\\USER\Alessandra Pizzuti\AOM_VASO_LAYERS\20210705_JOH\advanced_localicer_V1
TA: 1:00 PAT: Off Voxel size: 1.0×1.0×5.0 mm Rel. SNR: 1.00 SIEMENS: tfl

Properties		PAT mode	None
Prio Recon	Off	Image Filter	Off
Before measurement		Distortion Corr.	Off
After measurement		Prescan Normalize	Off
Load to viewer	On	Normalize	Off
Inline movie	Off	B1 filter	Off
Auto store images	On	1 -	
Load to stamp segments	Off	Raw filter	Off
Load images to graphic	Off	Elliptical filter	Off
segments		Geometry	
Auto open inline display	Off	Multi-slice mode	Single shot
Start measurement without	On	Series	Interleaved
further preparation			
Wait for user to start	Off	Table position	Н
Start measurements	single	Table position	0 mm
	3	Inline Composing	Off
Routine			Oli
Slice group 1		System	
Slices	9	V32	Off
Dist. factor	80 %	A32	On
Position	L0.0 A27.3 F14.3		
Orientation	Sagittal	Positioning mode	REF
Phase enc. dir.	A >> P	MSMA	S - C - T
Rotation	0.00 deg	Sagittal	R >> L
Slice group 2	-	Coronal	A >> P
Slices	5	Transversal	F >> H
Dist. factor	100 %	Save uncombined	Off
Position	R1.1 A14.6 F16.8	Coil Combine Mode	Adaptive Combine
Orientation	Transversal	AutoAlign	
Phase enc. dir.	A >> P	Auto Coil Select	Default
Rotation	0.00 deg		
Slice group 3	0.00 409	Shim mode	Tune up
Slices	6	Adjust with body coil	Off
Dist. factor	50 %	Confirm freq. adjustment	Off
Position	R1.5 P41.2 F8.6	Assume Silicone	Off
Orientation	Coronal	! Ref. amplitude 1H	220.000 V
Phase enc. dir.	R >> L	Adjustment Tolerance	Auto
Rotation	0.00 deg	Adjust volume	
	0.00 deg 0 %	! Position	Isocenter
Phase oversampling FoV read		! Orientation	Transversal
	200 mm	! Rotation	0.00 deg
FoV phase	100.0 %	! R >> L	350 mm
Slice thickness	5.0 mm	! A >> P	263 mm
TR	2900 ms	! F >> H	350 mm
ŢE	2.24 ms	I .	
Averages	1	Physio	
Concatenations	1	1st Signal/Mode	None
Filter	None	Dark blood	Off
Coil elements	A32		
Contrast		Resp. control	Off
Magn. preparation	Slice-sel. IR	'	
TI	1100 ms	Inline	0#
Flip angle	6 deg	Subtract	Off
	•	Std-Dev-Sag	Off
Fat suppr.	None	Std-Dev-Cor	Off
Water suppr.	None	Std-Dev-Tra	Off
Averaging mode	Long term	Std-Dev-Time	Off
Reconstruction	Magnitude	MIP-Sag	Off
Measurements	1	MIP-Cor	Off
Multiple series	Each measurement	MIP-Tra	Off
•	Laon moadarement	MIP-Time	Off
Resolution		Save original images	On
Base resolution	192		
Phase resolution	100 %	Sequence	
Phase partial Fourier	Off	Introduction	On
Interpolation	Off	1	
•		1/4	

Dimension Asymmetric echo Bandwidth Flow comp. Echo spacing	2D Allowed 240 Hz/Px No 5.5 ms	
RF pulse type Gradient mode Excitation RF spoiling	Normal Fast Slice-sel. On	

\\USER\Alessandra Pizzuti\AOM_VASO_LAYERS\20210705_JOH\mbep2d_iPAT2_MB3_2mm_PA_TR1000

