\\USER\Feinberglab\Test\ICE-FLASH\localizer

TA: 0:13

PAT: Off

Voxel size: 1.1×1.0×7.0 mm Rel. SNR: 1.00

SIEMENS: gre

<b>.</b>		Phase resolution	90 %
Properties		—— Phase partial Fourier	Off
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	0"	Raw filter	Off
Auto open inline display	Off	Elliptical filter	On
Start measurement without	On	Mode	Inplane
further preparation	0"	ı	
Wait for user to start	Off	Geometry	
Start measurements	single	Multi-slice mode	Sequential
Routine		Series	Interleaved
Slice group 1		Saturation mode	Standard
Slices	1	Special sat.	None
Dist. factor	20 %		
Position	Isocenter		 Н
Orientation	Sagittal	Table position  Table position	0 mm
Phase enc. dir.	A >> P		Off
Rotation	0.00 deg	Inline Composing	OII
Slice group 2	0.00 dog	Tim CT mode	Off
Slices	1	1	
Dist. factor	20 %	System	0"
Position	Isocenter	T1	Off
Orientation	Transversal	M2	Off
Phase enc. dir.	A >> P	B4	Off
Rotation	0.00 deg	M3	Off
Slice group 3	0.00 deg	V32	On
Slices	1	Positioning mode	REF
Dist. factor	20 %	MSMA	S - C - T
Position	Isocenter	Sagittal	R >> L
Orientation	Coronal	Coronal	A >> P
Phase enc. dir.	R >> L	Transversal	F >> H
Rotation	0.00 deg	Save uncombined	Off
Phase oversampling	0.00 deg 0 %	Coil Combine Mode	Adaptive Combine
FoV read	250 mm	AutoAlign	
FoV phase	100.0 %	Auto Coil Select	Off
Slice thickness	7.0 mm		
TR	8.6 ms	Shim mode	Tune up
TE	4.00 ms	Adjust with body coil	Off
Averages	2	Confirm freq. adjustment	Off
Concatenations	3	Assume Silicone	Off
Filter	Elliptical filter	? Ref. amplitude 1H	0.000 V
Coil elements	V32	Adjustment Tolerance	Auto
	v OŁ	Adjust volume	
Contrast		Position	Isocenter
TD	0 ms	Orientation	Transversal
MTC	Off	Rotation	0.00 deg
Magn. preparation	None	R >> L	350 mm
Flip angle	20 deg	A >> P	263 mm
Fat suppr.	None	F >> H	350 mm
Water suppr.	None	Physio	
SWI	Off	Physio	None
		1st Signal/Mode	None
Averaging mode	Short term	Segments	1
Reconstruction	Magnitude	Tagging	None
Measurements	1	Dark blood	Off
Multiple series	Each measurement		
Resolution		Resp. control	Off
Base resolution	256	Inline	
Dago regulation	200		

Subtract Liver registration Std-Dev-Sag Std-Dev-Cor Std-Dev-Tra Std-Dev-Time MIP-Sag MIP-Cor 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

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

\\USER\Feinberglab\Test\ICE-FLASH\localizer_200V			
TA: 0:16 F	PAT: 2 Voxel size: 1.2×1.1:		SIEMENS: gre
Draportion		Phase resolution	90 %
Properties	0"	— Phase partial Fourier	6/8
Prio Recon	Off	Interpolation	On
Before measurement		PAT mode	GRAPPA
After measurement Load to viewer	On	Accel. factor PE	2
Inline movie	Off	Ref. lines PE	24
Auto store images	On	Reference scan mode	Integrated
Load to stamp segments	Off		······
Load images to graphic	Off	Image Filter	Off
segments	<b>.</b>	Distortion Corr.	Off
Auto open inline display	Off	Prescan Normalize	Off
Start measurement without	On	Normalize	Off
further preparation		B1 filter	Off
Wait for user to start	Off	Raw filter	Off
Start measurements	single	Elliptical filter	Off
Douting	3	Geometry	
Routine Slice group 1		Multi-slice mode	Sequential
Slice group 1 Slices	F	Series	Interleaved
Dist. factor	5 20 %	Coturationde	Ctandard
Position	Isocenter	Saturation mode	Standard
Orientation	Sagittal	Special sat.	None
Phase enc. dir.	A >> P	Table a saide	
Rotation	0.00 deg	Table position	Н
Slice group 2	0.00 deg	Table position	0 mm
Slices	5	Inline Composing	Off
Dist. factor	20 %	Tim CT mode	Off
Position	Isocenter	Occasions.	
Orientation	Coronal	System	
Phase enc. dir.	R >> L	T1	On
Rotation	0.00 deg	M2	On
Slice group 3	0.00 409	B4	On
Slices	5	M3 V32	On Off
Dist. factor	20 %	V 32	
Position	Isocenter	Positioning mode	FIX
Orientation	Transversal	MSMA	S - C - T
Phase enc. dir.	A >> P	Sagittal	R >> L
Rotation	0.00 deg	Coronal	A >> P
Phase oversampling	0 %	Transversal	F >> H
FoV read	280 mm	Save uncombined	Off
FoV phase	100.0 %	Coil Combine Mode	Adaptive Combine
Slice thickness	3.0 mm	AutoAlign	
TR	10.0 ms	Auto Coil Select	Off
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	B4;M2,3;T1	! Ref. amplitude 1H	200.000 V
Contrast		Adjustment Tolerance	Auto
TD	0 ms	Adjust volume	
MTC	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		
		Tagging	None

Resolution

Base resolution

256

Dark blood

Resp. control

Off

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

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\Test\ICE-FLASH\M3F3P2 fla	shref
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TA: 5.5 s PAT: 2 Voxel size: 1.6×1.6×3.0 mm Rel. SNR: 1.00 USER: ep2d\_bold\_sbmb\_cte\_ipat\_fov\_asym\_fl

