRIMARYMODE	On
AUTOCORR	Off
CROSSCORR	Off
FILTERED	On
FatSat FlipAngle	110 deg

\\USER\Feinberglab\Alex\Auditory_PotentialScans\GE_1pt5mm_MB5IPAT3_500ms

TA: 0:31 PAT: 3 Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments		M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation	Oli	<u> </u>	S - C - T
Wait for user to start	Off	MSMA	
		Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	40	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	L1.3 A29.0 H0.7	Shim mode	Standard
Orientation	Transversal	Shim mode	Standard
Phase enc. dir.	ransversai A >> P	Adjust with body coil	Off
		Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	192 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	1.50 mm	Position	L1.3 A29.0 H0.7
TR	500 ms	Orientation	Transversal
TE	18.8 ms	Rotation	0.00 deg
Multi-band accel. factor	5	R >> L	192 mm
Filter	None	A >> P	192 mm
Coil elements	B4;M2,3;T1	F >> H	60 mm
Contract	, ,-,	ı	00 11
Contrast	0"	Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	40 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude		
	23	Ignore after transition	0
Measurements		Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	20
Base resolution	128	- Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	6/8	Meas[3]	Baseline
Interpolation		I Maga[4]	Baseline
		Meas[4]	
l	Off	Meas[4] Meas[5]	Baseline
PAT mode			
PAT mode Accel. factor PE	Off	Meas[5]	Baseline
	Off GRAPPA	Meas[5] Meas[6]	Baseline Baseline
Accel. factor PE Ref. lines PE	Off GRAPPA 3 48	Meas[5] Meas[6] Meas[7] Meas[8]	Baseline Baseline Baseline
Accel. factor PE Ref. lines PE Reference scan mode	Off GRAPPA 3 48 GRE	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	Baseline Baseline Baseline Baseline Baseline
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	Off GRAPPA 3 48 GRE	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Accel. factor PE Ref. lines PE Reference scan mode	Off GRAPPA 3 48 GRE	Meas[5]	Baseline Baseline Baseline Baseline Baseline Baseline Active
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	Off GRAPPA 3 48 GRE	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Baseline Baseline Baseline Baseline Baseline Baseline Active Active
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	Off GRAPPA 3 48 GRE Off Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	Off GRAPPA 3 48 GRE Off Off Off On Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	Off GRAPPA 3 48 GRE Off Off Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active Active
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Off GRAPPA 3 48 GRE Off Off Off On Off Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active Active Active Active Active
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	Off GRAPPA 3 48 GRE Off Off Off Off On Off Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[16]	Baseline Baseline Baseline Baseline Baseline Baseline Active
Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Off GRAPPA 3 48 GRE Off Off Off On Off Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active Active Active Active Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sec	uence
OCG	uciice

 Introduction Bandwidth Flow comp. Free echo spacing Echo spacing SIR accel. factor EPI factor Gradient mode RF spoiling	Off 1446 Hz/Px No Off 1 ms 1 128 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 5 1/FoV 0 0 0 0 1 0 0 0 1 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\Auditor	/ PotentialScans\GF	1pt5mm	MB1IPAT3	2000ms
100 CETA CHIDCIGIAD VIICA VIICA VIICA I		IPIOITIIII		20001113

TA: 1:03 PAT: 3 Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Orientation Tra Phase enc. dir. A > Rotation 0.00 Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.50 TR 200 TE 18.6 Multi-band accel. factor Filter Nor	% 3 A29.0 H0.7 ansversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms	Table position Table position Inline Composing System T1 M2 B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P F >> H	H 0 mm Off On On On On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm 192 mm
Before measurement After measurement Load to viewer Inline movie Auto store images Con Load to stamp segments Coff Load images to graphic Segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Slice group 1 Slices Dist. factor Position Orientation Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR Coil elements Dist. factor Position Coil elements B4; Contrast MTC Off	% 3 A29.0 H0.7 ansversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms ne	Table position Inline Composing System T1 M2 B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	O mm Off On On On On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
After measurement Load to viewer On Inline movie Off Auto store images On Load to stamp segments Off Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Slice group 1 Slices Dist. factor Position Orientation Tra Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR Multi-band accel. factor Filter Coil elements Off Coff Coff Coff Coff Coff Coff Coff	6 3 A29.0 H0.7 ansversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms ne	System T1 M2 B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	On On On On On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Inline movie Auto store images Con Load to stamp segments Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Slice group 1 Slices Dist. factor Position Orientation Tra Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR Multi-band accel. factor Filter Coil elements Off Auto open inline display Off Start measurement without On further preparation On Start measurement without On further preparation On For user to start Off Start measurement without On further preparation On For user to start Off Start measurement without On further preparation On For user to start Off Start measurement without On For user to start Off Start measurement without On further preparation On For user to start Off Start measurement without On further preparation On For user to start Off Start measurements On For user to start Off Start measurement On For user to start On For user to start Off Start measurement On For user to start On Fo	6 3 A29.0 H0.7 ansversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms ne	System T1 M2 B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	On On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Auto store images Load to stamp segments Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Routine Slice group 1 Slices Dist. factor Position Orientation Tra Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR Multi-band accel. factor Filter Coil elements Off Soff Dist. factor Phase oversampling FoV read FoV phase Slice thickness TR Contrast Contrast MTC Off Off Off Off Coff Off Off O	6 3 A29.0 H0.7 ansversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms	T1 M2 B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	On On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Load to stamp segments Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Sing Routine Slice group 1 Slices Dist. factor Position Orientation Tra Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR Multi-band accel. factor Filter Coil elements Off Soff Start measurements Sing Routine Routine Slice group 1 Slices 40 0 % 0 % 0 % 10 % 11.30 12 % 13 % 14 % 15 % 16 % 17 % 18 % 18 % 18 % 18 % 18 % 18 % 18 % 18	6 3 A29.0 H0.7 ansversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms ne	M2 B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	On On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Load images to graphic segments Auto open inline display Off Start measurement without further preparation Wait for user to start Off Start measurements sing Routine Routine Slice group 1 Slices 40 Dist. factor 0 % Position L1.3 Orientation Tra Phase enc. dir. A > Rotation 0.00 Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.50 TR 200 TE 18.8 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Off	gle 3 A29.0 H0.7 ansversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms ne	B4 M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	On On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
segments Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Sing Routine Slice group 1 Slices Dist. factor Position Orientation Tra Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR Multi-band accel. factor Filter Coil elements MTC Off Start measurements Off Slice group 1 Off Slice	gle 3 A29.0 H0.7 ansversal P 0 deg 2 mm 0.0 % 0 mm 00 ms 8 ms ne	M3 V32 Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	On Off FIX S - C - T R >> L A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Auto open inline display Start measurement without further preparation Wait for user to start Start measurements Routine Slice group 1 Slices Dist. factor Position Orientation Tra Phase enc. dir. Rotation Phase oversampling FoV read FoV phase Slice thickness TR Multi-band accel. factor Filter Coil elements Onf Onf Onf Onf Onf Onf Onf Onf Onf On	gle 6 3 A29.0 H0.7 nnsversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms ne	Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	FIX S - C - T R >> L A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Start measurement without further preparation Wait for user to start Off Start measurements sing Routine Slice group 1 Slices 40 Dist. factor 0 % Position L1.3 Orientation Tra Phase enc. dir. A > Rotation 0.00 Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.50 TR 200 TE 18.3 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Off	gle 6 3 A29.0 H0.7 nnsversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms ne	Positioning mode MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	FIX S - C - T R >> L A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
further preparation Wait for user to start Start measurements Routine Slice group 1 Slices 40 Dist. factor 0 % Position L1.3 Orientation Tra Phase enc. dir. A > Rotation 0.00 Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.50 TR 200 TE 18.3 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Office	gle 6 3 A29.0 H0.7 nnsversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms ne	MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	S - C - T R >> L A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Wait for user to start Start measurements sing sing start measurements sing sing start measurements sing sing start measurements sing start measurements sing sing start measurements sing sing sing start measurements sing sing sing sing start measurements sing sing sing sing sing sing sing sin	gle 3 A29.0 H0.7 ansversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms	MSMA Sagittal Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	R >> L A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Routine Slice group 1 Slices 40 Dist. factor 0 % Position L1.3 Orientation Tra Phase enc. dir. A > Rotation 0.00 Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.56 TR 200 TE 18.3 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Offe	gle 3 A29.0 H0.7 ansversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms	Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	A >> P F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Routine Slice group 1 Slices 40 Dist. factor 0 % Position L1.3 Orientation Tra Phase enc. dir. A > Rotation 0.00 Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.56 TR 200 TE 18.3 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Offe	% 3 A29.0 H0.7 ansversal >> P 0 deg % 2 mm 0.0 % 0 mm 00 ms 8 ms	Coronal Transversal Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	F >> H Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Slice group 1 Slices	3 A29.0 H0.7 Insversal P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms	Coil Combine Mode AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	Sum of Squares Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Slice group 1 Slices	3 A29.0 H0.7 Insversal P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms	AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Slices 40 Dist. factor 0 % Position L1.: Orientation Tra Phase enc. dir. A > Rotation 0.00 Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.50 TR 200 TE 18.: Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast	3 A29.0 H0.7 Insversal P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms	AutoAlign Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	Default Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Dist. factor 0 % Position L1.3 Orientation Tra Phase enc. dir. A > Rotation 0.00 Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.50 TR 200 TE 18.3 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Offi	3 A29.0 H0.7 Insversal P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms	Auto Coil Select Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	Standard Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Position L1.: Orientation Tra Phase enc. dir. A > Rotation 0.00 Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.50 TR 200 TE 18.: Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast	3 A29.0 H0.7 Insversal P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms	Shim mode Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Orientation Tra Phase enc. dir. A > Rotation 0.00 Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.50 TR 200 TE 18.8 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Off	ansversal >> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	Off On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Phase enc. dir. A > Rotation 0.00 Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.50 TR 200 TE 18.8 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Off	>> P 0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms	Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	On Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Rotation 0.00 Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.50 TR 200 TE 18.8 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Off	0 deg 6 2 mm 0.0 % 0 mm 00 ms 8 ms	Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	Off 170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Phase oversampling 0 % FoV read 192 FoV phase 100 Slice thickness 1.56 TR 200 TE 18.6 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Off	6 2 mm 0.0 % 0 mm 00 ms 8 ms	! Ref. amplitude 1H Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	170.000 V Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
FoV read 192 FoV phase 100 Slice thickness 1.50 TR 200 TE 18.8 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Off	2 mm 0.0 % 0 mm 00 ms 8 ms	Adjustment Tolerance Adjust volume Position Orientation Rotation R >> L A >> P	Auto L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
FoV phase 100 Slice thickness 1.50 TR 200 TE 18.8 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Off	0.0 % 0 mm 00 ms 8 ms	Adjust volume Position Orientation Rotation R >> L A >> P	L1.3 A29.0 H0.7 Transversal 0.00 deg 192 mm
Slice thickness 1.50 TR 200 TE 18.8 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Off	0 mm 00 ms 8 ms	Position Orientation Rotation R >> L A >> P	Transversal 0.00 deg 192 mm
TR 200 TE 18.8 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Off	00 ms 8 ms ne	Orientation Rotation R >> L A >> P	Transversal 0.00 deg 192 mm
TE 18.8 Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Off	8 ms ne	Rotation R >> L A >> P	0.00 deg 192 mm
Multi-band accel. factor 1 Filter Nor Coil elements B4; Contrast MTC Off	ne	R >> L A >> P	192 mm
Filter Nor Coil elements B4; Contrast MTC Off		A >> P	
Contrast MTC Off			192 mm
Contrast Off	;M2,3;T1	F \> H	
MTC Off		I	60 mm
		Physio 1st Signal/Mode	None
		rst Signal/Mode	None
3 1 1 1	deg	BOLD	
	sat.	GLM Statistics	Off
		Dynamic t-maps	Off
	ng term	Starting ignore meas	0
	gnitude	Ignore after transition	0
Measurements 23		Model transition states	On
Delay in TR 0 m		Temp. highpass filter	On
Multiple series Off		Threshold	4.00
Resolution		Paradigm size	20
Base resolution 128	3	- Meas[1]	Baseline
Phase resolution 100		Meas[2]	Baseline
Phase partial Fourier 6/8		Meas[3]	Baseline
Interpolation Off		Meas[4]	Baseline
		Meas[5]	Baseline
PAT mode GR	APPA	Meas[6]	Baseline
Accel. factor PE 3		Meas[7]	Baseline
Ref. lines PE 48		Meas[8]	Baseline
Reference scan mode GR	RE	Meas[9]	Baseline
Distortion Corr		Meas[10]	Baseline
Distortion Corr. Off		Meas[11]	Active
Prescan Normalize Off		Meas[12]	Active
Raw filter On		Meas[13]	Active
Elliptical filter Off		Meas[14]	Active
Hamming Off		Meas[15]	Active
Geometry		Meas[16]	Active
	erleaved	Meas[17]	Active
	erleaved	Meas[18]	Active
		Meas[19]	Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Sequence	
Introduction	O#

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1446 Hz/Px No Off 0.8 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 128 Normal Off
Excite pulse duration Slice multiplier Fake MB factor for SB No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 1 0 0 1 0 Off Off Off Off Off Off Off Off Off O