TA: 0:44 PAT: 2 Voxel size: 2.0×2.0×2.0 mm Rel. SNR: 1.00 USER: cmrr_mb	ibep∠a b	ola
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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		
Inline movie	Off	System	0"
Auto store images	On	V32	Off
Load to stamp segments	Off	A32	On
Load images to graphic	Off	Positioning mode	FIX
segments		MSMA	S - C - T
Auto open inline display	Off	Sagittal	R >> L
Start measurement without	On	Coronal	A >> P
further preparation		Transversal	F >> H
Wait for user to start	Off	Coil Combine Mode	Sum of Squares
Start measurements	single	AutoAlign	
l	omgio	Auto Coil Select	Default
Routine			
Slice group 1	F.7	Shim mode	Standard
Slices	57	Adjust with body coil	Off
Dist. factor	0 %	Confirm freq. adjustment	Off
Position	R1.6 A33.5 H0.9	Assume Silicone	Off
Orientation	T > C-13.8	! Ref. amplitude 1H	250.000 V
Phase enc. dir.	P >> A	Adjustment Tolerance	Auto
Rotation	180.00 deg	Adjust volume	
Phase oversampling	0 %	! Position	L6.6 A30.9 F14.0
FoV read	224 mm	! Orientation	T > C-26.5
FoV phase	100.0 %	! Rotation	0.00 deg
Slice thickness	2.00 mm	! R >> L	167 mm
TR	1000 ms	! A >> P	224 mm
TE	21.0 ms	! F >> H	35 mm
Multi-band accel. factor	3	Dhysia	
Filter	None	Physio	N.
Coil elements	A32	1st Signal/Mode	None
Contrast		BOLD	~
MTC	Off	GLM Statistics	Off
Magn. preparation	None	Dynamic t-maps	Off
Flip angle	60 deg	Starting ignore meas	0
Fat suppr.	None	Ignore after transition	0
A	Langutania	Model transition states	On
Averaging mode	Long term	Temp. highpass filter	On
Reconstruction	Magnitude	Threshold	4.00
Measurements	8	Paradigm size	20
Delay in TR	0 ms	Meas[1]	Baseline
Multiple series	Off	Meas[2]	Baseline
Resolution		Meas[3]	Baseline
Base resolution	112	Meas[4]	Baseline
Phase resolution	100 %	Meas[5]	Baseline
Phase partial Fourier	6/8	Meas[6]	Baseline
Interpolation	Off	Meas[7]	Baseline
		Meas[8]	Baseline
PAT mode	GRAPPA	Meas[9]	Baseline
Accel. factor PE	2	Meas[10]	Baseline
Ref. lines PE	56	Meas[11]	Active
Reference scan mode	GRE	Meas[12]	Active
Distortion Corr	O#	Meas[13]	Active
Distortion Corr.	Off	Meas[14]	Active
Prescan Normalize	Off On	Meas[15]	Active
Raw filter	1 (1)	Meas[16]	Active
Ulintical filtar		IVICAS[10]	7101170
Elliptical filter	Off	Meas[17]	Active
Elliptical filter Hamming			
Hamming	Off	Meas[17] Meas[18]	Active
	Off Off	Meas[17]	Active Active
Hamming Geometry	Off	Meas[17] Meas[18] Meas[19]	Active Active Active

Sequence

Introduction Contrasts Bandwidth Flow comp. Free echo spacing Echo spacing	On 1 1718 Hz/Px No Off 0.69 ms
EPI factor Gradient mode RF spoiling	112 Fast Off
Excite pulse duration Slice multiplier EPI noise scans Single-band images MB LeakBlock kernel MB dual kernel MB RF phase scramble SENSE1 coil combine Invert RO/PE polarity PF omits higher k-space Force equal slice timing Online multi-band recon. FFT scale factor GRE iPAT ref. FA Physio recording Triggering scheme	6000 us 1 0 On Off Off On Off Off Off Of

\\USER\Alessandra Pizzuti\AOM_VASO_LAYERS\20210705_JOH\mbep2d_iPAT2_MB3_2mm_AP_TR1000