Properties		Special sat.	None
Prio Recon	Off	Table position	Н
Before measurement	<b>.</b>	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	Oli	M3	On
Auto open inline display	Off	V32	Off
		D 32 1	
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
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	24	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	Isocenter	Shim made	Standard
Orientation		Shim mode	Standard
	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 %	? Ref. amplitude 1H	0.000 V
FoV read	200 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	3.00 mm	Position	Isocenter
TR	500 ms	Orientation	Transversal
TE	16 ms	Rotation	0.00 deg
Averages	1	R >> L	200 mm
Concatenations	1	A >> P	200 mm
Filter	None	F >> H	72 mm
Coil elements	B4;M2,3;T1	1 >> 11	72 111111
	_ ·,···=,o, · ·	Physio	
Contrast		1st Signal/Mode	None
MTC	Off	BOLD	
Flip angle	90 deg		Off
Fat suppr.	Fat sat.	GLM Statistics	Off
Avoraging mode	Long torm	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	8	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
		Meas[3]	Baseline
Phase partial Fourier	6/8 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	24	Meas[8]	Baseline
Reference scan mode	Separate	Meas[9]	Baseline
			Baseline
Distortion Corr.		I Measi101	
Distortion Con.	Off	Meas[10]	
Prescan Normalize		Meas[11]	Active
	Off	Meas[11] Meas[12]	Active Active
Prescan Normalize Raw filter	Off Off Off	Meas[11] Meas[12] Meas[13]	Active Active Active
Prescan Normalize Raw filter Elliptical filter	Off Off Off Off	Meas[11] Meas[12] Meas[13] Meas[14]	Active Active Active Active
Prescan Normalize Raw filter Elliptical filter Hamming	Off Off Off	Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	Active Active Active Active Active
Prescan Normalize Raw filter Elliptical filter	Off Off Off Off	Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Active Active Active Active Active Active Active
Prescan Normalize Raw filter Elliptical filter Hamming	Off Off Off Off	Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17]	Active Active Active Active Active Active Active Active Active
Prescan Normalize Raw filter Elliptical filter Hamming Geometry	Off Off Off Off Off	Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Active Active Active Active Active Active Active

Meas[20]	Active
Motion correction	On
Interpolation	3D-K-space
Spatial filter	Off

	-	
	Introduction	Off
	Asymmetric echo	Off
	Bandwidth	2298 Hz/Px
	Free echo spacing	Off
	Echo spacing	0.63 ms
	EPI factor	128
	RF pulse type	Normal
	Gradient mode	Fast
		On
	RF spoiling	OII
	RF90 duration	5120
	MB Number	3
	DummyScan Number	1
	FOV Shift Number	3
	Shift K0 Center	1
	Every Other Slice	1
	SER Number	1
	2nd RFoff(1)	0
	Polarity(1)	0
	Dephase(0)	0
	Echo Distance	1.00
	MB Measurements	4
	Ramp On	On
U		

#### \\USER\Feinberglab\Test\ICE-FLASH\M3F3P2\_SAT\_flashref

TA: 3.8 s PAT: 2 Voxel size: 1.6x1.6x3.0 mm Rel. SNR: 1.00 USER: ep2d\_venc\_ms\_sbmb\_SAT\_flashref

Droportion		Sat. region 1	
Properties Prio Recon	Off	Thickness	50 mm
Prio Recon  Before measurement	OII	Position	Isocenter
After measurement		Orientation	Coronal
Load to viewer	On	Sat. region 2	
Inline movie	Off	Thickness	50 mm
Auto store images	On	Position	L0.0 P60.0 H0.0
Load to stamp segments	Off	Orientation	Coronal
Load images to graphic	Off	Special sat.	None
segments	Oli	Table position	Н
Auto open inline display	Off	Table position	0 mm
Start measurement without	On	Inline Composing	Off
further preparation	311		OII
Wait for user to start	Off	System	
Start measurements	single	T1	On
I	Sirigio	M2	On
Routine		B4	On
Slice group 1	_	M3	On
Slices	3	V32	Off
Dist. factor	600 %	Positioning mode	REF
Position	Isocenter	MSMA	S - C - T
Orientation	Transversal	Sagittal	R >> L
Phase enc. dir.	A >> P	Coronal	A >> P
Rotation	0.00 deg	Transversal	F >> H
Phase oversampling	0 %	Coil Combine Mode	Sum of Squares
FoV read	200 mm	AutoAlign	
FoV phase	100.0 %	Auto Coil Select	Default
Slice thickness	3.0 mm		
TR	272 ms	Shim mode	Standard
TE	30.0 ms	Adjust with body coil	Off
Averages	1	Confirm freq. adjustment	Off
Concatenations	1	Assume Silicone	Off
Filter	None	? Ref. amplitude 1H	0.000 V
Coil elements	B4;M2,3;T1	Adjustment Tolerance	Auto
Contrast		Adjust volume	
MTC	Off	Position	Isocenter
Flip angle	15 deg	Orientation	Transversal
Fat suppr.	Fat sat.	Rotation	0.00 deg
		R >> L	200 mm
Averaging mode	Long term	A >> P	200 mm
Reconstruction	Magnitude	F >> H	45 mm
Measurements	20	Physio	
Delay in TR	0 ms	1st Signal/Mode	None
Multiple series	Off		
Resolution		Angio	Cipale dia
Base resolution	128	Flow mode	Single dir.
Phase resolution	100 %	Encodings	1
Phase partial Fourier	6/8	Velocity enc.	5 cm/s
Interpolation	Off	Direction Magnitude sum	Through plane
PAT mode	GRAPPA	Magnitude sum	Off
PAT mode Accel, factor PE	2	Sequence	
Ref. lines PE	24	Introduction	Off
Reference scan mode		Bandwidth	2790 Hz/Px
Neterence Scan Mode	Separate	Free echo spacing	Off
Distortion Corr.	Off	Echo spacing	0.82 ms
Prescan Normalize	Off		400
Raw filter	Off	EPI factor	128
Elliptical filter	Off	RF pulse type	Normal
Hamming	Off	Gradient mode	Fast On
			, ID
1		RF spoiling	
Geometry		RF90 duration	5120
1	Interleaved Ascending		