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TA: 1:13 PAT: 3 Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On		
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments		M3	On O"
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
	G	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	40	Auto Coil Select	Default
Dist. factor	0 %		
Position	L1.3 A29.0 H0.7	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	192 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	1.50 mm	Position	L1.3 A29.0 H0.7
TR	2000 ms	Orientation	Transversal
TE	18.8 ms	Rotation	0.00 deg
Multi-band accel. factor	5	R >> L	192 mm
Filter	None	A >> P	192 mm
Coil elements	B4;M2,3;T1	F >> H	60 mm
Contrast		Physio	
MTC Maga proposition	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	80 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude		•
	Magnitade	I Ignore after transition	0
Measurements	23	Ignore after transition Model transition states	0 On
		Model transition states	On
Delay in TR	23	Model transition states Temp. highpass filter	On On
Delay in TR Multiple series	23 0 ms	Model transition states Temp. highpass filter Threshold	On On 4.00
Delay in TR Multiple series Resolution	23 0 ms Off	Model transition states Temp. highpass filter Threshold Paradigm size	On On 4.00 20
Delay in TR Multiple series Resolution Base resolution	23 0 ms Off	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1]	On On 4.00 20 Baseline
Delay in TR Multiple series Resolution Base resolution Phase resolution	23 0 ms Off 128 100 %	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2]	On On 4.00 20 Baseline Baseline
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier	23 0 ms Off 128 100 % 6/8	Model transition states Temp. highpass filter Threshold Paradigm size —— Meas[1] Meas[2] Meas[3]	On On 4.00 20 Baseline Baseline Baseline
Delay in TR Multiple series Resolution Base resolution Phase resolution	23 0 ms Off 128 100 %	Model transition states Temp. highpass filter Threshold Paradigm size —— Meas[1] Meas[2] Meas[3] Meas[4]	On On 4.00 20 Baseline Baseline Baseline Baseline Baseline
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation	23 0 ms Off 128 100 % 6/8 Off	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode	23 0 ms Off 128 100 % 6/8 Off	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6]	On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	23 0 ms Off 128 100 % 6/8 Off GRAPPA 3	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	On On 4.00 20 Baseline
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE	23 0 ms Off 128 100 % 6/8 Off GRAPPA 3 48	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	On On 4.00 20 Baseline
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	23 0 ms Off 128 100 % 6/8 Off GRAPPA 3	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[8]	On On 4.00 20 Baseline
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE	23 0 ms Off 128 100 % 6/8 Off GRAPPA 3 48	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8] Meas[9] Meas[10]	On On 4.00 20 Baseline
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	23 0 ms Off 128 100 % 6/8 Off GRAPPA 3 48 GRE	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	On On 4.00 20 Baseline Active
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	23 0 ms Off 128 100 % 6/8 Off GRAPPA 3 48 GRE	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	On On 4.00 20 Baseline Active Active
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	23 0 ms Off 128 100 % 6/8 Off GRAPPA 3 48 GRE	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	On On 4.00 20 Baseline Bateline Active Active
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	23 0 ms Off 128 100 % 6/8 Off GRAPPA 3 48 GRE Off Off	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	On On 4.00 20 Baseline Bateline
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	23 0 ms Off 128 100 % 6/8 Off GRAPPA 3 48 GRE Off Off On	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15]	On On 4.00 20 Baseline Bateline
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	23 0 ms Off 128 100 % 6/8 Off GRAPPA 3 48 GRE Off Off On	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[15] Meas[15] Meas[16]	On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline
Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	23 0 ms Off 128 100 % 6/8 Off GRAPPA 3 48 GRE Off Off On	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15]	On On 4.00 20 Baseline Bateline

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1446 Hz/Px No Off 1 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 128 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 5 1/FoV 0 0 0 0 1 0 0 0 On Off Off Off Off Off Off Off Off Off

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		1111111	

TA: 0:17 PAT: 4 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	.	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation	Oli	Positioning mode	
Wait for user to start	Off	MSMA	S-C-T
		Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	30	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	L1.4 A31.7 F4.9	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freg. adjustment	On
Rotation	0.00 deg		
	0.00 deg 0 %	Assume Silicone	Off
Phase oversampling		! Ref. amplitude 1H	170.000 V
FoV read	200 mm	Adjustment Tolerance	Auto
FoV phase	91.0 %	Adjust volume	
Slice thickness	1.00 mm	Position	L1.4 A31.7 F4.9
TR	1000 ms	Orientation	Transversal
TE	24.0 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	200 mm
Filter	None	A >> P	182 mm
Coil elements	B4;M2,3;T1	F >> H	30 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	1	110110
Flip angle	90 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
		Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	3	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	0-
Multiple series		Temp. Highpass litter	On
i -	Off	Threshold	4.00
Decelution	Off	Threshold	4.00
Resolution		Threshold Paradigm size	4.00 20
Base resolution	200	Threshold Paradigm size - Meas[1]	4.00 20 Baseline
Base resolution Phase resolution	200 100 %	Threshold Paradigm size - Meas[1] Meas[2]	4.00 20 Baseline Baseline
Base resolution Phase resolution Phase partial Fourier	200 100 % 7/8	Threshold Paradigm size - Meas[1] Meas[2] Meas[3]	4.00 20 Baseline Baseline Baseline
Base resolution Phase resolution	200 100 %	Threshold Paradigm size - Meas[1] Meas[2] Meas[3] Meas[4]	4.00 20 Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation	200 100 % 7/8 Off	Threshold Paradigm size - Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode	200 100 % 7/8 Off GRAPPA	Threshold Paradigm size - Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6]	4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	200 100 % 7/8 Off GRAPPA 4	Threshold Paradigm size - Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE	200 100 % 7/8 Off GRAPPA 4 64	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	4.00 20 Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	200 100 % 7/8 Off GRAPPA 4	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	4.00 20 Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	200 100 % 7/8 Off GRAPPA 4 64 Segmented	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10]	4.00 20 Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	200 100 % 7/8 Off GRAPPA 4 64 Segmented	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	4.00 20 Baseline Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	200 100 % 7/8 Off GRAPPA 4 64 Segmented Off	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	4.00 20 Baseline Bateline Bateline Bateline Bateline Bateline Bateline Bateline Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	200 100 % 7/8 Off GRAPPA 4 64 Segmented Off Off On	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	4.00 20 Baseline Active Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	200 100 % 7/8 Off GRAPPA 4 64 Segmented Off Off On Off	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	4.00 20 Baseline Bateline Bateline Bateline Bateline Bateline Bateline Bateline Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	200 100 % 7/8 Off GRAPPA 4 64 Segmented Off Off On	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	4.00 20 Baseline Active Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	200 100 % 7/8 Off GRAPPA 4 64 Segmented Off Off On Off	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	4.00 20 Baseline Bateline Active Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	200 100 % 7/8 Off GRAPPA 4 64 Segmented Off Off On Off	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline Active Active Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	200 100 % 7/8 Off GRAPPA 4 64 Segmented Off Off On Off	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[15] Meas[16]	4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline Active Active Active Active Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1250 Hz/Px No Off 1 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 182 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 0 1/FoV 0 0 0 0 0 1 0 O O O O Off Off Off Off Off Off Off O

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TA: 7:17 PAT: 3 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Special sat. None Properties Prio Recon Off Table position Η Before measurement Table position 0 mm After measurement Inline Composing Off Load to viewer On System Inline movie Off On Auto store images On M2 On Load to stamp segments Off **B4** On Load images to graphic Off М3 On segments V32 Off Off Auto open inline display Start measurement without Positioning mode On FIX further preparation **MSMA** S-C-T Off Wait for user to start Sagittal R >> L Start measurements single Coronal A >> P Transversal F >> H Routine Coil Combine Mode Sum of Squares Slice group 1 AutoAlign Slices 30 Auto Coil Select Default Dist. factor 0 % Position L1.4 A31.7 F4.9 Shim mode Standard Orientation Transversal Adjust with body coil Off Phase enc. dir. A >> P Confirm freq. adjustment On Rotation 0.00 deg Assume Silicone Off Phase oversampling 0 % ! Ref. amplitude 1H 170.000 V 200 mm FoV read Adjustment Tolerance Auto FoV phase 91.0 % Adjust volume Slice thickness 1.00 mm Position L1.4 A31.7 F4.9 TR 1000 ms Orientation Transversal ΤE 22.8 ms Rotation 0.00 deg Multi-band accel. factor 2 R >> L 200 mm Filter None A >> P 182 mm Coil elements B4;M2,3;T1 F >> H 30 mm Contrast Physio MTC Off 1st Signal/Mode None Magn. preparation None **BOLD** Flip angle 90 deg **GLM Statistics** Off Fat suppr. Fat sat. Dynamic t-maps Off Averaging mode Long term Starting ignore meas 0 Reconstruction Magnitude Ignore after transition 0 Measurements 420 Model transition states On Delay in TR 0 ms Temp. highpass filter On Multiple series Off Threshold 4.00 Paradigm size 20 Resolution Meas[1] Baseline Base resolution 200 Meas[2] Baseline Phase resolution 100 % Meas[3] Baseline 5/8 Phase partial Fourier Meas[4] Baseline Interpolation Off Meas[5] **Baseline** PAT mode **GRAPPA** Meas[6] Baseline Accel. factor PE Meas[7] Baseline Ref. lines PE 48 Meas[8] Baseline Reference scan mode GRE Meas[9] Baseline Meas[10] Baseline Distortion Corr. Off Meas[11] Active Off Prescan Normalize Meas[12] Active Raw filter On Meas[13] Active Elliptical filter Off Meas[14] Active Hamming Off Meas[15] Active

Geometry

Series

Multi-slice mode

Interleaved

Interleaved

Meas[16]

Meas[17]

Meas[18]

Meas[19]

Active

Active

Active

Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1250 Hz/Px No Off 1 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 182 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 0 1/FoV 0 0 0 0 1 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\Auditory_PotentialScans\GE_1mm_MB2IPAT3_pf5_612i_p+f+s

TA: 10:29 PAT: 3 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727 Special sat. None Properties Prio Recon Off Table position Η Before measurement Table position 0 mm After measurement Inline Composing Off Load to viewer On System Inline movie Off On Auto store images On M2 On Load to stamp segments Off **B4** On Load images to graphic Off М3 On segments V32 Off Off Auto open inline display Start measurement without Positioning mode On FIX further preparation **MSMA** S-C-T Off Wait for user to start Sagittal R >> L Start measurements single Coronal A >> P Transversal F >> H Routine Coil Combine Mode Sum of Squares Slice group 1 AutoAlign Slices 30 Auto Coil Select Default Dist. factor 0 % Position L1.4 A31.7 F4.9 Shim mode Standard Orientation Transversal Adjust with body coil Off Phase enc. dir. A >> P Confirm freq. adjustment On Rotation 0.00 deg Assume Silicone Off Phase oversampling 0 % ! Ref. amplitude 1H 170.000 V 200 mm FoV read Adjustment Tolerance Auto FoV phase 91.0 % Adjust volume Slice thickness 1.00 mm Position L1.4 A31.7 F4.9 TR 1000 ms Orientation Transversal ΤE 22.8 ms Rotation 0.00 deg Multi-band accel. factor 2 R >> L 200 mm Filter None A >> P 182 mm Coil elements B4;M2,3;T1 F >> H 30 mm Contrast Physio MTC Off 1st Signal/Mode None Magn. preparation None **BOLD** Flip angle 90 deg **GLM Statistics** Off Fat suppr. Fat sat. Dynamic t-maps Off Averaging mode Long term Starting ignore meas 0 Reconstruction Magnitude Ignore after transition 0 Measurements 612 Model transition states On Delay in TR 0 ms Temp. highpass filter On Multiple series Off Threshold 4.00 Paradigm size 20 Resolution Meas[1] Baseline Base resolution 200 Meas[2] Baseline Phase resolution 100 % Meas[3] Baseline 5/8 Phase partial Fourier Meas[4] Baseline Interpolation Off Meas[5] **Baseline** PAT mode **GRAPPA** Meas[6] Baseline Accel. factor PE Meas[7] Baseline Ref. lines PE 48 Meas[8] Baseline Reference scan mode GRE Meas[9] Baseline Meas[10] Baseline Distortion Corr. Off Meas[11] Active Off Prescan Normalize Meas[12] Active Raw filter On Meas[13] Active Elliptical filter Off Meas[14] Active Hamming Off Meas[15] Active Meas[16] Geometry Active Meas[17] Active Multi-slice mode Interleaved Meas[18] Active Series Interleaved

Meas[19]

Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1250 Hz/Px No Off 1 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 182 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 0 1/FoV 0 0 0 0 1 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\Auditory_PotentialScans\GE_1mm_MB2IPAT3_pf5_360i_TIMITb5