TA: 9:46	PAT: 2	Voxel size: 2.0×2.0×2.0 mm	Rel. SNR: 1.00	USER: cmrr_mbep2d_bold
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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		
Inline movie	Off	System	0,,
Auto store images	On	V32	Off
Load to stamp segments	Off	A32	On
Load images to graphic	Off	Positioning mode	FIX
segments		MSMA	S - C - T
Auto open inline display	Off	Sagittal	R >> L
Start measurement without	On	Coronal	A >> P
further preparation		Transversal	F >> H
Wait for user to start	Off	Coil Combine Mode	Sum of Squares
Start measurements	single	AutoAlign	
	Sing.S	Auto Coil Select	Default
Routine			
Slice group 1	57	Shim mode	Standard
Slices	57	Adjust with body coil	Off
Dist. factor	0 %	Confirm freq. adjustment	Off
Position	R1.6 A33.5 H0.9	Assume Silicone	Off
Orientation	T > C-13.8	! Ref. amplitude 1H	250.000 V
Phase enc. dir.	A >> P	Adjustment Tolerance	Auto
Rotation	0.00 deg	Adjust volume	
Phase oversampling	0 %	! Position	L6.6 A30.9 F14.0
FoV read	224 mm	! Orientation	T > C-26.5
FoV phase	100.0 %	! Rotation	0.00 deg
Slice thickness	2.00 mm	! R >> L	167 mm
TR	1000 ms	! A >> P	224 mm
TE	21.0 ms	! F >> H	35 mm
Multi-band accel. factor	3	I .	
Filter	None	Physio	
Coil elements	A32	1st Signal/Mode	None
Contrast		BOLD	
MTC	Off	GLM Statistics	On
Magn. preparation	None	Dynamic t-maps	Off
Flip angle	60 deg	Starting ignore meas	0
Fat suppr.	None	Ignore after transition	0
		Model transition states	On
Averaging mode	Long term	Temp. highpass filter	On
Reconstruction	Magnitude	Threshold	4.00
Measurements	550	Paradigm size	20
Delay in TR	0 ms	Meas[1]	Baseline
Multiple series	Off	Meas[2]	Baseline
Resolution		Meas[3]	Baseline
Base resolution	112	Meas[4]	Baseline
Phase resolution	100 %	Meas[5]	Baseline
Phase partial Fourier	6/8	Meas[6]	Baseline
Interpolation	Off	Meas[7]	Baseline
	∵ ⊓	Meas[8]	Baseline
PAT mode	GRAPPA	Meas[9]	Baseline
Accel. factor PE	2	Meas[10]	Baseline
Ref. lines PE	56	Meas[11]	Active
Reference scan mode	GRE	Meas[12]	Active
		Meas[13]	Active
Distortion Corr.	Off	Meas[14]	Active
Prescan Normalize	Off	Meas[15]	Active
Raw filter	On	Meas[16]	Active
Elliptical filter	Off	Meas[17]	Active
•			
Hamming	Off	I Meas[18]	Active
Hamming	Off	Meas[18] Meas[19]	Active Active
Hamming Geometry		Meas[19]	Active
Hamming	Off Interleaved Interleaved		

Sequence

Introduction Contrasts Bandwidth Flow comp. Free echo spacing Echo spacing	On 1 1718 Hz/Px No Off 0.69 ms
EPI factor Gradient mode RF spoiling	112 Fast Off
Excite pulse duration Slice multiplier EPI noise scans Single-band images MB LeakBlock kernel MB RF phase scramble SENSE1 coil combine Invert RO/PE polarity PF omits higher k-space Force equal slice timing Online multi-band recon. FFT scale factor GRE iPAT ref. FA Physio recording Triggering scheme	6000 us 1 0 On Off Off On On Off Off Off Off Off Of

$\verb|\USER\Alessandra|| Pizzuti AOM_VASO_LAYERS \\| 20210705_JOH \\| VASO_157_ALES_V15_PA|| Pizzuti \\| AOM_VASO_LAYERS \\| 20210705_JOH \\| VASO_157_ALES_V15_PA|| Pizzuti \\| AOM_VASO_LAYERS \\| 20210705_JOH \\| VASO_157_ALES_V15_PA|| Pizzuti \\| AOM_VASO_LAYERS \\| 20210705_JOH \\| VASO_157_ALES_V15_PA|| Pizzuti \\| AOM_VASO_LAYERS \\| 20210705_JOH \\| 20210705$