FOV Shift Number	3
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	10
Spoil factor	5
Skew Direction	0
Dual On(1)	1
Venc Type(0off,1+-,20+,3on)	1

TA: 1:53 PAT: 6 Voxel size: 3.1x3.1x3.0 mm Rel. SNR: 1.00 USER: ep3d\_epi\_backup\_CAnew

Properties  Prio Recon Before measurement After measurement Load to viewer Inline movie 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	Off On Off On Off Off Off Off Off	Hamming  Geometry  Multi-slice mode Series  Special sat.  Table position Table position Inline Composing	Off Interleaved Interleaved None H 0 mm
Before measurement After measurement Load to viewer Inline movie 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	On Off On Off Off	Multi-slice mode Series  Special sat.  Table position Table position Inline Composing	Interleaved  None  H
After measurement Load to viewer Inline movie 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	Off On Off Off	Multi-slice mode Series  Special sat.  Table position Table position Inline Composing	Interleaved  None  H
Inline movie 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	Off On Off Off	Special sat.  Table position Table position Inline Composing	None H
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	On Off Off	Table position Table position Inline Composing	None H
Load to stamp segments Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start	Off Off	Table position Table position Inline Composing	Н
Load to stamp segments Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start	Off Off	Table position Inline Composing	
Load images to graphic segments Auto open inline display Start measurement without further preparation Wait for user to start	Off Off	Table position Inline Composing	
segments Auto open inline display Start measurement without further preparation Wait for user to start	Off	Inline Composing	
Auto open inline display Start measurement without further preparation Wait for user to start			Off
Start measurement without further preparation Wait for user to start			<b>.</b>
further preparation Wait for user to start		System	
Wait for user to start		T1	On
	Off	M2	On
	single	B4	On
'	3 -	M3	On
Routine		V32	Off
Slab group 1		Positioning mode	REF
Slabs	1	MSMA	S-C-T
Dist. factor	50 %	Sagittal	8 - C - 1 R >> L
Position	Isocenter	Coronal	A >> P
Orientation	Transversal	Transversal	F >> H
Phase enc. dir.	A >> P	Coil Combine Mode	Sum of Squares
Rotation	0.00 deg	AutoAlign	
Phase oversampling	0 %	Auto Coil Select	Default
Slice oversampling	20.0 %	Auto Coli Select	
Slices per slab	20	Shim mode	Standard
FoV read	200 mm	Adjust with body coil	Off
FoV phase	100.0 %	Confirm freq. adjustment	Off
Slice thickness	3 mm	Assume Silicone	Off
TR	10 ms	? Ref. amplitude 1H	0.000 V
TE	1.0 ms	Adjustment Tolerance	Auto
Averages	1	Adjust volume	
Concatenations	1	Position	Isocenter
Filter	None	Orientation	Transversal
Coil elements	B4;M2,3;T1	Rotation	0.00 deg
Contrast		R >> L	200 mm
MTC	Off	A >> P	200 mm
Flip angle	90 deg	F >> H	60 mm
	Fat sat.	T .	
Fat suppr.	Fai Sai.	Physio	
Averaging mode	Long term	1st Signal/Mode	None
Reconstruction	Magnitude	BOLD	
Measurements	20	GLM Statistics	On
Delay in TR	0 ms	Dynamic t-maps	Off
Multiple series	Off	Starting ignore meas	0
		Ignore after transition	0
Resolution	64	Model transition states	On
Base resolution	64	Temp. highpass filter	On
Phase resolution	100 %	Threshold	4.00
Slice resolution	100 %	Paradigm size	20
Phase partial Fourier	6/8	Meas[1]	Baseline
Slice partial Fourier	Off	Meas[1] Meas[2]	Baseline
Interpolation	Off	Meas[3]	Baseline
PAT mode	GRAPPA	Meas[4]	Baseline
Accel. factor PE	3	Meas[4] Meas[5]	Baseline
Ref. lines PE	24	Meas[6]	Baseline
Accel. factor 3D	2	Meas[7]	Baseline
Ref. lines 3D	16	Meas[7] Meas[8]	Baseline
Reference scan mode	Separate	Meas[9]	Baseline
		Meas[10]	Baseline
Distortion Corr.	Off		Active
Prescan Normalize	Off	Meas[11] Meas[12]	Active
Raw filter	On	Meas[12]	Active
•		9/+	ACIIVE

Active
Active
On
3D-K-space
Off

	Sequence	
I	Introduction	Off
	Dimension	3D
	Bandwidth	4882 Hz/Px
	Free echo spacing	Off
	Echo spacing	0.53 ms
	EPI factor	64
	RF pulse type	Normal
	Gradient mode	Fast
	DE00 dometical	F400
	RF90 duration	5120
	MB Number	1
	DummyScan Number	1
	TR Extent(us)	0
	BwTimeProd	52
	PhaseOffset	0
	FOV Shift	1
	Polarity	0
	Interleaved	0

TA: 2:23 PAT: 6 Voxel size: 3.1x3.1x3.0 mm Rel. SNR: 1.00 USER: ep3d\_evi\_backup\_CAnew