TA: 6:17 PAT: 3 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement	-	Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On On
segments		M3 V32	On Off
Auto open inline display	Off	V32	OII
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	30	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	L1.4 A31.7 F4.9	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	200 mm	Adjustment Tolerance	Auto
FoV phase	91.0 %	Adjust volume	71010
Slice thickness	1.00 mm	Position	L1.4 A31.7 F4.9
TR	1000 ms	Orientation	Transversal
TE	22.8 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	200 mm
Filter	None	A >> P	182 mm
Coil elements	B4;M2,3;T1	F >> H	30 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	90 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	360	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
· ·		Paradigm size	20
Resolution	000	Meas[1]	Baseline
Base resolution	200	Meas[2]	Baseline
Phase resolution	100 %	[-]	
Phase partial Fourier		Meas[3]	Baseline
	5/8	Meas[3] Meas[4]	Baseline Baseline
Interpolation		Meas[4]	
Interpolation PAT mode	5/8		Baseline
	5/8 Off	Meas[4] Meas[5] Meas[6]	Baseline Baseline
PAT mode	5/8 Off GRAPPA	Meas[4] Meas[5]	Baseline Baseline Baseline
PAT mode Accel. factor PE	5/8 Off GRAPPA 3	Meas[4] Meas[5] Meas[6] Meas[7]	Baseline Baseline Baseline Baseline
PAT mode Accel. factor PE Ref. lines PE Reference scan mode	5/8 Off GRAPPA 3 48 GRE	Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	Baseline Baseline Baseline Baseline Baseline
PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	5/8 Off GRAPPA 3 48 GRE	Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline
PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	5/8 Off GRAPPA 3 48 GRE Off	Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	5/8 Off GRAPPA 3 48 GRE Off Off	Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active
PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	5/8 Off GRAPPA 3 48 GRE Off Off Off On Off	Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active
PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	5/8 Off GRAPPA 3 48 GRE Off Off	Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active
PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	5/8 Off GRAPPA 3 48 GRE Off Off Off On Off	Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active
PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	5/8 Off GRAPPA 3 48 GRE Off Off Off On Off	Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active Active
PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	5/8 Off GRAPPA 3 48 GRE Off Off Off On Off Off	Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active Active Active Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction	Off
Bandwidth	1250 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1 ms
SIR accel. factor	1
EPI factor	182
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	3640 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.02
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

\\USER\Feinberglab\Alex\Auditory_PotentialScans\GE_1mm_MB2IPAT3_pf5_360i_TIMITb6

TA: 6:17 PAT: 3 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	T1	On
Auto store images	On	M2	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	M3	On
segments	~ "	V32	Off
Auto open inline display	Off		
Start measurement without	On	Positioning mode	FIX
further preparation Wait for user to start	Off	MSMA Societal	S - C - T R >> L
Start measurements	single	Sagittal Coronal	A >> P
l	Single	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	30	Auto Coil Select	Default
Dist. factor	0 %		
Position Orientation	L1.4 A31.7 F4.9 Transversal	Shim mode	Standard
Phase enc. dir.	A >> P	Adjust with body coil	Off
Rotation	0.00 deg	Confirm freq. adjustment Assume Silicone	On Off
Phase oversampling	0.00 deg 0 %	! Ref. amplitude 1H	170.000 V
FoV read	200 mm	Adjustment Tolerance	Auto
FoV phase	91.0 %	Adjust volume	Auto
Slice thickness	1.00 mm	Position	L1.4 A31.7 F4.9
TR	1000 ms	Orientation	Transversal
TE	22.8 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	200 mm
Filter	None	A >> P	182 mm
Coil elements	B4;M2,3;T1	F >> H	30 mm
Contrast	0"	Physio	
MTC Magn. preparation	Off None	1st Signal/Mode	None
Flip angle	90 deg	BOLD	
	au deg	GLM Statistics	Off
	Fat sat		
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Fat suppr. Averaging mode	Long term		Off 0
Fat suppr. Averaging mode Reconstruction	Long term Magnitude	Dynamic t-maps Starting ignore meas Ignore after transition	0 0
Fat suppr. Averaging mode Reconstruction Measurements	Long term Magnitude 360	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states	0 0 On
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR	Long term Magnitude 360 0 ms	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter	0 0 On On
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series	Long term Magnitude 360	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold	0 0 On On 4.00
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution	Long term Magnitude 360 0 ms Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size	0 0 On On 4.00 20
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution	Long term Magnitude 360 0 ms Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1]	0 0 On On 4.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution	Long term Magnitude 360 0 ms Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2]	0 0 On On 4.00 20
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier	Long term Magnitude 360 0 ms Off 200 100 % 5/8	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3]	0 0 On On 4.00 20 Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution	Long term Magnitude 360 0 ms Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2]	0 0 On On 4.00 20 Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier	Long term Magnitude 360 0 ms Off 200 100 % 5/8	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4]	0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation	Long term Magnitude 360 0 ms Off 200 100 % 5/8 Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE	Long term Magnitude 360 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	0 0 On On 4.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	Long term Magnitude 360 0 ms Off 200 100 % 5/8 Off GRAPPA 3	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8] Meas[9]	0 0 On On 4.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	Long term Magnitude 360 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[8] Meas[9] Meas[10]	0 0 On On A.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	Long term Magnitude 360 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	0 0 On On A.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	Long term Magnitude 360 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	0 0 0 On On 4.00 20 Baseline Active Active
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	Long term Magnitude 360 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[13]	0 0 0 On On 4.00 20 Baseline Bateline Active
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	Long term Magnitude 360 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off On	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14]	0 0 0 On On 4.00 20 Baseline Bateline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	Long term Magnitude 360 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15]	0 0 0 On On 4.00 20 Baseline Bateline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Long term Magnitude 360 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15] Meas[15] Meas[15] Meas[15] Meas[16]	0 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry Multi-slice mode	Long term Magnitude 360 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off Off On Off Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15] Meas[15] Meas[15] Meas[16] Meas[17]	0 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Long term Magnitude 360 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15] Meas[15] Meas[15] Meas[15] Meas[16]	0 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1250 Hz/Px No Off 1 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 182 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 0 1/FoV 0 0 0 0 1 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\Auditory_PotentialScans\GE_p8mm_MB2IPAT3_pf5_360i_TIMITb5
TA: 6:18 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	Custom	
Inline movie	Off	System	0:5
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments		M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation	.	MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
	Single	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1			
Slices	30	Auto Cail Calast	
Dist. factor	0 %	Auto Coil Select	Default
Position	L1.4 A31.7 F4.9	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	160 mm	Adjustment Tolerance	Auto
FoV phase	91.0 %	Adjustment Tolerance Adjust volume	Auto
Slice thickness	0.80 mm	Position	L1.4 A31.7 F4.9
TR	1000 ms	Orientation	
TE	22.8 ms		Transversal
Multi-band accel. factor	22.0 1115	Rotation	0.00 deg
Filter	None	R >> L	160 mm
		A >> P	146 mm
Coil elements	B4;M2,3;T1	F >> H	25 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	90 deg	GLM Statistics	Off
Fat suppr.	Fat sat.		
Averaging made	l and tarm	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	360	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	20
Base resolution	200	Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	5/8	Meas[3]	Baseline
•	Off	Meas[4]	Baseline
Interpolation	OII	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	3	Meas[7]	Baseline
Ref. lines PE	48	Meas[8]	Baseline
Reference scan mode	GRE	Meas[9]	Baseline
		Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off	Meas[11]	Active
Raw filter	On	Meas[13]	Active
Elliptical filter	Off		
Hamming	Off	Meas[14]	Active
G		Meas[15]	Active
Geometry		Meas[16]	Active
Multi-slice mode	Interleaved	Meas[17]	Active
Series	Interleaved	Meas[18]	Active
		Meas[19]	Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1250 Hz/Px No Off 1.01 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 182 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 0 1/FoV 0 0 0 0 0 1 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\Auditory_PotentialScans\mp2rage_0.7mm_TR4500

TA: 7:36 PAT: 3	Voxel size: 0.8×0.8×0.8 mm	Rel. SNR: 1.00 USER	:: mp2rage_wip602B
Dranastica		Image Filter	Off
Properties	0"	Distortion Corr.	Off
Prio Recon	Off	Prescan Normalize	Off
Before measurement		Normalize	Off
After measurement		B1 filter	Off
Load to viewer	On	Raw filter	Off
Inline movie	Off	Elliptical filter	Off
Auto store images	On	Emplical milei	Oli
Load to stamp segments	Off	Geometry	
Load images to graphic	Off	Multi-slice mode	Single shot
segments		Series	Interleaved
Auto open inline display	Off		
Start measurement without	On	Table position	Н
further preparation		Table position	0 mm
Wait for user to start	On		-
Start measurements		Inline Composing	Off
Start measurements	single	System	
Routine		T1	On
Slab group 1		M2	On
Slabs	1	B4	On
Dist. factor	50 %		_
Position	L1.2 A28.3 F30.2	M3	On Off
		V32	Off
Orientation	Sagittal	Positioning mode	FIX
Phase enc. dir.	H >> F	MSMA	S - C - T
Rotation	90.00 deg	Sagittal	R >> L
Phase oversampling	0 %	Coronal	A >> P
Slice oversampling	8.3 %		
Slices per slab	192	Transversal	F >> H
FoV read	200 mm	Save uncombined	Off
FoV phase	90.6 %	Coil Combine Mode	Adaptive Combine
Slice thickness	0.80 mm	AutoAlign	
TR	4500 ms	Auto Coil Select	Default
TE	3.33 ms	Object of the second of the se	Oten dead
Averages	1	Shim mode	Standard
	1	Adjust with body coil	Off
Concatenations	l Name	Confirm freq. adjustment	Off
Filter	None	Assume Silicone	Off
Coil elements	B4;M2,3;T1	! Ref. amplitude 1H	230.000 V
Contrast		Adjustment Tolerance	Auto
Magn. preparation	Non-sel. IR	Adjust volume	
		! Position	L1.9 A24.9 F9.3
TI 1	1000 ms	! Orientation	Sagittal
TI 2	3200 ms	! Rotation	0.00 deg
Flip angle 1	4 deg	! F >> H	108 mm
Flip angle 2	4 deg	! A >> P	160 mm
Fat suppr.	Water excit. fast		
Water suppr.	None	! R >> L	127 mm
2nd Inversion-Contrast	On	Physio	
		1st Signal/Mode	None
Averaging mode	Long term		
Reconstruction	Magnitude	Dark blood	Off
Measurements	1		
Multiple series	Each measurement	Resp. control	Off
Resolution		Inline	
Base resolution	256	Subtract	Off
Phase resolution	100 %	Std-Dev-Sag	Off
		Std-Dev-Cor	Off
Slice resolution	100 %	Std-Dev-Tra	Off
Phase partial Fourier	Off		
Slice partial Fourier	6/8	Std-Dev-Time	Off
Interpolation	Off	MIP-Sag	Off
DAT mode	CDADDA	MIP-Cor	Off
PAT mode	GRAPPA	MIP-Tra	Off
Accel. factor PE	3	MIP-Time	Off
Ref. lines PE	36	Save original images	On
Accel. factor 3D	1		
Reference scan mode	Integrated	Sequence	

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Off
Contrasts	1
Bandwidth	200 Hz/Px
Flow comp.	Slice
Echo spacing	8.1 ms
RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On
FFT Scale Factor	200 %
Line/Partition Swap	Off
Homodyne Phase Filter	Off
Flat Image	On
T1 Map	On
Division Image	Off
ExtInvPulseOn	On
OffResFreqInv	0
Invflipangle	970

\\USER\Feinberglab\Alex\Auditory_PotentialScans\GE_1mm_MB2IPAT3_pf5_420i_p+f
TA: 0:40 PAT: 3 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	T1	On
Auto store images	On	M2	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	M3	On
segments		V32	Off
Auto open inline display	Off		
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	30	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	L1.4 A31.7 F4.9	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	200 mm	Adjustment Tolerance	Auto
FoV phase	91.0 %	Adjust volume	
Slice thickness	1.00 mm	Position	L1.4 A31.7 F4.9
TR	1000 ms	Orientation	Transversal
TE	22.8 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	200 mm
Filter	None	A >> P	182 mm
Coil elements	B4;M2,3;T1	F >> H	30 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	1	None
Flip angle	90 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
		Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	23	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
Resolution		Paradigm size	20
Base resolution	200	— Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	5/8	Meas[3]	Baseline
Interpolation	Off	Meas[4]	Baseline
		Meas[5]	Baseline
PAT mode		Meas[6]	Baseline
Accel. factor PE	GRAPPA		
Dof lines DE	3	Meas[7]	Baseline
Ref. lines PE	3 48	Meas[7] Meas[8]	Baseline Baseline
Ref. lines PE Reference scan mode	3	Meas[7] Meas[8] Meas[9]	Baseline Baseline Baseline
	3 48	Meas[7] Meas[8] Meas[9] Meas[10]	Baseline Baseline Baseline Baseline
Reference scan mode	3 48 GRE	Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	Baseline Baseline Baseline Baseline Active
Reference scan mode Distortion Corr. Prescan Normalize Raw filter	3 48 GRE Off Off On	Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Baseline Baseline Baseline Baseline Active Active
Reference scan mode Distortion Corr. Prescan Normalize	3 48 GRE Off Off	Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	Baseline Baseline Baseline Baseline Active Active Active
Reference scan mode Distortion Corr. Prescan Normalize Raw filter	3 48 GRE Off Off On	Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	Baseline Baseline Baseline Baseline Active Active Active Active Active
Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	3 48 GRE Off Off On Off	Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	Baseline Baseline Baseline Baseline Active Active Active Active Active Active
Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	3 48 GRE Off Off On Off Off	Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Baseline Baseline Baseline Baseline Active Active Active Active Active Active Active Active
Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	3 48 GRE Off Off On Off	Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	Baseline Baseline Baseline Baseline Active Active Active Active Active Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction	Off
Bandwidth	1250 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1 ms
SIR accel. factor	1
EPI factor	182
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	3640 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.02
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