TA: 0:17 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: VASO_157

Properties	0"	PAT mode Accel. factor PE	GRAPPA 3
Prio Recon	Off	Ref. lines PE	45
Before measurement After measurement		Accel. factor 3D	1
Load to viewer	On	Ref. lines 3D	24
Inline movie	Off	Reference scan mode	Separate
Auto store images	On	Prescan Normalize	Off
Load to stamp segments	Off	Raw filter	Off
Load images to graphic	Off	Elliptical filter	Off
segments		Hamming	Off
Auto open inline display	Off	1	.
Start measurement without	On	Geometry	
further preparation		Multi-slice mode	Interleaved
Wait for user to start	Off	Series	Ascending
Start measurements	single	Special sat.	Parallel F
Double -	3	Gap	25.0 mm
Routine		Thickness	100 mm
Slab group 1 Slabs	4		
Dist. factor	1	Table position	H
	50 %	Table position	0 mm
Position	L4.9 A21.2 F7.7	Inline Composing	Off
Orientation	T > C-25.2	System	
Phase enc. dir.	P >> A	V32	Off
Rotation	180.00 deg	A32	On
Phase oversampling	0 %		
Slice oversampling	7.7 %	Positioning mode	REF
Slices per slab	26	MSMA	S - C - T
FoV read	133.0 mm	Sagittal	R >> L
FoV phase	133.3 %	Coronal	A >> P
Slice thickness	0.80 mm	Transversal	F >> H
TR	2837.90 ms	Save uncombined	Off
TE	25 ms	Coil Combine Mode	Sum of Squares
Averages	1	AutoAlign	
Concatenations	1	Auto Coil Select	Default
Filter	None	01:	0
Coil elements	A32	Shim mode	Standard
Contrast		Adjust with body coil	Off Off
Perfusion mode	SS-SI VASO	Confirm freq. adjustment Assume Silicone	Off
TI2	650 ms		Off
TI1	50 ms	! Ref. amplitude 1H	220.000 V
TI1s	50 ms	Adjustment Tolerance	Auto
Flip angle	26 deg	Adjust volume	LC C A20 0 F44 0
Fat suppr.	Fat sat.	! Position	L6.6 A30.9 F14.0
Fat sat, mode	Strong	! Orientation ! Rotation	T > C-26.5 0.00 deg
		! R >> L	167 mm
Averaging mode	Long term	! A >> P	224 mm
Reconstruction	Magn./Phase	! A >> P ! F >> H	35 mm
Measurements	6	1 : 1 >> 11	33 11111
Delay in TR	0 ms	Physio	
Multiple series	Off	1st Signal/Mode	None
Perfusion mode	PICORE Q2T	POLD.	
Inversion time 1	50 ms	BOLD Motion correction	Off
Saturation stop time	50 ms		
Inversion time 2	650.0 ms	Spatial filter	Off
Flow limit	100 cm/s	Sequence	
1		Introduction	On
Resolution		Dimension	3D
Base resolution	162	Reordering	Linear
Phase resolution	100 %	Contrasts	1
Slice resolution	100 %	Bandwidth	1064 Hz/Px
Phase partial Fourier	6/8	Free echo spacing	Off
Slice partial Fourier	Off	Echo spacing	1.04 ms
Interpolation	CM.		
	Off	EPI factor	216

RF pulse type Gradient mode Excitation RF spoiling	Normal Normal Slab-sel. On
Ampl BWDTH ph.skip 4 Robert (the one) use Ernst angle NORDIC 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 TE FlashRef FA use CAIPI	150 150 3.1kHz 1 Off On On 1.00 3 s 0.00 mT/m*ms 2000 us 25.0 74 ms 79461 ms 28 local Flash 162 100 Hz/px 7000 us 5 deg Off

\\USER\Alessandra Pizzuti\AOM_VASO_LAYERS\20210705_JOH\VASO_157_ALES_V15_run TA: 16:42 PAT: 3 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: VASO_157