		Elliptical filter	Off
Properties		Hamming	Off
Prio Recon	Off		-
Before measurement		Geometry	lata da accad
After measurement	05	Multi-slice mode	Interleaved
Load to viewer	On Off	Series	Ascending
Inline movie	On	Special sat.	None
Auto store images Load to stamp segments	Off	Table position	
Load images to graphic	Off	Table position Table position	H 0 mm
segments	OII	Inline Composing	Off
Auto open inline display	Off		Oli
Start measurement without	On	System	
further preparation		T1	On
Wait for user to start	Off	M2	On
Start measurements	single	B4	On
Routine		M3 V32	On Off
Slab group 1		V 32	OII
Slabs	1	Positioning mode	REF
Dist. factor	50 %	MSMA	S - C - T
Position	Isocenter	Sagittal	R >> L
Orientation	Transversal	Coronal	A >> P
Phase enc. dir.	A >> P	Transversal	F >> H
Rotation	0.00 deg	Coil Combine Mode	Sum of Squares
Phase oversampling	0 %	AutoAlign	 
Slice oversampling	20.0 %	Auto Coil Select	Default
Slices per slab	20	Shim mode	Standard
FoV read	200 mm	Adjust with body coil	Off
FoV phase	100.0 %	Confirm freq. adjustment	Off
Slice thickness	3 mm	Assume Silicone	Off
TR	10 ms	? Ref. amplitude 1H	0.000 V
TE	1.0 ms	Adjustment Tolerance	Auto
Averages	1	Adjust volume	
Concatenations	1	Position	Isocenter
Filter	None	Orientation	Transversal
Coil elements	B4;M2,3;T1	Rotation	0.00 deg
Contrast		R >> L	200 mm
MTC	Off	A >> P	200 mm
Flip angle	15 deg	F >> H	60 mm
Fat suppr.	Fat sat.	Physio	
Averaging mode	Long term	1st Signal/Mode	None
Reconstruction	Magnitude		
Measurements	20	BOLD CLM Statistics	On
Delay in TR	0 ms	GLM Statistics	On O#
Multiple series	Off	Dynamic t-maps	Off
	<del></del>	Starting ignore meas Ignore after transition	0 0
Resolution		Model transition states	On
Base resolution	64	Temp. highpass filter	On
Phase resolution	100 %	Threshold	4.00
Slice resolution	100 %	Paradigm size	20
Phase partial Fourier	Off	Meas[1]	Baseline
Slice partial Fourier Interpolation	Off Off	Meas[2]	Baseline
IIIIeIpoialion	OII	Meas[3]	Baseline
PAT mode	GRAPPA	Meas[4]	Baseline
Accel. factor PE	3	Meas[5]	Baseline
Ref. lines PE	24	Meas[6]	Baseline
Accel. factor 3D	2	Meas[7]	Baseline
Ref. lines 3D	16	Meas[8]	Baseline
Reference scan mode	Separate	Meas[9]	Baseline
Distortion Corr.	Off	Meas[10]	Baseline
Prescan Normalize	Off	Meas[11]	Active
Raw filter	On	Meas[12]	Active
		Meas[13]	Active
	,	11/⊥	

Active
Active
On
3D-K-space
Off

	Ocquence		
Ī	Introduction	Off	
	Dimension	3D	
	Bandwidth	4882 Hz/Px	
	Free echo spacing	Off	
	Echo spacing	0.53 ms	
	EPI factor	64	
	RF pulse type	Normal	
	Gradient mode	Fast	
	RF90 duration	5120	
		1	
	MB Number	1	
	MB Number DummyScan Number	1 1 0	
	MB Number	1	
	MB Number DummyScan Number TR Extent(us)	1 1 0	
	MB Number DummyScan Number TR Extent(us) BwTimeProd	1 1 0 52	
	MB Number DummyScan Number TR Extent(us) BwTimeProd PhaseOffset	1 1 0 52	
	MB Number DummyScan Number TR Extent(us) BwTimeProd PhaseOffset FOV Shift	1 1 0 52 0	

#### \\USER\Feinberglab\Test\ICE-FLASH\M3F1P4\_flashref\_fa60

TA: 0:16 PAT: 4 Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 USER: ep2d\_bold\_sbmb\_cte\_ipat\_fov\_asym\_fla

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	Oli	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Desitioning and	DEE
	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
Slice group 1		<ul> <li>Coil Combine Mode</li> </ul>	Sum of Squares
Slices	48	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	L1.2 A21.2 H18.8	Shim mode	Standard
Orientation	T > C-15.0		Off
	A >> P	Adjust with body coil	
Phase enc. dir.		Confirm freq. adjustment	Off
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	? Ref. amplitude 1H	0.000 V
FoV read	192 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	1.50 mm	! Position	L1.2 A21.2 H18.8
TR	1130 ms	! Orientation	T > C-15.0
TE	16 ms	! Rotation	0.00 deg
Averages	1	! R >> L	192 mm
Concatenations	1	! A >> P	192 mm
Filter	None	!F>> H	72 mm
Coil elements	B4;M2,3;T1	ı	. –
Contrast		Physio	
	0#	1st Signal/Mode	None
MTC	Off	BOLD	
Flip angle	60 deg	GLM Statistics	Off
Fat suppr.	Fat sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude		
Measurements	8	Ignore after transition	0
Delay in TR	0 ms	Model transition states	On
1	Off	Temp. highpass filter	On
Multiple series	Oli	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	Off	Meas[4]	Baseline
	——————————————————————————————————————	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	4	Meas[7]	Baseline
Ref. lines PE	24	Meas[8]	Baseline
Reference scan mode	Separate	Meas[9]	Baseline
		Meas[10]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off	Meas[12]	Active
Raw filter	Off	Meas[12]	Active
Elliptical filter	Off		Active
Hamming	Off	Meas[14]	
		Meas[15]	Active
Geometry		Meas[16]	Active
Multi-slice mode	Interleaved	Meas[17]	Active
			A =4:: . =
Series	Ascending	Meas[18] Meas[19]	Active Active

Meas[20] Motion correction Spatial filter	Active Off Off
Sequence	
Introduction Asymmetric echo Bandwidth Free echo spacing Echo spacing	Off Off 1776 Hz/Px Off 0.69 ms
EPI factor RF pulse type Gradient mode RF spoiling	128 Normal Fast On
RF90 duration MB Number DummyScan Number FOV Shift Number Shift K0 Center Every Other Slice SER Number 2nd RFoff(1) Polarity(1) Dephase(0) Echo Distance MB Measurements Ramp On	5120 3 1 1 1 1 1 0 0 0 0 1.00 4 On

#### \\USER\Feinberglab\Test\ICE-FLASH\M2F4P4\_flashref\_fa60

TA: 0:15 PAT: 4 Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 USER: ep2d\_bold\_sbmb\_cte\_ipat\_fov\_asym\_fla