\\USER\Feinberglab\Alex\Auditory_PotentialScans\GE_1mm_MB2IPAT3_pf6_420i_p+f
TA: 0:40 PAT: 3 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties Special sa	t. None
Prio Recon Off Table posi	ition H
Before measurement Table posi	
After measurement Inline Com	
Load to viewer On	iposing on
Inline movie Off	
	On
1 M2	On
, S	On
Load images to graphic Off M3	On
segments V32	Off
Auto open inline display Off	
Start measurement without On Positioning	
further preparation MSMA	S - C - T
Wait for user to start Off Sagittal	R >> L
Start measurements single Coronal	A >> P
Routine	al F >> H
Coil Comb	oine Mode Sum of Squares
Slice group 1 Slice 30 AutoAlign	
Silices 30 Auto Coil 9	Select Default
DIST. TACTOR U%	
Position L1.4 A31.7 F4.9 Shim mod	
	n body coil Off
	eq. adjustment On
Rotation 0.00 deg Assume S	ilicone Off
Phase oversampling 0 % ! Ref. amp	olitude 1H 170.000 V
	nt Tolerance Auto
FoV phase 91.0 % Adjust volu	
Slice thickness 1.00 mm Position	
TR 1000 ms Orienta	
TE 23.0 ms Rotatio	
Multi-band accel. factor 2 R >> L	3 3 3 3 3
Filter None A >> P	
Coil elements B4;M2,3;T1 F >> H	30 mm
Contrast Physio	
MTC Off 1st Signal/	/Mode None
Magn. preparation None	
Flip angle 90 deg	
Fat suppr. Fat sat. GLM Statis	
Dynamic t	
	nore meas 0
	er transition 0
	nsition states On
Delay in TR 0 ms Temp. high	hpass filter On
Multiple series Off Threshold	4.00
Resolution Paradigm	
Mosell	Baseline
Dase resolution 200 Magain	Baseline
Fridse resolution 100 % Mose[3]	Baseline
Filase partial Fourier 6/6 Meas(A)	Baseline
Interpolation Off Meas[4]	Baseline
PAT mode GRAPPA Meas[6]	Baseline
	Baseline
	Baseline
Reference scan mode GRE Meas[9]	Baseline
Distortion Corr. Off Meas[10]	Baseline
Prescan Normalize Off Meas[11]	Active
Paw filter On Meas[12]	Active
I Measi131	Active
Elliptical filter Off Meas[14]	Active
Hamming Off Meas[14]	Active
	Active
Geometry Meas[16]	
	Active Active Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence			
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1250 Hz/Px No Off 1 ms		
SIR accel. factor EPI factor Gradient mode RF spoiling	1 182 Normal Off		
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 0 1/FoV 0 0 0 0 1 0 0 On Off Off Off Off Off Off Off Off Off		

\\USER\Feinberglab\Alex\Auditory_PotentialScans\GE_1mm_MB2IPAT4_pf7_420i_p+f

TA: 0:37 PAT: 4 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments		M3	On Off
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Douting		Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1	00	AutoAlign	
Slices	30	Auto Coil Select	Default
Dist. factor	0 %		
Position	L1.4 A31.7 F4.9	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	200 mm	Adjustment Tolerance	Auto
FoV phase	91.0 %	Adjust volume	
Slice thickness	1.00 mm	Position	L1.4 A31.7 F4.9
TR	1000 ms	Orientation	Transversal
TE	24.0 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	200 mm
Filter	None	A >> P	182 mm
Coil elements	B4;M2,3;T1	F >> H	30 mm
Contrast MTC	O#	Physio	N
	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	90 deg Fat sat.	GLM Statistics	Off
Fat suppr.	Fai Sai.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	23	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
•		Paradigm size	20
Resolution	000	- Meas[1]	Baseline
Base resolution	200	Meas[2]	Baseline
Phase resolution	100 %	Meas[3]	Baseline
Phase partial Fourier	7/8	Meas[4]	Baseline
Interpolation	Off	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	4	Meas[7]	Baseline
Ref. lines PE	64	Meas[8]	Baseline
Reference scan mode		Meas[9]	Baseline
	Segmented	Meas[10]	Baseline
Distortion Corr.	Off		
Prescan Normalize	Off	Meas[11]	Active
Raw filter	On	Meas[12]	Active
Elliptical filter	Off	Meas[13]	Active
Hamming	Off	Meas[14]	Active
		Meas[15]	Active
Geometry		Meas[16]	Active
Multi-slice mode	Interleaved	Meas[17]	Active
Series	Interleaved	Meas[18]	Active
Selles	IIIleileaveu	Meas[19]	Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Seq	IIIA	nce
OCG	luc	

Sequence	
Introduction	Off
Bandwidth	1250 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1 ms
SIR accel. factor	1
EPI factor	182
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 0 1/FoV 0 0 0 0 1 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\BWTP\ep3d_epi_backup_CAnew			
TA: 2.2 s PAT: Off	Voxel size: 7.8x7.8x5.0 mm	Rel. SNR: 1.00 USER: e	p3d_epi_backup_CAnew
Properties		Inline Composing	Off
Prio Recon	Off	System	
Before measurement		T1	On
After measurement		M2	Off
Load to viewer	On	B4	Off
Inline movie	Off	M3	Off
Auto store images	On	V32	Off
Load to stamp segments	Off	Positioning mode	REF
Load images to graphic	Off	MSMA	S - C - T
segments		Sagittal	R >> L
Auto open inline display	Off	Coronal	A >> P
Start measurement without	On	Transversal	F >> H
further preparation		Coil Combine Mode	Sum of Squares
Wait for user to start	Off	AutoAlign	
Start measurements	single	Auto Coil Select	Default
Routine			
Slice group 1		Shim mode	Standard
Slices	1	Adjust with body coil	Off
Dist. factor	50 %	Confirm freq. adjustment	Off
Position	Isocenter	Assume Silicone	Off
Orientation	Transversal	? Ref. amplitude 1H	0.000 V
Phase enc. dir.	A >> P	Adjustment Tolerance	Auto
Rotation	0.00 deg	Adjust volume	
Phase oversampling	0 %	Position	Isocenter
FoV read	500 mm	Orientation	Transversal
FoV phase	100.0 %	Rotation	0.00 deg
Slice thickness	5.0 mm	R >> L	500 mm
TR	10 ms	A >> P	500 mm
TE	1.0 ms	F >> H	5 mm
Averages	1	Physio	
Concatenations	1	1st Signal/Mode	None
Filter	None	TSt Signal/Mode	none
Coil elements	T1	BOLD	
Con elements	1.1	GLM Statistics	On
Contrast		Dynamic t-maps	Off
MTC	Off	Starting ignore meas	0
Flip angle	90 deg	Ignore after transition	0
Fat suppr.	Fat sat.	Model transition states	On
Averaging mode	Long torm	Temp. highpass filter	On
Averaging mode Reconstruction	Long term Magnitude	Threshold	4.00
Measurements	20	Paradigm size	20
Delay in TR	20 0 ms	Meas[1]	Baseline
1	Off	Meas[2]	Baseline
Multiple series	Oil	Meas[3]	Baseline
Resolution		Meas[4]	Baseline
Base resolution	64	Meas[5]	Baseline
Phase resolution	100 %	Meas[6]	Baseline
Phase partial Fourier	Off	Meas[7]	Baseline
Interpolation	Off	Meas[8]	Baseline
	NI	Meas[9]	Baseline
PAT mode	None	Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off	Meas[12]	Active
Raw filter	On	Meas[13]	Active
Elliptical filter	Off	Meas[14]	Active
Hamming	Off	Meas[15]	Active
		Meas[16]	Active
Geometry		Meas[17]	Active
Multi-slice mode	Interleaved	Meas[18]	Active
Series	Interleaved	Meas[19]	Active
Special sat.	None	Meas[20]	Active
		Motion correction	On
T-141		1	

Interpolation

3D-K-space

Table position

Table position

Н

0 mm

1	Spatial filter	Off
	Sequence	
	Introduction Dimension Bandwidth Free echo spacing Echo spacing	Off 2D 752 Hz/Px Off 1.4 ms
	EPI factor RF pulse type Gradient mode	64 Normal Fast
	RF90 duration MB Number DummyScan Number TR Extent(us) BwTimeProd PhaseOffset FOV Shift Polarity Interleaved	5120 1 1 0 52 0 0 0

\\USER\Feinberglab\Alex\Auditory_Pilot1\localizer_200V_nova Voxel size: 1.2×1.1×3.0 mm Rel. SNR: 1.00

SIEMENS: gre

TA: 0:27

PAT: Off

		1.170.0 11111 1101. 01411. 1.00	
Properties		Phase resolution	90 %
Prio Recon	Off	—— Phase partial Fourier	6/8
Before measurement	Oli	Interpolation	On
After measurement		PAT mode	None
Load to viewer	On	PAT mode	
	On O#	Image Filter	Off
Inline movie	Off	Distortion Corr.	Off
Auto store images	On O#	Prescan Normalize	Off
Load to stamp segments	Off	Normalize	Off
Load images to graphic	Off	B1 filter	Off
segments	0"	Raw filter	Off
Auto open inline display	Off	Elliptical filter	Off
Start measurement without	On	1 .	-
further preparation		Geometry	
Wait for user to start	Off	Multi-slice mode	Sequential
Start measurements	single	Series	Interleaved
Routine		Coturation made	Standard
Slice group 1		Saturation mode	Standard
Slices	5	Special sat.	None
Dist. factor	5 500 %	- 11 ···	
Position		Table position	H
	Isocenter	Table position	0 mm
Orientation	Sagittal	Inline Composing	Off
Phase enc. dir.	A >> P	Tim CT mode	Off
Rotation	0.00 deg	Tilli CT Illode	Oli
Slice group 2	-	System	
Slices	5	T1	On
Dist. factor	20 %	M2	On
Position	Isocenter	B4	On
Orientation	Coronal	M3	On
Phase enc. dir.	R >> L	V32	Off
Rotation	0.00 deg		
Slice group 3		Positioning mode	FIX
Slices	5	MSMA	S - C - T
Dist. factor	20 %	Sagittal	R >> L
Position	Isocenter	Coronal	A >> P
Orientation	Transversal	Transversal	F >> H
Phase enc. dir.	A >> P	Save uncombined	On
Rotation	0.00 deg	Coil Combine Mode	Sum of Squares
Phase oversampling	0 %	AutoAlign	
FoV read	280 mm	Auto Coil Select	Off
FoV phase	100.0 %		Tues
Slice thickness	3.0 mm	Shim mode	Tune up
TR	10.0 ms	Adjust with body coil	Off
TE	3.00 ms	Confirm freq. adjustment	Off
Averages	1	Assume Silicone	Off
Concatenations	15	! Ref. amplitude 1H	200.000 V
Filter	None	Adjustment Tolerance	Auto
Coil elements	B4;M2,3;T1	Adjust volume	
Con elements	D-7,1VIZ,O, I I	Position	Isocenter
Contrast		Orientation	Transversal
TD	0 ms	Rotation	0.00 deg
MTC	Off	R >> L	350 mm
Magn. preparation	None	A >> P	263 mm
Flip angle	10 deg	F >> H	350 mm
Fat suppr.	None	Dhyoic	
Water suppr.	None	Physio	None
SWI	Off	1st Signal/Mode	None
		Segments	1
Averaging mode	Short term	Tagging	None
Reconstruction	Magnitude	Dark blood	Off
Measurements	1	Daik blood	
Multiple series	Each measurement	Resp. control	Off
		Inline	
Resolution	256	Inline	0#
Base resolution	256	Subtract	Off

Liver registration	Off
Std-Dev-Sag	Off
Std-Dev-Cor	Off
Std-Dev-Tra	Off
Std-Dev-Time	Off
MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On
Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
MapIt	None
Contrasts	1

Sequence

Introduction	On
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Bandwidth	320 Hz/Px
Flow comp.	No
 RF pulse type	Normal
Gradient mode	Whisper
Excitation	Slice-sel.
RF spoiling	On
. •	

\\USER\Feinberglab\Alex\Auditory_Pilot1\b1map_200V_32

Properties		M3	On
Prio Recon	Off	V32	Off
Before measurement		Positioning mode	FIX
After measurement		MSMA	S - C - T
Load to viewer	On	Sagittal	R >> L
Inline movie	Off	Coronal	A >> P
Auto store images	On	Transversal	F >> H
Load to stamp segments	Off	Save uncombined	Off
Load images to graphic	Off	Coil Combine Mode	Adaptive Combine
segments		AutoAlign	
Auto open inline display	Off	Auto Coil Select	Default
Start measurement without	On	Ohim mada	T
further preparation		Shim mode	Tune up
Wait for user to start	Off	Adjust with body coil	Off
Start measurements	single	Confirm freq. adjustment	Off
Davidia a		Assume Silicone	Off
Routine		! Ref. amplitude 1H	200.000 V
Slice group 1	40	Adjustment Tolerance	Auto
Slices	12	Adjust volume	le court :
Dist. factor	100 %	Position	Isocenter
Position	R0.7 A30.3 F0.6	Orientation	Transversal
Orientation	Transversal	Rotation	0.00 deg
Phase enc. dir.	A >> P	R >> L	350 mm
Rotation	0.00 deg	A >> P	263 mm
FoV read	250 mm	F >> H	350 mm
FoV phase	100.0 %	Composing	
Slice thickness	5 mm		
TR	1938 ms	Sequence	
TE 1	14 ms	Contrasts	2
TE 2	14 ms	Bandwidth	260.416667 Hz/Px
Averages	1	T1 Compensation	Mean T1
Filter	None	Mean T1	1000.0 ms
Coil elements	B4;M2,3;T1	Angles	1
Contrast		Amplitude Weighting	Linear
Flip angle 1	90 deg	Scale Bar	Enabled
Flip angle 2	120 deg	Raw Data	Disabled
Flip angle 3	60 deg	Trail Bata	Dicabica
Flip angle 4	135 deg		
Flip angle 5	45 deg		
Measurements	1		
Resolution	ı		
Base resolution	64		
Phase resolution	100 %		
Raw filter	Off		
Geometry Series	Interleaved	<u></u>	
Navigator 1			
Position	L0.0 P35.8 F18.2		
Orientation	Transversal		
Rotation	0.00 deg		
Base size phase	50 mm		
Base size read Thickness	50 mm 50 mm		
Table position	H 0 mm		
Table position	0 mm		
Inline Composing	Off		
System			
T1	On On		
M2	On		