Properties		PAT mode	GRAPPA
Prio Recon	Off	Accel. factor PE	3
Before measurement	Oll	Ref. lines PE	45
After measurement		Accel. factor 3D	1
Load to viewer	On	Ref. lines 3D	24
Inline movie	Off	Reference scan mode	Separate
		Prescan Normalize	Off
Auto store images	On Off		_
Load to stamp segments	Off	Raw filter	Off
Load images to graphic	Oli	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	L4.9 A21.2 F7.7	Inline Composing	Off
Orientation	T > C-25.2	I mine Composing	Oii
Phase enc. dir.	A >> P	System	
Rotation	0.00 deg	V32	Off
	0.00 deg 0 %	A32	On
Phase oversampling	7.7 %		
Slice oversampling		Positioning mode	REF
Slices per slab	26	MSMA	S - C - T
FoV read	133.0 mm	Sagittal	R >> L
FoV phase	133.3 %	Coronal	A >> P
Slice thickness	0.80 mm	Transversal	F >> H
TR	2837.90 ms	Save uncombined	Off
TE	25 ms	Coil Combine Mode	Sum of Squares
Averages	1	AutoAlign	
Concatenations	1	Auto Coil Select	Default
Filter	None		
Coil elements	A32	Shim mode	Standard
Contrast		Adjust with body coil	Off
	SS-SI VASO	Confirm freq. adjustment	Off
Perfusion mode		Assume Silicone	Off
TI2	650 ms	! Ref. amplitude 1H	220.000 V
TI1	50 ms	Adjustment Tolerance	Auto
TI1s	50 ms	Adjust volume	
Flip angle	26 deg	! Position	L6.6 A30.9 F14.0
Fat suppr.	Fat sat.	! Orientation	T > C-26.5
Fat sat. mode	Strong	! Rotation	0.00 deg
Averaging mode	Long term	! R >> L	167 mm
Reconstruction	Magn./Phase	! A >> P	224 mm
Measurements	353	! F >> H	35 mm
Delay in TR	0 ms	1	
1		Physio	
Multiple series	Off	1st Signal/Mode	None
Perfusion mode	PICORE Q2T	BOLD	
Inversion time 1	50 ms		O#
Saturation stop time	50 ms	Motion correction	Off
Inversion time 2	650.0 ms	Spatial filter	Off
Flow limit	100 cm/s	Sequence	
1	100 011/0	Introduction	On
Resolution		Dimension	3D
Base resolution	162	Reordering	Linear
Phase resolution	100 %	Contrasts	1
Slice resolution	100 %	Bandwidth	1064 Hz/Px
Phase partial Fourier	6/8		Off
Slice partial Fourier	Off	Free echo spacing	1.04 ms
Interpolation	Off	Echo spacing	1.04 1115
1		EPI factor	216

RF pulse type Gradient mode Excitation RF spoiling	Normal Normal Slab-sel. On
Ampl BWDTH ph.skip 4 Robert (the one) use Ernst angle NORDIC 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 TE FlashRef FA use CAIPI	150 150 3.1kHz 1 Off On On 1.00 3 s 0.00 mT/m*ms 2000 us 25.0 74 ms 79461 ms 28 local Flash 162 100 Hz/px 7000 us 5 deg Off