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	0.5
Auto store images	On	T1	On
Load to stamp segments	Off	M2 B4	On On
Load images to graphic	Off	M3	On
segments		V32	Off
Auto open inline display	Off	V 32	
Start measurement without	On	Positioning mode	REF
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	48	AutoAlign	
Dist. factor	0 %	Auto Coil Select	Default
Position	L1.2 A21.2 H18.8	Shim mode	Standard
Orientation	T > C-15.0	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	Off
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	? Ref. amplitude 1H	0.000 V
FoV read	192 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	1.50 mm	! Position	L1.2 A21.2 H18.8
TR	1130 ms	! Orientation	T > C-15.0
TE	16 ms	! Rotation	0.00 deg
Averages	1	! R >> L	192 mm
Concatenations	1	! A >> P	192 mm
Filter	None	! F >> H	72 mm
Coil elements	B4;M2,3;T1	Physio	
Contrast		1st Signal/Mode	None
MTC	Off	<del>_</del> '	
Flip angle	60 deg	BOLD	0"
Fat suppr.	Fat sat.	GLM Statistics	Off
Averaging mode	Long term	Dynamic t-maps	Off
Reconstruction	Magnitude	Starting ignore meas	0
Measurements	7	Ignore after transition  Model transition states	0 On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
·	0.11	Paradigm size	20
Resolution		— Meas[1]	Baseline
Base resolution	128	Meas[1] Meas[2]	Baseline
Phase resolution	100 %	Meas[3]	Baseline
Phase partial Fourier	6/8	Meas[4]	Baseline
Interpolation	Off	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE			
	4	Meas[7]	Baseline
Ref. lines PE		Meas[7] Meas[8]	Baseline Baseline
Reference scan mode	4 24	Meas[7] Meas[8] Meas[9]	
Reference scan mode	4 24 Separate	Meas[8] Meas[9]	Baseline
Reference scan mode Distortion Corr.	4 24 Separate Off	Meas[8]	Baseline Baseline
Reference scan mode Distortion Corr. Prescan Normalize	4 24 Separate Off Off	Meas[8] Meas[9] Meas[10]	Baseline Baseline Baseline
Reference scan mode Distortion Corr. Prescan Normalize Raw filter	4 24 Separate  Off Off Off	Meas[8] Meas[9] Meas[10] Meas[11]	Baseline Baseline Baseline Active
Reference scan mode  Distortion Corr. Prescan Normalize Raw filter Elliptical filter	4 24 Separate  Off Off Off Off Off	Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Baseline Baseline Baseline Active Active
Reference scan mode Distortion Corr. Prescan Normalize Raw filter	4 24 Separate  Off Off Off	Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	Baseline Baseline Baseline Active Active Active
Reference scan mode  Distortion Corr. Prescan Normalize Raw filter Elliptical filter	4 24 Separate  Off Off Off Off Off	Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	Baseline Baseline Baseline Active Active Active Active Active
Reference scan mode  Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	4 24 Separate  Off Off Off Off Off	Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16] Meas[17]	Baseline Baseline Baseline Active Active Active Active Active Active
Reference scan mode  Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	4 24 Separate  Off Off Off Off Off Off	Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Baseline Baseline Baseline Active Active Active Active Active Active Active Active

Meas[20] Motion correction Spatial filter	Active Off Off
Sequence	
Introduction Asymmetric echo Bandwidth Free echo spacing Echo spacing	Off Off 1776 Hz/Px Off 0.69 ms
EPI factor RF pulse type Gradient mode RF spoiling	128 Normal Fast On
RF90 duration MB Number DummyScan Number FOV Shift Number Shift K0 Center Every Other Slice SER Number 2nd RFoff(1) Polarity(1) Dephase(0) Echo Distance MB Measurements Ramp On	5120 2 1 4 1 1 1 0 0 0 0 1.00 4 On

#### \\USER\Feinberglab\Test\ICE-FLASH\M4F4P4\_flashref\_fa60

TA: 0:17 PAT: 4 Voxel size: 1.5×1.5×1.5 mm Rel. SNR: 1.00 USER: ep2d\_bold\_sbmb\_cte\_ipat\_fov\_asym\_fla

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	<b>.</b>	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	REF
further preparation	OII	Positioning mode	
Wait for user to start	Off	MSMA	S-C-T
Start measurements		Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	48	AutoAlign	 D ( )
Dist. factor	0 %	Auto Coil Select	Default
Position	L1.2 A21.2 H18.8	Shim mode	Standard
Orientation	T > C-15.0	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	_
Rotation	0.00 deg	Assume Silicone	Off Off
Phase oversampling	0.00 deg 0 %		
FoV read	0 % 192 mm	? Ref. amplitude 1H	0.000 V
		Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	1.50 mm	Position	L1.2 A21.2 H18.8
TR	1130 ms	Orientation	T > C-15.0
TE	16 ms	Rotation	0.00 deg
Averages	1	R >> L	192 mm
Concatenations	1	A >> P	192 mm
Filter	None	F >> H	72 mm
Coil elements	B4;M2,3;T1	Dhysis	
Contrast		Physio 1st Signal/Mode	None
MTC	Off	- Ist Signal/Mode	None
Flip angle	60 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	9	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	400	141043 11	Dasonino
Dhann manduiting	128		Raseline
Phase resolution	100 %	Meas[2]	Baseline Baseline
Phase partial Fourier	100 % 6/8	Meas[2] Meas[3]	Baseline
	100 %	Meas[2] Meas[3] Meas[4]	Baseline Baseline
Phase partial Fourier Interpolation	100 % 6/8 Off	Meas[2] Meas[3] Meas[4] Meas[5]	Baseline Baseline Baseline
Phase partial Fourier Interpolation PAT mode	100 % 6/8 Off GRAPPA	Meas[2] Meas[3] Meas[4] Meas[5] Meas[6]	Baseline Baseline Baseline Baseline
Phase partial Fourier Interpolation PAT mode Accel. factor PE	100 % 6/8 Off GRAPPA 4	Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	Baseline Baseline Baseline Baseline Baseline
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE	100 % 6/8 Off GRAPPA 4 24	Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Phase partial Fourier Interpolation PAT mode Accel. factor PE	100 % 6/8 Off GRAPPA 4	Meas[2] Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode	100 % 6/8 Off GRAPPA 4 24 Separate	Meas[2] 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 partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr.	100 % 6/8 Off GRAPPA 4 24 Separate Off	Meas[2] 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
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize	100 % 6/8 Off GRAPPA 4 24 Separate Off	Meas[2] 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 Baseline
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize Raw filter	100 % 6/8 Off GRAPPA 4 24 Separate Off Off	Meas[2] 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
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize Raw filter Elliptical filter	100 % 6/8 Off  GRAPPA 4 24 Separate  Off Off Off Off	Meas[2] 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 Bateline Active Active
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize Raw filter	100 % 6/8 Off GRAPPA 4 24 Separate Off Off	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 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	100 % 6/8 Off  GRAPPA 4 24 Separate  Off Off Off Off	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 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active
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	100 % 6/8 Off GRAPPA 4 24 Separate Off Off Off Off Off	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 Active Active Active Active Active Active Active
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	100 % 6/8 Off  GRAPPA 4 24 Separate  Off Off Off Off	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 Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active