B4

On

 $\verb|\USER\Feinberg| lab\Alex\\| Auditory_Pilot1\\| mp2rage_0.7mm_TR4500$

TA: 7:36 PAT: 3	Voxel size: 0.8×0.8×0.8	mm Rel. SNR: 1.00 USER	: mp2rage_wip602B
Drapartina		Image Filter	Off
Properties	0"	Distortion Corr.	Off
Prio Recon	Off	Prescan Normalize	Off
Before measurement		Normalize	Off
After measurement		B1 filter	Off
Load to viewer	On	Raw filter	Off
Inline movie	Off	Elliptical filter	Off
Auto store images	On	Emplical filler	Oli
Load to stamp segments	Off	Geometry	
Load images to graphic	Off	Multi-slice mode	Single shot
segments		Series	Interleaved
Auto open inline display	Off		
Start measurement without	On	Table position	
	Oli	Table position	Н
further preparation		Table position	0 mm
Wait for user to start	On .	Inline Composing	Off
Start measurements	single	System	
Routine		T1	On
Slab group 1		M2	On
Slabs	1	B4	On
Dist. factor	50 %	M3	On
Position	L1.2 A28.3 F30.2		_
Orientation		V32	Off
	Sagittal	Positioning mode	FIX
Phase enc. dir.	H >> F	MSMA	S - C - T
Rotation	90.00 deg		R >> L
Phase oversampling	0 %	Sagittal Coronal	A >> P
Slice oversampling	8.3 %		
Slices per slab	192	Transversal	F >> H
FoV read	200 mm	Save uncombined	Off
FoV phase	90.6 %	Coil Combine Mode	Adaptive Combine
Slice thickness	0.80 mm	AutoAlign	
TR	4500 ms	Auto Coil Select	Default
TE	3.33 ms	Shim mode	Standard
Averages	1	Adjust with body coil	Off
Concatenations	1	Confirm freq. adjustment	Off
Filter	None	Assume Silicone	Off
Coil elements	B4;M2,3;T1	! Ref. amplitude 1H	230.000 V
No. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Adjustment Tolerance	Auto
Contrast		Adjust volume	71010
Magn. preparation	Non-sel. IR	! Position	L1.9 A24.9 F9.3
TI 1	1000 ms		
TI 2	3200 ms	! Orientation	Sagittal
Flip angle 1	4 deg	! Rotation	0.00 deg
Flip angle 2	4 deg	! F >> H	108 mm
Fat suppr.	Water excit. fast	! A >> P	160 mm
Water suppr.	None	! R >> L	127 mm
2nd Inversion-Contrast	On	Dhysia	
		Physio 1st Signal/Mode	None
Averaging mode	Long term		
Reconstruction	Magnitude	Dark blood	Off
Measurements	1	Peen control	Off
Multiple series	Each measurement	Resp. control	Oli
Resolution		Inline	
Base resolution	256	Subtract	Off
Phase resolution	100 %	Std-Dev-Sag	Off
Slice resolution	100 %	Std-Dev-Cor	Off
Phase partial Fourier	Off	Std-Dev-Tra	Off
		Std-Dev-Time	Off
Slice partial Fourier	6/8	MIP-Sag	Off
Interpolation	Off	MIP-Cor	Off
PAT mode	GRAPPA		_
		MIP-Tra	Off
Accel. factor PE	3	MIP-Time	Off
Ref. lines PE	36	Save original images	On
		•	
Accel. factor 3D Reference scan mode	1 Integrated		

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Off
Contrasts	1
Bandwidth	200 Hz/Px
Flow comp.	Slice
Echo spacing	8.1 ms
RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On
FFT Scale Factor	200 %
Line/Partition Swap	Off
Homodyne Phase Filter	Off
Flat Image	On
T1 Map	On
Division Image	Off
ExtInvPulseOn	On
OffResFreqInv	0
Invflipangle	970

\\USER\Feinberglab\Alex\Auditor\	/ Pilot1\GF 1mr	n MB2IPAT3	nf5 420i n+f
1100ETXII CIIIDCIGIADVAICXVAUGILOI			PIO TEUI PII

TA: 7:17 PAT: 3 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	H
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments		M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
	C	Transversal	F >> H
Routine		- Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	30	Auto Coil Select	Default
Dist. factor	0 %		
Position	L1.4 A31.7 F4.9	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	200 mm	Adjustment Tolerance	Auto
FoV phase	91.0 %	Adjust volume	
Slice thickness	1.00 mm	Position	L1.4 A31.7 F4.9
TR	1000 ms	Orientation	Transversal
TE	22.8 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	200 mm
Filter	None	A >> P	182 mm
Coil elements	B4;M2,3;T1	F >> H	30 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	50 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	420	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
•	.	Paradigm size	20
Resolution		- Meas[1]	Baseline
Base resolution	200	Meas[2]	Baseline
Phase resolution	100 %	Meas[3]	Baseline
Phase partial Fourier	5/8	Meas[4]	Baseline
Interpolation	Off	Meas[4] Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	3	Meas[7]	Baseline Baseline
Ref. lines PE	3 48	Meas[8]	Baseline
	GRE		
Reference scan mode	GRE	Meas[9]	Baseline
Distortion Corr.	Off	Meas[10]	Baseline Activo
Prescan Normalize	Off	Meas[11]	Active
Raw filter	On	Meas[12]	Active
Elliptical filter	Off	Meas[13]	Active
•		Meas[14]	Active
Hamming	Off		/\ ctu / c
Hamming	Off	Meas[15]	Active
Geometry		Meas[16]	Active
Geometry Multi-slice mode	Interleaved	Meas[16] Meas[17]	Active Active
Geometry		Meas[16]	Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Seq	IIIA	nce
OCG	luc	

1 4 1 4	0"
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1250 Hz/Px No Off 1 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 182 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 0 1/FoV 0 0 0 0 1 0 0 O O O Off Off Off Off Off Off Off O

\\USFR\Feinberglab\Alex\Auditory	Pilot1\GF 1mm	n MR2IPAT3 nf5 612i n+f+s	

TA: 10:29 PAT: 3 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	Custom	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments		M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation	.	MSMA	S-C-T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
	5.1.g.5	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1			
Slices	30	AutoAlign Auto Coil Select	Default
Dist. factor	0 %	Auto Coli Select	Delauit
Position	L1.4 A31.7 F4.9	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	200 mm	Adjustment Tolerance	Auto
FoV phase	91.0 %	Adjust volume	71010
Slice thickness	1.00 mm	Position	L1.4 A31.7 F4.9
TR	1000 ms	Orientation	Transversal
TE	22.8 ms	Rotation	
Multi-band accel. factor	2	Rotation R >> L	0.00 deg 200 mm
Filter	None		
Coil elements	B4;M2,3;T1	A >> P	182 mm
	D4,IVIZ,3,1 I	F>> H	30 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	50 dog		Off
. •	50 deg		
Fat suppr.	Fat sat.	GLM Statistics	
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Fat suppr. Averaging mode	Fat sat. Long term	Dynamic t-maps Starting ignore meas	Off 0
Fat suppr. Averaging mode Reconstruction	Fat sat. Long term Magnitude	Dynamic t-maps Starting ignore meas Ignore after transition	Off 0 0
Fat suppr. Averaging mode Reconstruction Measurements	Fat sat. Long term Magnitude 612	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states	Off 0 0 On
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR	Fat sat. Long term Magnitude 612 0 ms	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter	Off 0 0 On On
Fat suppr. Averaging mode Reconstruction Measurements	Fat sat. Long term Magnitude 612	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold	Off 0 0 On On 4.00
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR	Fat sat. Long term Magnitude 612 0 ms	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size	Off 0 0 On On 4.00 20
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution	Fat sat. Long term Magnitude 612 0 ms	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1]	Off 0 0 On On 4.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution	Fat sat. Long term Magnitude 612 0 ms Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2]	Off 0 0 On On 4.00 20 Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution	Fat sat. Long term Magnitude 612 0 ms Off 200 100 %	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3]	Off 0 0 On On 4.00 20 Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4]	Off 0 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution	Fat sat. Long term Magnitude 612 0 ms Off 200 100 %	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3]	Off 0 0 On On 4.00 20 Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4]	Off 0 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8 Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	Off 0 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8 Off GRAPPA	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6]	Off 0 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8 Off GRAPPA 3	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	Off 0 0 0 On On 4.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	Off 0 0 0 On On 4.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[9]	Off 0 0 0 On On 4.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	Off 0 0 0 On On 4.00 20 Baseline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off Off On	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[11] Meas[12]	Off 0 0 0 On On 4.00 20 Baseline Active Active
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13]	Off 0 0 0 On On 4.00 20 Baseline Active Active Active
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off Off On	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14]	Off 0 0 On On A.00 20 Baseline Bateline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15]	Off 0 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[15] Meas[15] Meas[15] Meas[16]	Off 0 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline
Fat suppr. Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	Fat sat. Long term Magnitude 612 0 ms Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off On Off	Dynamic t-maps Starting ignore meas Ignore after transition Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[12] Meas[13] Meas[14] Meas[14] Meas[15]	Off 0 0 0 On On 4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing Echo spacing	Off 1250 Hz/Px No Off 1 ms
SIR accel. factor EPI factor Gradient mode RF spoiling	1 182 Normal Off
Excite pulse duration Slice multiplier Multi-band PE shift zBlip scheme MB kernel size MB knockout band No. of interleaved TEs RF pulse shape EPI noise scans EPI full reference scan Single-band images MB RF phase scramble SENSE1 coil combine Log physiology to file Invert RO/PE polarity Save reduced raw data Readout slice trace Disable ramp sampling PF omits higher k-space Online multi-band recon. FFT scale factor GRE iPAT ref. FA Send B1 shim trigger Triggering scheme Starting ignore meas Paradigm size Multiplier Step [1] Step [2]	3640 us 1 0 1/FoV 0 0 0 0 1 0 0 On Off Off Off Off Off Off Off Off Off

\\USER\Feinberglab\Alex\Auditor\	Pilot1\GF	1mm	MB2IPAT3	nf5	360i	TIMITb5
(OCEIVI CILIDOI GIAD VIICX VIAGILOI)	1 110(1)(0)			PIO	0001	1 111111 1 20

TA: 6:17 PAT: 3 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	System	
Inline movie	Off	System T1	On
Auto store images	On	M2	On
Load to stamp segments	Off	B4	On
Load images to graphic	Off	M3	On
segments		V32	Off
Auto open inline display	Off	V 32	
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	30	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	L1.4 A31.7 F4.9	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	200 mm	Adjustment Tolerance	Auto
FoV phase	91.0 %	Adjust volume	, 1010
Slice thickness	1.00 mm	Position	L1.4 A31.7 F4.9
TR	1000 ms	Orientation	Transversal
TE	22.8 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	200 mm
Filter	None	A >> P	182 mm
Coil elements	B4;M2,3;T1	F >> H	30 mm
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None		
Flip angle	50 deg	BOLD	0"
Fat suppr.	Fat sat.	GLM Statistics	Off
Avoraging mode	Long term	Dynamic t-maps	Off
Averaging mode Reconstruction	Magnitude	Starting ignore meas	0
Measurements	360	Ignore after transition Model transition states	0 On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
•	J	Paradigm size	20
Resolution		— Meas[1]	Baseline
Base resolution	200	Meas[2]	Baseline
Phase resolution	100 %	Meas[3]	Baseline
Phase partial Fourier	5/8	Meas[4]	Baseline
Interpolation	Off	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	3	Meas[7]	Baseline
Ref. lines PE	48	Meas[8]	Baseline
Reference scan mode			Baseline
	GRE	Meas[9]	Dasellile
D: (() C			Baseline
Distortion Corr.	Off	Meas[9] Meas[10] Meas[11]	
Prescan Normalize	Off Off	Meas[10] Meas[11]	Baseline
Prescan Normalize Raw filter	Off Off On	Meas[10]	Baseline Active
Prescan Normalize Raw filter Elliptical filter	Off Off On Off	Meas[10] Meas[11] Meas[12]	Baseline Active Active
Prescan Normalize Raw filter	Off Off On	Meas[10] Meas[11] Meas[12] Meas[13]	Baseline Active Active Active
Prescan Normalize Raw filter Elliptical filter	Off Off On Off	Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	Baseline Active Active Active Active
Prescan Normalize Raw filter Elliptical filter Hamming	Off Off On Off	Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	Baseline Active Active Active Active Active Active
Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Off Off On Off Off	Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Baseline Active Active Active Active Active Active Active Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction	Off
Bandwidth	1250 Hz/Px
Flow comp.	No
Free echo spacing	Off
Echo spacing	1 ms
SIR accel. factor	1
EPI factor	182
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	3640 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0
Single-band images	On
MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.02
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1
Step [1]	1
Step [2]	0