TA: 0:42 PAT: 2 Voxel size: 2.0×2.0×2.0 mm Rel. SNR: 1.00 USER: cmrr_mbep2d_bold

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	0"
Auto store images	On	V32	Off
Load to stamp segments	Off	A32	On
Load images to graphic	Off	Positioning mode	FIX
segments		MSMA	S - C - T
Auto open inline display	Off	Sagittal	R >> L
Start measurement without	On	Coronal	A >> P
further preparation		Transversal	F >> H
Wait for user to start	Off	Coil Combine Mode	Sum of Squares
Start measurements	single		
Start measurements	Sirigio	AutoAlign	
Routine		Auto Coil Select	Default
Slice group 1	F.7	Shim mode	Standard
Slices	57	Adjust with body coil	Off
Dist. factor	0 %	Confirm freq. adjustment	Off
Position	R1.6 A33.5 H0.9	Assume Silicone	Off
Orientation	T > C-13.8	! Ref. amplitude 1H	250.000 V
Phase enc. dir.	P >> A	Adjustment Tolerance	Auto
Rotation	180.00 deg	Adjust volume	
Phase oversampling	0 %	! Position	L6.6 A30.9 F14.0
FoV read	224 mm	! Orientation	T > C-26.5
FoV phase	100.0 %	! Rotation	0.00 deg
Slice thickness	2.00 mm	! R >> L	167 mm
TR	1000 ms	! A >> P	224 mm
TE	21.0 ms	! F >> H	35 mm
Multi-band accel. factor	3	1	00 111111
Filter	None	Physio	
Coil elements	A32	1st Signal/Mode	None
Contrast		BOLD	
MTC	Off	GLM Statistics	Off
Magn. preparation	None	Dynamic t-maps	Off
Flip angle	60 deg	Starting ignore meas	0
Fat suppr.	None	Ignore after transition	0
		Model transition states	On
Averaging mode	Long term	Temp. highpass filter	On
Reconstruction	Magnitude	Threshold	4.00
Measurements	6	Paradigm size	15
Delay in TR	0 ms	Meas[1]	Baseline
Multiple series	Off	Meas[2]	Baseline
•		Meas[3]	Baseline
Resolution	440	Meas[4]	Baseline
Base resolution	112	Meas[5]	Baseline
Phase resolution	100 %	Meas[6]	Baseline
Phase partial Fourier	6/8	Meas[7]	Baseline
Interpolation	Off	Meas[8]	Baseline
PAT mode	GRAPPA	Meas[9]	Baseline
Accel. factor PE	2	Meas[10]	Baseline
Ref. lines PE	56	Meas[10] Meas[11]	Active
Reference scan mode	GRE		
Reference Scarr Illoue	GNE	Meas[12]	Active
Distortion Corr.	Off	Meas[13]	Active
Prescan Normalize	Off	Meas[14]	Active
Raw filter	On	Meas[15]	Active
Elliptical filter	Off	Motion correction	Off
Hamming	Off	Spatial filter	Off
	<u> </u>	Sequence	
Coomotry			
Geometry Multi-slice mode	Interleaved	Introduction	On
Geometry Multi-slice mode Series	Interleaved Interleaved	Introduction Contrasts Bandwidth	On 1 1718 Hz/Px

Flow comp. Free echo spacing Echo spacing	No Off 0.69 ms
EPI factor Gradient mode RF spoiling	112 Fast Off
Excite pulse duration Slice multiplier EPI noise scans Single-band images MB LeakBlock kernel MB dual kernel MB RF phase scramble SENSE1 coil combine Invert RO/PE polarity PF omits higher k-space Force equal slice timing Online multi-band recon. FFT scale factor GRE iPAT ref. FA Physio recording Triggering scheme	6000 us 1 0 On Off Off On On Off Off Off Off Off Of

\\USER\Alessandra Pizzuti\AOM_VASO_LAYERS\20210705_JOH\mbep2d_iPAT2_MB3_2mm_AP_TR1000 TA: 5:45 PAT: 2 Voxel size: 2.0×2.0×2.0 mm Rel. SNR: 1.00 USER: cmrr_mbep2d_bold