Meas[20]	Active
Motion correction	On
Interpolation	3D-K-space
Spatial filter	Off

Introduction Asymmetric echo Bandwidth Free echo spacing Echo spacing	Off Off 1776 Hz/Px Off 0.73 ms
EPI factor RF pulse type Gradient mode RF spoiling	128 Normal Fast On
RF90 duration MB Number DummyScan Number FOV Shift Number Shift K0 Center Every Other Slice SER Number 2nd RFoff(1) Polarity(1) Dephase(0) Echo Distance MB Measurements Ramp On	5120 4 1 4 1 1 1 0 0 0 0 1.00 4 On

\\USER\Feinberglab\Test\ICE-FLASH\ep2d_venc5_m3s_sbmb_SAT				
TA: 1:00	PAT: 2	Voxel size: 1.7×1.7×5.0 mm	Rel. SNR: 1.00	USER: ep2d_venc_ms_sbmb_SAT
Properties Prio Recon Before measure	ement	Off	Sat. region 1 Thickness Position Orientation	50 mm L0.0 A123.8 H33.7 C > T15.2

Properties		Sat. region 1	50 mm
Prio Recon	Off	<ul><li>Thickness</li><li>Position</li></ul>	
Before measurement			L0.0 A123.8 H33.7
After measurement		Orientation	C > T15.2
Load to viewer	On	Sat. region 2	FO
Inline movie	Off	Thickness	50 mm
Auto store images	On	Position	L0.0 P120.9 F33.0
Load to stamp segments	Off	Orientation	C > T15.2
Load images to graphic	Off	Special sat.	None
segments	<b>C</b>	Table position	Н
Auto open inline display	Off	Table position	0 mm
Start measurement without	On	Inline Composing	Off
further preparation	311	Timile Composing	Oli
Wait for user to start	Off	System	
Start measurements	single	T1	On
Otan measurements	Sirigie	M2	On
Routine		B4	On
Slice group 1		_ M3	On
Slices	3	V32	Off
Dist. factor	800 %		
Position	L1.2 A5.4 F4.2	Positioning mode	FIX
Orientation	T > C-15.0	MSMA	S-C-T
Phase enc. dir.	A >> P	Sagittal	R >> L
Rotation	0.00 deg	Coronal	A >> P
Phase oversampling	0 %	Transversal	F >> H
FoV read	220 mm	Coil Combine Mode	Sum of Squares
FoV phase	100.0 %	AutoAlign	
Slice thickness	5.0 mm	Auto Coil Select	Default
TR	2000 ms	Chim made	Ctondord
TE	39.0 ms	Shim mode	Standard
Averages	1	Adjust with body coil	Off
Concatenations	1	Confirm freq. adjustment	Off
Filter	None	Assume Silicone	Off
		? Ref. amplitude 1H	0.000 V
Coil elements	B4;M2,3;T1	Adjustment Tolerance	Auto
Contrast		Adjust volume	140454540
MTC	Off	- ! Position	L1.2 A5.4 F4.2
Flip angle	90 deg	! Orientation	T > C-15.0
Fat suppr.	Fat sat.	! Rotation	0.00 deg
		! R >> L	220 mm
Averaging mode	Long term	! A >> P	220 mm
Reconstruction	Magnitude	! F >> H	95 mm
Measurements	20	Physio	
Delay in TR	0 ms	1st Signal/Mode	None
Multiple series	Off	13t Signal/Mode	None
Resolution		Angio	
Base resolution	128	<ul><li>Flow mode</li></ul>	Single dir.
Phase resolution	100 %	Encodings	1
Phase partial Fourier	6/8	Velocity enc.	5 cm/s
<u> </u>		Direction	Through plane
Interpolation	Off	Magnitude sum	Off
PAT mode	GRAPPA		
Accel. factor PE	2	Sequence	
Ref. lines PE	_ 24	Introduction	Off
Reference scan mode	Separate	Bandwidth	2790 Hz/Px
		Free echo spacing	Off
Distortion Corr.	Off	Echo spacing	0.78 ms
Prescan Normalize	Off	EPI factor	128
Raw filter	Off		Normal
Elliptical filter	Off	RF pulse type Gradient mode	
Hamming	Off		Fast
		RF spoiling	On
Geometry	Lataria a va l	RF90 duration	5120
Multi-slice mode	Interleaved	MB Number	3
Series	Ascending	DummyScan Number	5
1			=

FOV Shift Number	1
Shift K0 Center	1
Every Other Slice	1
SER Number	1
Venc Repetition	10
Spoil factor	5
Skew Direction	0
DualBand Sat	0
FOV Dir	0
Venc Type(0off,1+-,20+,3on,4	1
00++)	