TA: 6:17 PAT: 3 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	1	
Inline movie	Off	System	
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments	-	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation	.	MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
	o.i.ig.o	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1			
Slices	30	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	L1.4 A31.7 F4.9	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	200 mm	Adjustment Tolerance	Auto
FoV phase	91.0 %	Adjust volume	71010
Slice thickness	1.00 mm	Position	L1.4 A31.7 F4.9
TR	1000 ms	Orientation	Transversal
TE	22.8 ms	Rotation	
Multi-band accel. factor	2	R >> L	0.00 deg 200 mm
Filter	None		
Coil elements	B4;M2,3;T1	A >> P	182 mm
	D4,IVIZ,3,1 I	F >> H	30 mm
Contrast MTC	Off	Physio	None
Magn. preparation	None	1st Signal/Mode	none
Flip angle	50 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
- Γαι δυρρι.	rai sai.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	360	Model transition states	On
Delay in TR	0 ms		
Multiple series		l Lemp, highpass filter	()n
•		Temp. highpass filter Threshold	On 4 00
L cooluition	Off	Threshold	4.00
	Off	Threshold Paradigm size	4.00 20
Base resolution	Off 200	Threshold Paradigm size Meas[1]	4.00 20 Baseline
Base resolution Phase resolution	Off 200 100 %	Threshold Paradigm size — Meas[1] Meas[2]	4.00 20 Baseline Baseline
Base resolution Phase resolution Phase partial Fourier	Off 200 100 % 5/8	Threshold Paradigm size — Meas[1] Meas[2] Meas[3]	4.00 20 Baseline Baseline Baseline
Base resolution Phase resolution	Off 200 100 %	Threshold Paradigm size — Meas[1] Meas[2] Meas[3] Meas[4]	4.00 20 Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation	Off 200 100 % 5/8 Off	Threshold Paradigm size — Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode	Off 200 100 % 5/8 Off GRAPPA	Threshold Paradigm size — Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6]	4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	Off 200 100 % 5/8 Off GRAPPA 3	Threshold Paradigm size — Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE	Off 200 100 % 5/8 Off GRAPPA 3 48	Threshold Paradigm size — Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	Off 200 100 % 5/8 Off GRAPPA 3	Threshold Paradigm size — Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9]	4.00 20 Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode	Off 200 100 % 5/8 Off GRAPPA 3 48 GRE	Threshold Paradigm size — Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10]	4.00 20 Baseline
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	Off 200 100 % 5/8 Off GRAPPA 3 48 GRE	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	4.00 20 Baseline Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	4.00 20 Baseline Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	4.00 20 Baseline Bateline Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off Off On Off	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	4.00 20 Baseline Active Active Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	4.00 20 Baseline Bateline Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off Off On Off	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	4.00 20 Baseline Active Active Active
Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter	Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off Off On Off	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline Active Active Active Active
Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Off 200 100 % 5/8 Off GRAPPA 3 48 GRE Off Off Off On Off	Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[15] Meas[16]	4.00 20 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Bateline Bateline Bateline Bateline Bateline Bateline Bateline Bateline Bateline Active Active Active Active Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence	
Introduction	Off
Bandwidth	1250 Hz/Px
Flow comp.	No Off
Free echo spacing Echo spacing	1 ms
	1 1115
SIR accel. factor	1
EPI factor	182
Gradient mode	Normal
RF spoiling	Off
Excite pulse duration	3640 us
Slice multiplier	1
Multi-band PE shift	0 1/FoV
zBlip scheme	0
MB kernel size	0
MB knockout band	0
No. of interleaved TEs	0
RF pulse shape	1
EPI noise scans	0
EPI full reference scan	0 On
Single-band images MB RF phase scramble	Off
SENSE1 coil combine	Off
Log physiology to file	Off
Invert RO/PE polarity	Off
Save reduced raw data	Off
Readout slice trace	Off
Disable ramp sampling	Off
PF omits higher k-space	Off
Online multi-band recon.	Online
FFT scale factor	0.02
GRE iPAT ref. FA	12.0 deg
Send B1 shim trigger	Never
Triggering scheme	Standard
Starting ignore meas	0
Paradigm size	2
Multiplier	1 1
Step [1] Step [2]	0
Oteb [2]	U

\\USER\Feinberglab\Alex\Auditory	Pilot1\GF_n8mm	MR2IPAT3 n	f5 360i	TIMITh5
	I HOLINGE POITHI		13 3001	IIIVIIII

TA: 6:18 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: AV_ep2d_bold_sd_20140727

Properties		Special sat.	None
Prio Recon	Off	Table position	H
Before measurement		Table position	0 mm
After measurement		Inline Composing	Off
Load to viewer	On	Custom	
Inline movie	Off	System	0.5
Auto store images	On	T1	On
Load to stamp segments	Off	M2	On
Load images to graphic	Off	B4	On
segments		M3	On O"
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	FIX
further preparation		MSMA	S - C - T
Wait for user to start	Off	Sagittal	R >> L
Start measurements	single	Coronal	A >> P
	5g.5	Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	30	Auto Coil Select	 Default
Dist. factor	0 %	Auto Con Select	Delauli
Position	L1.4 A31.7 F4.9	Shim mode	Standard
Orientation	Transversal	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	On
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	! Ref. amplitude 1H	170.000 V
FoV read	160 mm	Adjustment Tolerance	Auto
FoV phase	91.0 %	Adjust volume	, 13.10
Slice thickness	0.80 mm	Position	L1.4 A31.7 F4.9
TR	1000 ms	Orientation	Transversal
TE	22.8 ms	Rotation	0.00 deg
Multi-band accel. factor	2	R >> L	160 mm
Filter	None	A >> P	146 mm
Coil elements	B4;M2,3;T1	F >> H	25 mm
	D-4,1012,0,1 1	I	25 111111
Contrast		Physio	
MTC	Off	1st Signal/Mode	None
Magn. preparation	None	BOLD	
Flip angle	50 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude		0
Measurements	360	Ignore after transition Model transition states	On
Delay in TR	0 ms		
Multiple series	Off	Temp. highpass filter	On 4.00
Multiple selles	Oil	Threshold	4.00
Resolution		Paradigm size	20
Base resolution	200	- Meas[1]	Baseline
Phase resolution	100 %	Meas[2]	Baseline
Phase partial Fourier	5/8	Meas[3]	Baseline
Interpolation	Off	Meas[4]	Baseline
		Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	3	Meas[7]	Baseline
Ref. lines PE	48	Meas[8]	Baseline
Reference scan mode		Meas[9]	Baseline
	GRE		
Distortion Corr		Meas[10]	Baseline
Distortion Corr.	Off		Baseline Active
Prescan Normalize	Off Off	Meas[10]	
Prescan Normalize Raw filter	Off Off On	Meas[10] Meas[11]	Active
Prescan Normalize Raw filter Elliptical filter	Off Off On Off	Meas[10] Meas[11] Meas[12]	Active Active
Prescan Normalize Raw filter	Off Off On	Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	Active Active Active
Prescan Normalize Raw filter Elliptical filter Hamming	Off Off On Off	Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	Active Active Active Active
Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Off Off On Off Off	Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Active Active Active Active Active Active
Prescan Normalize Raw filter Elliptical filter Hamming	Off Off On Off	Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	Active Active Active Active Active Active Active

Meas[20]	Active
Motion correction	Off
Spatial filter	Off

Sequence

Sequence	
Introduction Bandwidth Flow comp. Free echo spacing	Off 1250 Hz/Px No Off
Bandwidth Flow comp.	1250 Hz/Px No
Multiplier Step [1] Step [2]	1 1 0

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	AT: 2 Voxel size: 0.7×	k0.7×1.5 mm Rel. SNR: 1.00 US	SER: VASO_116
-		PAT mode	GRAPPA
Properties		Accel, factor PE	2
Prio Recon	Off	Ref. lines PE	36
Before measurement		Accel, factor 3D	1
After measurement	_	Ref. lines 3D	8
Load to viewer	On	Reference scan mode	Separate
Inline movie	Off		
Auto store images	On	Prescan Normalize	Off
Load to stamp segments	Off	Raw filter	Off
Load images to graphic	Off	Elliptical filter	Off
segments	0"	Hamming	Off
Auto open inline display	Off	Geometry	
Start measurement without	On	Multi-slice mode	Interleaved
further preparation	0"	Series	Ascending
Wait for user to start	Off		
Start measurements	single	Special sat.	Parallel F
Routine		Gap	25.0 mm
Slab group 1		——— Thickness	100 mm
Slabs	1	Table position	Н
Dist. factor	50 %	Table position	0 mm
Position	R37.8 A6.9 H16.3	Inline Composing	Off
Orientation	T > S25.8 > C-11.1	1	
Phase enc. dir.	R >> L	System	
Rotation	70.00 deg	T1	On
Phase oversampling	0 %	M2	On
Slice oversampling	0.0 %	B4	On
Slices per slab	8	M3	On O"
FoV read	32.8 mm	V32	Off
FoV phase	300.0 %	Positioning mode	FIX
Slice thickness	1.50 mm	MSMA	S - C - T
TR	1500.00 ms	Sagittal	R >> L
TE	24 ms	Coronal	A >> P
Averages	1	Transversal	F >> H
Concatenations	1	Save uncombined	Off
Filter	None	Coil Combine Mode	Sum of Squares
Coil elements	B4;M2,3;T1	AutoAlign	
Contrast		Auto Coil Select	Default
Perfusion mode	Picore Q2TIPS	China manda	Ctondord
TI2	900 ms	Shim mode	Standard
TI1	50 ms	Adjust with body coil	Off Off
TI1s	50 ms	Confirm freq. adjustment Assume Silicone	Off
Flip angle	26 deg		Off 230.000 V
Fat suppr.	Fat sat.	! Ref. amplitude 1H	
Fat sat. mode	Strong	Adjust volume	Auto
		Adjust volume Position	R37.8 A6.9 H16.3
Averaging mode	Long term	Orientation	T > S25.8 > C-11.1
Reconstruction	Magn./Phase	Rotation	160.00 deg
Measurements	420	R >> L	99 mm
Delay in TR	0 ms	A >> P	33 mm
Multiple series	Off	F>> H	12 mm
Perfusion mode	PICORE Q2T		12 111111
Inversion time 1	50 ms	Physio	
Saturation stop time	50 ms	1st Signal/Mode	None
Inversion time 2	900.0 ms	BOLD	
Flow limit	100.0 cm/s	Motion correction	Off
	100.0 011/0		Off
Resolution		Spatial filter	Oii
Base resolution	44	Sequence	
Phase resolution	100 %	Introduction	On
Slice resolution	100 %	Dimension	3D
Phase partial Fourier	6/8	Reordering	Linear
Slice partial Fourier	Off	Contrasts	1
Interpolation	Off	Bandwidth	1062 Hz/Px
		Free echo spacing	Off

Echo spacing	1.07 ms
EPI factor RF pulse type Gradient mode Excitation RF spoiling	132 Normal Normal Slab-sel. On
Ampl BWDTH ph.skip 4 Robert (the one) use Ernst angle Maxwell Correction log physio files FFT scale dummy prepscan time z shim RF duration RF BWTP Renzo: Delta TI EFFECTIVE TR PatPartitions EPI phase correction PAT refscan mode FlashRef BaseRes FlashRef BW FlashRef FA use CAIPI	120 150 3.1kHz 30 Off Off Off Off 1.00 3 s 0.00 mT/m*ms 2560 us 25.0 71 ms 12000 ms 8 local Flash 44 136 Hz/px 5000 us 5 deg Off