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	V32	Off
Load to stamp segments	Off	A32	On
Load images to graphic	Off	Positioning mode	FIX
segments		MSMA	S - C - T
Auto open inline display	Off	Sagittal	R >> L
Start measurement without	On	Coronal	A >> P
further preparation		Transversal	F >> H
Wait for user to start	Off	Coil Combine Mode	Sum of Squares
Start measurements	single	AutoAlign	
Routine		Auto Coil Select	Default
Slice group 1		Shim mode	Standard
Slices	57	Adjust with body coil	Off
Dist. factor	0 %	Confirm freq. adjustment	Off
Position	R1.6 A33.5 H0.9	Assume Silicone	Off
Orientation	T > C-13.8	! Ref. amplitude 1H	250.000 V
Phase enc. dir.	A >> P	Adjustment Tolerance	Auto
Rotation	0.00 deg	Adjust volume	
Phase oversampling	0 %	! Position	L6.6 A30.9 F14.0
FoV read	224 mm	! Orientation	T > C-26.5
FoV phase	100.0 %	! Rotation	0.00 deg
Slice thickness	2.00 mm	! R >> L	167 mm
TR	1000 ms	! A >> P	224 mm
TE	21.0 ms	! F >> H	35 mm
Multi-band accel. factor	3	Physio	
Filter	None	1st Signal/Mode	None
Coil elements	A32	BOLD	None
Contrast MTC	Off	GLM Statistics	Off
Magn. preparation	None	Dynamic t-maps	Off
Flip angle	60 deg	Starting ignore meas	0
			_
Fat suppr	•	Ignore after transition	0
Fat suppr.	None	Ignore after transition Model transition states	0 On
Fat suppr. Averaging mode	None Long term	Model transition states	
	None	<u> </u>	On
Averaging mode Reconstruction Measurements	None Long term Magnitude 309	Model transition states Temp. highpass filter	On On 4.00 15
Averaging mode Reconstruction Measurements Delay in TR	None Long term Magnitude 309 0 ms	Model transition states Temp. highpass filter Threshold	On On 4.00
Averaging mode Reconstruction Measurements	None Long term Magnitude 309	Model transition states Temp. highpass filter Threshold Paradigm size	On On 4.00 15 Baseline Baseline
Averaging mode Reconstruction Measurements Delay in TR Multiple series	None Long term Magnitude 309 0 ms	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3]	On On 4.00 15 Baseline Baseline Baseline
Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution	None Long term Magnitude 309 0 ms Off	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4]	On On 4.00 15 Baseline Baseline Baseline Baseline Baseline
Averaging mode Reconstruction Measurements Delay in TR Multiple series	None Long term Magnitude 309 0 ms Off	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5]	On On 4.00 15 Baseline Baseline Baseline Baseline Baseline Baseline
Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution	None Long term Magnitude 309 0 ms Off 112 100 %	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 15 Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase partial Fourier	None Long term Magnitude 309 0 ms Off	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 15 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation	None Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off	Model transition states Temp. highpass filter Threshold Paradigm size Meas[1] Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[7] Meas[8]	On On 4.00 15 Baseline
Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode	None Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off GRAPPA	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]	On On 4.00 15 Baseline
Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	None Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off GRAPPA 2	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 15 Baseline
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	None Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off GRAPPA 2 56	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 15 Baseline
Averaging mode Reconstruction Measurements Delay in TR Multiple series Resolution Base resolution Phase resolution Phase partial Fourier Interpolation PAT mode Accel. factor PE	None Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off GRAPPA 2	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]	On On 4.00 15 Baseline Active Active
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 Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off GRAPPA 2 56 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 15 Baseline Active Active Active
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 Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off GRAPPA 2 56 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] Meas[14]	On On 4.00 15 Baseline Active Active Active Active
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 Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off GRAPPA 2 56 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] Meas[14] Meas[15]	On On 4.00 15 Baseline Active Active Active Active
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 Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off GRAPPA 2 56 GRE Off 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] Meas[14] Meas[15] Motion correction	On On 4.00 15 Baseline Active Active Active Active Off
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 Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off GRAPPA 2 56 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] Meas[14] Meas[15]	On On 4.00 15 Baseline Active Active Active Active
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 Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off GRAPPA 2 56 GRE Off Off Off On 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[12] Meas[13] Meas[14] Meas[15] Motion correction Spatial filter Sequence	On On 4.00 15 Baseline Bateline Batelin
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 Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off GRAPPA 2 56 GRE Off Off Off On 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[12] Meas[13] Meas[14] Meas[15] Motion correction Spatial filter Sequence Introduction	On On 4.00 15 Baseline Active Active Active Active Active Off Off
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 Long term Magnitude 309 0 ms Off 112 100 % 6/8 Off GRAPPA 2 56 GRE Off Off Off On 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[12] Meas[13] Meas[14] Meas[15] Motion correction Spatial filter Sequence	On On 4.00 15 Baseline Bateline Batelin

Flow comp. Free echo spacing Echo spacing	No Off 0.69 ms
EPI factor Gradient mode RF spoiling	112 Fast Off
Excite pulse duration Slice multiplier EPI noise scans Single-band images MB LeakBlock kernel MB dual kernel MB RF phase scramble SENSE1 coil combine Invert RO/PE polarity PF omits higher k-space Force equal slice timing Online multi-band recon. FFT scale factor GRE iPAT ref. FA Physio recording Triggering scheme	6000 us 1 0 On Off Off On On Off Off Off Off Off Of