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TA: 0:18 PAT: 4 Voxel size: 1.0×1.0×1.0 mm Rel. SNR: 1.00 USER: ep2d\_bold\_sbmb\_cte\_ipat\_fov\_asym\_flater

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 V32	On Off
Auto open inline display	Off	V32	OII
Start measurement without	On	Positioning mode	REF
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		<ul> <li>Coil Combine Mode</li> </ul>	Sum of Squares
Slices	48	AutoAlign	
Dist. factor	50 %	Auto Coil Select	Default
Position	Isocenter	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 %	? Ref. amplitude 1H	0.000 V
FoV read	192 mm	Adjustment Tolerance	Auto
FoV phase	68.8 %	Adjust volume	, 1010
Slice thickness	1.00 mm	Position	Isocenter
TR	1400 ms	Orientation	Transversal
TE	22 ms	Rotation	0.00 deg
Averages	1	R >> L	192 mm
Concatenations	1	A >> P	132 mm
Filter	None	F >> H	72 mm
Coil elements	B4;M2,3;T1	Physio	
Contrast		1st Signal/Mode	None
MTC	Off		140110
Flip angle	40 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	7	Model transition states	On
Delay in TR	0 ms Off	Temp. highpass filter	On
Multiple series	Oii	Threshold	4.00
Resolution		Paradigm size	20 Pasolino
Base resolution	192	- Meas[1]	Baseline Baseline
Phase resolution	96 %	Meas[2] Meas[3]	Baseline Baseline
Phase partial Fourier	Off	Meas[3]	Baseline Baseline
Interpolation	Off	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE		Meas[7]	Baseline
Ref. lines PE	4		24000
	4 24	_ = =	Baseline
Reference scan mode	24	Meas[8]	Baseline Baseline
Reference scan mode	24 Separate	Meas[8] Meas[9]	Baseline
Distortion Corr.	24 Separate Off	Meas[8] Meas[9] Meas[10]	Baseline Baseline
Distortion Corr. Prescan Normalize	24 Separate Off Off	Meas[8] Meas[9] Meas[10] Meas[11]	Baseline
Distortion Corr. Prescan Normalize Raw filter	24 Separate Off Off Off	Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Baseline Baseline Active
Distortion Corr. Prescan Normalize Raw filter Elliptical filter	24 Separate Off Off Off Off	Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13]	Baseline Baseline Active Active
Distortion Corr. Prescan Normalize Raw filter	24 Separate Off Off Off	Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	Baseline Baseline Active Active Active
Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	24 Separate Off Off Off Off	Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15]	Baseline Baseline Active Active Active Active Active
Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming Geometry	24 Separate Off Off Off Off Off	Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14]	Baseline Baseline Active Active Active Active Active Active
Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	24 Separate Off Off Off Off	Meas[8] Meas[9] Meas[10] Meas[11] Meas[12] Meas[13] Meas[14] Meas[15] Meas[16]	Baseline Baseline Active Active Active Active Active Active Active Active

	Meas[20] Motion correction Spatial filter	Active Off Off
,	Sequence	
	Introduction Asymmetric echo Bandwidth Free echo spacing Echo spacing	Off Off 1736 Hz/Px Off 0.92 ms
	EPI factor RF pulse type Gradient mode RF spoiling	127 Normal Fast On
	RF90 duration MB Number DummyScan Number FOV Shift Number Shift K0 Center Every Other Slice SER Number 2nd RFoff(1) Polarity(1) Dephase(0) Echo Distance MB Measurements Ramp On	5120 2 1 3 1 1 1 0 0 0 0 1.00 4 On

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TA: 0:18 PAT: 4 Voxel size: 1.5×1.0×1.0 mm Rel. SNR: 1.00 USER: ep2d\_bold\_sbmb\_cte\_ipat\_fov\_asym\_flater

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
		Transversal	F >> H
Routine		Coil Combine Mode	Sum of Squares
Slice group 1		AutoAlign	
Slices	48	Auto Coil Select	Default
Dist. factor	50 %	Auto Coli Gelect	Delault
Position	L1.2 A21.2 H18.8	Shim mode	Standard
Orientation	T > C-15.0	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	Off
Rotation	0.00 deg	Assume Silicone	Off
Phase oversampling	0 %	? Ref. amplitude 1H	0.000 V
FoV read	192 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	1.00 mm	! Position	L1.2 A21.2 H18.8
TR	1400 ms	! Orientation	T > C-15.0
TE	16 ms	! Rotation	0.00 deg
Averages	1	! R >> L	192 mm
Concatenations	1	! A >> P	192 mm
Filter	None	! F >> H	72 mm
Coil elements	B4;M2,3;T1	ı	
0		Physio	
Contrast	0"	1st Signal/Mode	None
MTC	Off	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	Ignore after transition	0
Measurements	7	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	192	Meas[1] Meas[2]	Baseline
Phase resolution	66 %	Meas[2] Meas[3]	Baseline
Phase partial Fourier	6/8	Meas[3] Meas[4]	Baseline
Interpolation	Off	Meas[5]	Baseline
PAT mode	GRAPPA	Meas[6]	Baseline
Accel. factor PE	4	Meas[7]	Baseline
Ref. lines PE	24	Meas[8]	Baseline
Reference scan mode	Separate	Meas[9]	Baseline
		Meas[9]	Baseline
Distortion Corr.	Off	Meas[11]	Active
Prescan Normalize	Off		Active
Raw filter	Off	Meas[12]	Active
Elliptical filter	Off	Meas[13]	
Hamming	Off	Meas[14]	Active
· ·		Meas[15]	Active
Geometry		Meas[16]	Active
Multi-slice mode	Interleaved	Meas[17]	Active
Series	Ascending	Meas[18]	Active
		Meas[19]	Active