TA: 4:16 PAT: 3	3 Voxel size: 0.8×0.8×1.0 mm	. •	t: mp2rage_wip602B
Proportion		Image Filter	Off
Properties		Distortion Corr.	Off
Prio Recon	Off	Prescan Normalize	Off
Before measurement		Normalize	Off
After measurement		B1 filter	Off
Load to viewer	On	Raw filter	Off
Inline movie	Off		Off
Auto store images	On	Elliptical filter	Oli
Load to stamp segments	Off	Geometry	
Load images to graphic	Off	Multi-slice mode	Single shot
segments		Series	Interleaved
Auto open inline display	Off		
1			
Start measurement without	On	Table position	Н
further preparation	_	Table position	0 mm
Wait for user to start	On	Inline Composing	Off
Start measurements	single	0	
Doubles		System	
Routine		T1	On
Slab group 1		M2	On
Slabs	1	B4	On
Dist. factor	50 %	M3	On
Position	R3.0 A3.8 F29.8	V32	Off
Orientation	T > C34.8		
Phase enc. dir.	R >> L	Positioning mode	FIX
Rotation	90.00 deg	MSMA	S - C - T
		Sagittal	R >> L
Phase oversampling	0 %	Coronal	A >> P
Slice oversampling	11.1 %	Transversal	F >> H
Slices per slab	72	Save uncombined	Off
FoV read	154 mm		<u> </u>
FoV phase	100.0 %	Coil Combine Mode	Adaptive Combine
Slice thickness	1.00 mm	AutoAlign	
TR	3530 ms	Auto Coil Select	Default
TE	3.33 ms		0
		Shim mode	Standard
Averages	1	Adjust with body coil	Off
Concatenations	1	Confirm freq. adjustment	Off
Filter	None	Assume Silicone	Off
Coil elements	B4;M2,3;T1	! Ref. amplitude 1H	230.000 V
Operation of		Adjustment Tolerance	Auto
Contrast		Adjust volume	, 13.10
Magn. preparation	Non-sel. IR	Position	R3.0 A3.8 F29.8
TI 1	1000 ms		
TI 2	3200 ms	Orientation	T > C34.8
Flip angle 1	4 deg	Rotation	90.00 deg
Flip angle 2	4 deg	A >> P	154 mm
Fat suppr.	Water excit. fast	R >> L	154 mm
Water suppr.	None	F >> H	72 mm
2nd Inversion-Contrast	On	Dhysia	
2110 IIIVersion-Contrast		Physio	
Averaging mode	Long term	1st Signal/Mode	None
Reconstruction	Magnitude	Dark blood	Off
Measurements	1	Dark blood	OII
	•	Resp. control	Off
Multiple series	Each measurement	•	
Resolution		Inline	
Base resolution	192	Subtract	Off
Phase resolution	100 %	Std-Dev-Sag	Off
		Std-Dev-Cor	Off
Slice resolution	100 %	Std-Dev-Tra	Off
Phase partial Fourier	6/8		
Slice partial Fourier	6/8	Std-Dev-Time	Off
Interpolation	Off	MIP-Sag	Off
	00.4004	MIP-Cor	Off
PAT mode	GRAPPA	MIP-Tra	Off
Accel. factor PE	3	MIP-Time	Off
Ref. lines PE	36	Save original images	On
Accel. factor 3D	1		
Reference scan mode	Integrated	Coguenee	
	· · · · · · · · · · · · · · · · · · ·	Sequence	

Introduction	On
Dimension	3D
Elliptical scanning	Off
Asymmetric echo	Off
Contrasts	1
Bandwidth	200 Hz/Px
Flow comp.	Slice
Echo spacing	8.1 ms
RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On
FFT Scale Factor	200 %
Line/Partition Swap	Off
Homodyne Phase Filter	Off
Flat Image	On
T1 Map	On
Division Image	Off
ExtInvPulseOn	On
OffResFreqInv	0
Invflipangle	970

\\USER'	\Feinberglab\Alex\GV-0319\	BP_grase_clean_VASO_V1	0t_noClip
A: 12:03 PAT: Off Vo	oxel size: 0.8×0.8×1.5 mm R	el. SNR: 1.00 USER: BP_g	rase_clean_VASO_V10_no0
Properties		Position	L4.6 P8.1 H13.9
Prio Recon	Off	Orientation	C > S24.8 > T10.3
Before measurement		Special sat.	None
After measurement		Table position	Н
Load to viewer	On	Table position	0 mm
Inline movie	Off	Inline Composing	Off
Auto store images	On		
Load to stamp segments	Off	System	
Load images to graphic	Off	T1	On
segments		M2	On
Auto open inline display	Off	B4	On
Start measurement without	On	M3	On Off
further preparation		V32	Off
Wait for user to start	Off	Positioning mode	FIX
Start measurements	single	MSMA	S - C - T
Navatina a	C	Sagittal	R >> L
Routine		— Coronal	A >> P
Slab group 1		Transversal	F >> H
Slabs	1	Save uncombined	Off
Dist. factor	0 %	Coil Combine Mode	Adaptive Combine
Position	R40.0 A9.4 H29.7	AutoAlign	
Orientation	T > S40.5 > C-3.3	Auto Coil Select	Default
Phase enc. dir.	A >> P		
Rotation	-20.00 deg	Shim mode	Standard
Phase oversampling	0 %	Adjust with body coil	Off
Slice oversampling	0.0 %	Confirm freq. adjustment	Off
Slices per slab	8	Assume Silicone	Off
FoV read	99 mm	! Ref. amplitude 1H	220.000 V
FoV phase	25.8 %	Adjustment Tolerance	Auto
Slice thickness	1.5 mm	Adjust volume	
TR	3000 ms	Position	R40.0 A9.4 H29.7
TE	45.9 ms	Orientation	T > S40.5 > C-3.3
Averages	1	Rotation	-20.00 deg
Concatenations	T None	R >> L	99 mm
Filter	None	A >> P	26 mm
Coil elements	B4;M2,3;T1	F >> H	12 mm
Contrast Magn, proparation	Non-sel, IR	Physio	Nana
Magn. preparation	Non-sei. IR 1100 ms	1st Signal/Mode	None
TI Flip angle	165 deg	Composing	
Filp angle Fat suppr.	Fat sat.		
		Sequence	0"
Fat sat. mode	Strong	Introduction	Off
Averaging mode	Long term	Dimension	3D
Reconstruction	Magnitude		
Measurements	241		
Pause after meas.	0.0 s		
Multiple series	Off	Echo spacing	1.1 ms
·		Turbo factor	5
Reconstruction Measurements Pause after meas.	Magnitude 241 0.0 s	Reordering Contrasts Bandwidth Echo spacing	Centric 2 1052 Hz/Px 1.1 ms

Load to viewer	On	Table position	0 mm
			0 mm
Inline movie	Off	Inline Composing	Off
Auto store images	On O"	System	
Load to stamp segments	Off	T1	On
Load images to graphic	Off	M2	On
segments		B4	On
Auto open inline display	Off	M3	On
Start measurement without	On	V32	Off
further preparation			
Wait for user to start	Off	Positioning mode	FIX
Start measurements	single	MSMA	S - C - T
Routine		Sagittal	R >> L
Slab group 1		Coronal	A >> P
Slabs	1	Transversal	F >> H
	1 0 %	Save uncombined	Off
Dist. factor		Coil Combine Mode	Adaptive Combine
Position	R40.0 A9.4 H29.7	AutoAlign	·
Orientation	T > S40.5 > C-3.3	Auto Coil Select	Default
Phase enc. dir.	A >> P		
Rotation	-20.00 deg	Shim mode	Standard
Phase oversampling	0 %	Adjust with body coil	Off
Slice oversampling	0.0 %	Confirm freq. adjustment	Off
Slices per slab	8	Assume Silicone	Off
FoV read	99 mm	! Ref. amplitude 1H	220.000 V
FoV phase	25.8 %	Adjustment Tolerance	Auto
Slice thickness	1.5 mm	Adjust volume	
TR	3000 ms	Position	R40.0 A9.4 H29.7
TE	45.9 ms	Orientation	T > S40.5 > C-3.3
Averages	1	Rotation	-20.00 deg
Concatenations	1	R >> L	99 mm
Filter	None	A >> P	26 mm
Coil elements	B4;M2,3;T1	F >> H	12 mm
Contrast		Physio	
			None
Magn. preparation	Non-sel. IR	1st Signal/Mode	140110
TI	1100 ms		140110
TI Flip angle	1100 ms 165 deg	1st Signal/Mode Composing	
TI Flip angle Fat suppr.	1100 ms 165 deg Fat sat.		Trono
TI Flip angle	1100 ms 165 deg	Composing	Off
TI Flip angle Fat suppr. Fat sat. mode	1100 ms 165 deg Fat sat. Strong	Composing Sequence	
TI Flip angle Fat suppr. Fat sat. mode Averaging mode	1100 ms 165 deg Fat sat. Strong Long term	Composing Sequence Introduction Dimension	Off
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction	1100 ms 165 deg Fat sat. Strong Long term Magnitude	Composing Sequence Introduction	Off 3D
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241	Composing Sequence Introduction Dimension Reordering Contrasts	Off 3D Centric 2
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas.	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s	Composing Sequence Introduction Dimension Reordering Contrasts Bandwidth	Off 3D Centric
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241	Composing Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing	Off 3D Centric 2 1052 Hz/Px 1.1 ms
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas.	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s	Composing Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor	Off 3D Centric 2 1052 Hz/Px 1.1 ms
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off	Composing Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor	Off 3D Centric 2 1052 Hz/Px 1.1 ms
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s	Composing Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor RF pulse type	Off 3D Centric 2 1052 Hz/Px 1.1 ms 5 34 Normal
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution Base resolution	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off	Composing Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor	Off 3D Centric 2 1052 Hz/Px 1.1 ms
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution Base resolution Phase resolution Slice resolution	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off 132 100 % 100 %	Composing Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor RF pulse type Gradient mode	Off 3D Centric 2 1052 Hz/Px 1.1 ms 5 34 Normal Fast
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution Base resolution Phase resolution Slice resolution Slice partial Fourier	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off 132 100 % 100 % 5/8	Composing Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor RF pulse type Gradient mode BIR4: 2nd segm phase	Off 3D Centric 2 1052 Hz/Px 1.1 ms 5 34 Normal Fast
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution Base resolution Phase resolution Slice partial Fourier Interpolation	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off 132 100 % 100 % 5/8 Off	Composing Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor RF pulse type Gradient mode BIR4: 2nd segm phase BIR4: duration	Off 3D Centric 2 1052 Hz/Px 1.1 ms 5 34 Normal Fast
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution Base resolution Phase resolution Slice resolution Slice partial Fourier	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off 132 100 % 100 % 5/8	Composing Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor RF pulse type Gradient mode BIR4: 2nd segm phase BIR4: duration excite duration	Off 3D Centric 2 1052 Hz/Px 1.1 ms 5 34 Normal Fast 338 5120 2560
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution Base resolution Phase resolution Slice partial Fourier Interpolation PAT mode	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off 132 100 % 100 % 5/8 Off None	Composing Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor RF pulse type Gradient mode BIR4: 2nd segm phase BIR4: duration excite duration refoc duration	Off 3D Centric 2 1052 Hz/Px 1.1 ms 5 34 Normal Fast 338 5120 2560 2560
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution Base resolution Phase resolution Slice resolution Slice partial Fourier Interpolation PAT mode Prescan Normalize	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off 132 100 % 100 % 5/8 Off None Off	Composing Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor RF pulse type Gradient mode BIR4: 2nd segm phase BIR4: duration excite duration refoc duration excite BWTP	Off 3D Centric 2 1052 Hz/Px 1.1 ms 5 34 Normal Fast 338 5120 2560 2560 10.4
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution Base resolution Phase resolution Slice partial Fourier Interpolation PAT mode	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off 132 100 % 100 % 5/8 Off None	Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor RF pulse type Gradient mode BIR4: 2nd segm phase BIR4: duration excite duration refoc duration excite BWTP refoc BWTP	Off 3D Centric 2 1052 Hz/Px 1.1 ms 5 34 Normal Fast 338 5120 2560 2560 10.4 5.2
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution Base resolution Phase resolution Slice resolution Slice partial Fourier Interpolation PAT mode Prescan Normalize	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off 132 100 % 100 % 5/8 Off None Off	Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor RF pulse type Gradient mode BIR4: 2nd segm phase BIR4: duration excite duration refoc duration excite BWTP refoc BWTP phase encoding	Off 3D Centric 2 1052 Hz/Px 1.1 ms 5 34 Normal Fast 338 5120 2560 2560 10.4 5.2 ON
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution Base resolution Phase resolution Slice partial Fourier Interpolation PAT mode Prescan Normalize Raw filter	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off 132 100 % 100 % 5/8 Off None Off	Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor RF pulse type Gradient mode BIR4: 2nd segm phase BIR4: duration excite duration refoc duration excite BWTP refoc BWTP phase encoding Maxwell compensation	Off 3D Centric 2 1052 Hz/Px 1.1 ms 5 34 Normal Fast 338 5120 2560 2560 10.4 5.2 ON
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution Base resolution Phase resolution Slice partial Fourier Interpolation PAT mode Prescan Normalize Raw filter Geometry Series	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off 132 100 % 100 % 5/8 Off None Off	Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor RF pulse type Gradient mode BIR4: 2nd segm phase BIR4: duration excite duration refoc duration excite BWTP refoc BWTP phase encoding	Off 3D Centric 2 1052 Hz/Px 1.1 ms 5 34 Normal Fast 338 5120 2560 2560 10.4 5.2 ON
TI Flip angle Fat suppr. Fat sat. mode Averaging mode Reconstruction Measurements Pause after meas. Multiple series Resolution Base resolution Phase resolution Slice partial Fourier Interpolation PAT mode Prescan Normalize Raw filter Geometry	1100 ms 165 deg Fat sat. Strong Long term Magnitude 241 0.0 s Off 132 100 % 100 % 5/8 Off None Off	Sequence Introduction Dimension Reordering Contrasts Bandwidth Echo spacing Turbo factor EPI factor RF pulse type Gradient mode BIR4: 2nd segm phase BIR4: duration excite duration refoc duration excite BWTP refoc BWTP phase encoding Maxwell compensation	Off 3D Centric 2 1052 Hz/Px 1.1 ms 5 34 Normal Fast 338 5120 2560 2560 10.4 5.2 ON

USER: BP_grase_clean_IV_SH

Voxel size: 0.8×0.8×1.5 mm Rel. SNR: 1.00

TA: 12:03

Properties		Orientation Special sat.	C > S24.8 > T10.3 None
Prio Recon	Off		
Before measurement		Table position	Н
After measurement		Table position	0 mm
Load to viewer	On	Inline Composing	Off
Inline movie	Off		
Auto store images	On	System	
Load to stamp segments	Off	T1	On
Load images to graphic	Off	M2	On
	Oli	B4	On
segments	0"	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On		
further preparation		Positioning mode	FIX
Wait for user to start	Off	MSMA	S - C - T
Start measurements	single	Sagittal	R >> L
Routine		Coronal	A >> P
		Transversal	F >> H
Slab group 1		Save uncombined	Off
Slabs	1	Coil Combine Mode	Adaptive Combine
Dist. factor	0 %	AutoAlign	
Position	R40.0 A9.4 H29.7	Auto Coil Select	Default
Orientation	T > S40.5 > C-3.3	Auto Coli Select	Delauit
Phase enc. dir.	A >> P	Shim mode	Standard
Rotation	-20.00 deg	Adjust with body coil	Off
Phase oversampling	0 %	Confirm freq. adjustment	Off
Slice oversampling	0.0 %	Assume Silicone	Off
Slices per slab	8		
	-	! Ref. amplitude 1H	220.000 V
FoV read	99 mm	Adjustment Tolerance	Auto
FoV phase	25.8 %	Adjust volume	
Slice thickness	1.5 mm	Position	R40.0 A9.4 H29.7
TR	3000 ms	Orientation	T > S40.5 > C-3.3
TE	39.32 ms	Rotation	-20.00 deg
Averages	1	R >> L	99 mm
Concatenations	1	A >> P	26 mm
Filter	None	F >> H	12 mm
Coil elements	B4;M2,3;T1		12 111111
	= ·,···=,o, · ·	Physio	
Contrast		1st Signal/Mode	None
Magn. preparation	None	Composing	
Flip angle	180 deg	Composing	
Fat suppr.	Fat sat.	Sequence	
Fat sat. mode	Strong	Introduction	Off
		Dimension	3D
Averaging mode	Long term		Centric
Reconstruction	Magnitude	Reordering	
Measurements	241	Contrasts	1
Pause after meas.	0.0 s	Bandwidth	1052 Hz/Px
Multiple series	Off	Echo spacing	1.1 ms
•		Turbo factor	5
Resolution		EPI factor	28
Base resolution	132		Normal
Phase resolution	100 %	RF pulse type	
Slice resolution	100 %	Gradient mode	Fast
Slice partial Fourier	5/8	refocussing type	sinc 2560
Interpolation	Off	flip angle excit	90
		phase encoding	ON
PAT mode	None		
Prescan Normalize	Off	Maxwell compensation	Off
	_	ICE program	single
Raw filter	Off	prepscans	0
Geometry		excite duration	2560
Series	Interleaved	refoc duration	2560
		excite BWTP	16.0
Sat. region 1		refoc BWTP	8.0
Thickness	26 mm	Opposite Polarity Crusher	Off
	_		
Position	L4.6 P8.1 H13.9	pre-crusher	40000

post-crusher1	40000
post-crusher2	40000
post-crusher3	40000
post-crusher4	40000

	erglab\Alex\GV-0319\BP_gras		
TA: 12:03 PAT: Off	Voxel size: 0.8×0.8×1.5 mm	Rel. SNR: 1.00 USER:	BP_grase_clean_IV_SH
Properties		Orientation	C > S24.8 > T10.3
Prio Recon	Off	Special sat.	None
Before measurement	Oll	Table position	Н
After measurement		Table position	0 mm
Load to viewer	On	Inline Composing	Off
Inline movie	Off		On
Auto store images	On	System	
Load to stamp segments	Off	T1	On
Load images to graphic	Off	M2	On
segments	Oli	B4	On
Auto open inline display	Off	M3	On
Start measurement without	On	V32	Off
further preparation	OII	Danisianian and	FIV
Wait for user to start	Off	Positioning mode	FIX
		MSMA	S - C - T
Start measurements	single	Sagittal	R >> L
Routine		Coronal	A >> P
Slab group 1		Transversal	F >> H
Slabs	1	Save uncombined	Off
Dist. factor	0 %	Coil Combine Mode	Adaptive Combine
Position	R40.0 A9.4 H29.7	AutoAlign	
Orientation	T > S40.5 > C-3.3	Auto Coil Select	Default
Phase enc. dir.	A >> P	Shim mode	Standard
Rotation	-20.00 deg	Adjust with body coil	Off
Phase oversampling	0 %		
Slice oversampling	0.0 %	Confirm freq. adjustment Assume Silicone	Off Off
Slices per slab	8		
FoV read	99 mm	! Ref. amplitude 1H	220.000 V
FoV phase	25.8 %	Adjustment Tolerance	Auto
Slice thickness		Adjust volume	D 40 0 40 4 1 100 7
TR	1.5 mm 1500 ms	Position	R40.0 A9.4 H29.7
TE		Orientation	T > S40.5 > C-3.3
	36.52 ms	Rotation	-20.00 deg
Averages	1	R >> L	99 mm
Concatenations	1	A >> P	26 mm
Filter	None	F >> H	12 mm
Coil elements	B4;M2,3;T1	Physio	
Contrast		1st Signal/Mode	None
Magn. preparation	None	Composing	
Flip angle	165 deg		
Fat suppr.	Fat sat.	Sequence	
Fat sat. mode	Strong	Introduction	Off
Averaging mode	Long term	Dimension	3D
Reconstruction	Magnitude	Reordering	Centric
Measurements	482	Contrasts	1
Pause after meas.	0.0 s	Bandwidth	1184 Hz/Px
Multiple series	Off	Echo spacing	1 ms
•		Turbo factor	5
Resolution	100	EPI factor	28
Base resolution	132	RF pulse type	Normal
Phase resolution	100 %	Gradient mode	Fast
Slice resolution	100 %		
Slice partial Fourier	5/8	refocussing type	sinc 2560
Interpolation	Off	flip angle excit	90
PAT mode	None	phase encoding	ON
		Maxwell compensation	Off
Prescan Normalize	Off	ICE program	single
Raw filter	Off	prepscans	0
Geometry		excite duration	2560
Series	Interleaved	refoc duration	2560
		excite BWTP	16.0
Sat. region 1		refoc BWTP	8.0
Thickness	26 mm	Opposite Polarity Crusher	Off

Opposite Polarity Crusher

pre-crusher

Off

40000

Thickness

Position

26 mm

L4.6 P8.1 H13.9

post-crusher1 post-crusher2	20000 40000
post-crusher3	20000
post-crusher4	40000

Table of contents

\\USER

```
Feinberglab
       Alex
              24ch fMRI
                      localizer_50V_newcoil
                      b1map_100V_TR1000_RL
                      gFactorMap_100V
                      AV_ep2d_bold_sd1ipat2mb2_pt75mm_tSNR_shimWholeVol
              flow
                      fl_fq_mb2f2_gre_3D_seg
                      fl_fq_mb2f2_gre_3D_seg2
                      svs_mslaser_uhf_15uT
               VASO
                      BOLD_local_1p5
                      ep2d_fid_VASO-1.5x1.5x1.5_1450_noIPAT
                      ep2d_fid_VASO-1.5x1.5x1.5_1350_noIPAT
                      BP_grase_clean_VASO_V07_func_1450
                      localizer_50V_newcoil
                      b1map_100V_TR1000_RL
                      ---32---
                      localizer_200V_nova
                      b1map_200V_32
                      gFactorMap_32
                      AV_ep2d_bold_sd1ipat2mb2_pt5mm_visLoc_32ch
                      AV_ep2d_bold_sd1ipat2mb1_pt75mm_visLoc_32
                      AV_ep2d_bold_sd1ipat2mb2_pt5mm_tSNR_32
                      AV_ep2d_bold_sd1ipat2mb1_pt5mm_tSNR_32
                      AV_ep2d_bold_sd1ipat2mb2_pt75mm_tSNR_32
                      AV_ep2d_bold_sd1ipat2mb1_pt75mm_tSNR_32
                      AV_ep2d_bold_sd1ipat2mb2_1mm_tSNR_32
                      AV_ep2d_bold_sd1ipat2mb1_1mm_tSNR_32
                      ---24---
                      localizer_50V_newcoil
                      b1map_100V_24
                      gFactorMap_24
                      AV_ep2d_bold_sd1ipat2mb2_pt5mm_visLoc_24
                      AV_ep2d_bold_sd1ipat2mb1_pt75mm_visLoc_24
                      AV_ep2d_bold_sd1ipat2mb2_pt5mm_tSNR_24
                      AV_ep2d_bold_sd1ipat2mb1_pt5mm_tSNR_24
                      AV_ep2d_bold_sd1ipat2mb2_pt75mm_tSNR_24
                      AV_ep2d_bold_sd1ipat2mb1_pt75mm_tSNR_24
                      AV_ep2d_bold_sd1ipat1mb2_1mm_tSNR_24
                      AV_ep2d_bold_sd1ipat1mb1_1mm_tSNR_24
                      ---8---
                      localizer_50V_newcoil
                      b1map_100V_8
                      gFactorMap_8
                      AV_ep2d_bold_sd1ipat2mb2_pt5mm_visLoc_8
                      AV_ep2d_bold_sd1ipat2mb1_pt75mm_visLoc_8
                      AV_ep2d_bold_sd1ipat2mb2_pt5mm_tSNR_8
                      AV_ep2d_bold_sd1ipat2mb1_pt5mm_tSNR_8
                      AV_ep2d_bold_sd1ipat2mb2_pt75mm_tSNR_8
                      AV_ep2d_bold_sd1ipat2mb1_pt75mm_tSNR_8
                      AV_ep2d_bold_sd1ipat1mb2_1mm_tSNR_8
                      AV_ep2d_bold_sd1ipat1mb1_1mm_tSNR_8
               CoilComparison JT
                      ---32---
                      localizer_200V_nova
                      b1map_200V_32
                      gFactorMap_32
                      tSNR_32_sd1ipat2mb2_pt5mm_AV_ep2d_bold
                      tSNR_32_sd1ipat2mb1_pt5mm_AV_ep2d_bold
                      tSNR_32_sd1ipat2mb2_pt75mm_AV_ep2d_bold
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Feinberglab
       Alex
               CoilComparison_JT
                      tSNR_32_sd1ipat2mb1_pt75mm_AV_ep2d_bold
                      tSNR_32_sd1ipat2mb2_1mm_AV_ep2d_bold
                      tSNR_32_sd1ipat2mb1_1mm_AV_ep2d_bold
                      visLoc_32ch_sd1ipat2mb2_pt5mm_AV_ep2d_bold
                      visLoc 32ch sd1ipat2mb2 pt5mm AV ep2d bold
                      visLoc 32ch sd1ipat2mb2 pt5mm AV ep2d bold
                      visLoc_32_sd1ipat2mb1_pt75mm_AV_ep2d_bold
              Auditory_PotentialScans
                      localizer_200V_nova
                      b1map_200V_32
                      mp2rage_1mm_TR4000
                      -- best match to Moerel 2018 --
                      -- longer TE and/or PF necessary --
                      -- due to slower gradients --
                      GE_pt8mm_MB2IPAT3_wGap_pf5
                      GE_pt8mm_MB2IPAT3_wGap_pf6
                      GE_pt8mm_MB2IPAT4_wGap_pf7
                      GE_pt8mm_MB2IPAT4_wGap_pf7_altFOV
                      GRASE pt8mm wGap
                      -- fast TR comparisons at 1p5 --
                      -- cf Denison 2014 and Vu 2016 --
                      -- tSNR comparisons --
                      GE_1pt5mm_MB5IPAT3_500ms
                      GE_1pt5mm_MB1IPAT3_2000ms
                      GE_1pt5mm_MB5IPAT3_2000ms
                      -- sub Second 1mm --
                      GE_1mm_MB2IPAT4_pf7
                      --for piloting--
                      GE_1mm_MB2IPAT3_pf5_420i_p+f
                      GE_1mm_MB2IPAT3_pf5_612i_p+f+s
                      GE_1mm_MB2IPAT3_pf5_360i_TIMITb5
                      GE_1mm_MB2IPAT3_pf5_360i_TIMITb6
                      GE_p8mm_MB2IPAT3_pf5_360i_TIMITb5
                      mp2rage_0.7mm_TR4500
                      --tsnr--
                      GE_1mm_MB2IPAT3_pf5_420i_p+f
                      GE_1mm_MB2IPAT3_pf6_420i_p+f
                      GE_1mm_MB2IPAT4_pf7_420i_p+f
              BWTP
                      ep3d_epi_backup_CAnew
              Auditory_Pilot1
                      localizer_200V_nova
                      b1map_200V_32
                      mp2rage_0.7mm_TR4500
                      GE_1mm_MB2IPAT3_pf5_420i_p+f
                      GE 1mm MB2IPAT3 pf5 612i p+f+s
                      GE_1mm_MB2IPAT3_pf5_360i_TIMITb5
                      GE_1mm_MB2IPAT3_pf5_360i_TIMITb6
                      GE_p8mm_MB2IPAT3_pf5_360i_TIMITb5
                      Pause
                      VASO_116_phantom_420i_p+f
                      mp2rage_1mm_TR4500
              GV-0319
                      --check FOV is 99x25.8% and Matrix is 132x34 & b/w is 1052--
                      BP_grase_clean_VASO_V10t_noClip
                      BP_grase_clean_IV_FA180_Regular_SH
                      BP_grase_clean_IV_FA165_nSTE_CurrentPT_SH
                      BP_grase_clean_IV_TE27_Par20_STE_SH
```