Meas[20] Motion correction Spatial filter	Active Off Off
Sequence	
Introduction Asymmetric echo Bandwidth Free echo spacing Echo spacing	Off Off 1302 Hz/Px Off 0.89 ms
EPI factor RF pulse type Gradient mode RF spoiling	127 Normal Fast On
RF90 duration MB Number DummyScan Number FOV Shift Number Shift K0 Center Every Other Slice SER Number 2nd RFoff(1) Polarity(1) Dephase(0) Echo Distance MB Measurements Ramp On	5120 2 1 1 1 1 1 0 0 0 0 1.00 4 On

TA: 0:18 PAT: 4 Voxel size: 1.5×1.0×1.0 mm Rel. SNR: 1.00 USER: ep2d\_bold\_sbmb\_cte\_ipat\_fov\_asym\_flater

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	Oll	Positioning mode	
Wait for user to start	Off	MSMA	S-C-T
Start measurements		Sagittal	R >> L
Start measurements	single	Coronal	A >> P
Routine		Transversal	F >> H
Slice group 1		Coil Combine Mode	Sum of Squares
Slices	48	AutoAlign	 D ( !!
Dist. factor	50 %	Auto Coil Select	Default
Position	L1.2 A21.2 H18.8	Shim mode	Standard
Orientation	T > C-15.0	Adjust with body coil	Off
Phase enc. dir.	A >> P	Confirm freq. adjustment	Off
Rotation	0.00 deg		
		Assume Silicone	Off
Phase oversampling	0 %	? Ref. amplitude 1H	0.000 V
FoV read	192 mm	Adjustment Tolerance	Auto
FoV phase	100.0 %	Adjust volume	
Slice thickness	1.00 mm	! Position	L1.2 A21.2 H18.8
TR	1400 ms	! Orientation	T > C-15.0
TE	16 ms	! Rotation	0.00 deg
Averages	1	! R >> L	192 mm
Concatenations	1	! A >> P	192 mm
Filter	None	! F >> H	72 mm
Coil elements	B4;M2,3;T1	Dharais	
Contrast		Physio	Nama
MTC	Off	1st Signal/Mode	None
	40 deg	BOLD	
Flip angle	•	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	7	Model transition states	On
Delay in TR	0 ms	Temp. highpass filter	On
Multiple series	Off	Threshold	4.00
·	<b></b>	Paradigm size	20
Resolution		- Meas[1]	Baseline
Base resolution	192	Meas[1]	Baseline Baseline
		IVIEASI Z I	DASEILLE
Phase resolution	66 %		
Phase resolution Phase partial Fourier	66 % 6/8	Meas[3]	Baseline
Phase partial Fourier		Meas[3] Meas[4]	Baseline Baseline
Phase partial Fourier Interpolation	6/8 Off	Meas[3] Meas[4] Meas[5]	Baseline Baseline Baseline
Phase partial Fourier Interpolation PAT mode	6/8 Off GRAPPA	Meas[3] Meas[4] Meas[5] Meas[6]	Baseline Baseline Baseline Baseline
Phase partial Fourier Interpolation PAT mode Accel. factor PE	6/8 Off GRAPPA 4	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7]	Baseline Baseline Baseline Baseline Baseline
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE	6/8 Off GRAPPA 4 24	Meas[3] Meas[4] Meas[5] Meas[6]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Phase partial Fourier Interpolation PAT mode Accel. factor PE	6/8 Off GRAPPA 4	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	Baseline Baseline Baseline Baseline Baseline
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode	6/8 Off GRAPPA 4 24 Separate	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	6/8 Off GRAPPA 4 24 Separate	Meas[3] Meas[4] Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize	6/8 Off  GRAPPA 4 24 Separate Off 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 Baseline
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize Raw filter	6/8 Off  GRAPPA 4 24 Separate  Off Off 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 Baseline Active
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize Raw filter Elliptical filter	6/8 Off  GRAPPA 4 24 Separate  Off Off Off Off	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
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize Raw filter	6/8 Off  GRAPPA 4 24 Separate  Off Off 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
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	6/8 Off  GRAPPA 4 24 Separate  Off Off Off 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]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active
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	6/8 Off  GRAPPA 4 24 Separate  Off Off Off Off 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
Phase partial Fourier Interpolation  PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	6/8 Off  GRAPPA 4 24 Separate  Off Off Off 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]	Baseline Baseline Baseline Baseline Baseline Baseline Baseline Baseline Active Active Active Active Active

Meas[20] Motion correction Spatial filter	Active Off Off
Sequence	
Introduction Asymmetric echo Bandwidth Free echo spacing Echo spacing	Off Off 1302 Hz/Px Off 0.89 ms
EPI factor RF pulse type Gradient mode RF spoiling	127 Normal Fast On
RF90 duration MB Number DummyScan Number FOV Shift Number Shift K0 Center Every Other Slice SER Number 2nd RFoff(1) Polarity(1) Dephase(0) Echo Distance MB Measurements Ramp On	5120 2 1 2 1 1 1 1 0 0 0 0 1.00 4 On

	\\USER\	Feinberglab\Test\ICE-FLASF	-l\ep2d_fid_sbmb	_cte_ipat_fov_asym_pcasl_DE	
· 0·44	DAT: Off	\/oval cizo: 2 0v2 0v5 0 mm	Dal SND: 1 00	LISEP: an2d fid shiph at a inat four asym in	,

TA: 0:44 PAT: Off

Properties Prio Recon	0#	Table position Inline Composing	0 mm Off
	Off	System	
Before measurement		T1	0#
After measurement	0-		Off
Load to viewer	On Off	M2	Off
Inline movie	Off	B4	Off
Auto store images	On O"	M3	Off
Load to stamp segments	Off	V32	On
Load images to graphic	Off	Positioning mode	REF
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	Save uncombined	Off
Start measurements	single	Coil Combine Mode	Sum of Squares
Routine		AutoAlign	
Slice group 1		Auto Coil Select	Default
Slices	1	Chim made	Standard
Dist. factor	50 %	Shim mode	Standard Off
Position	Isocenter	Adjust with body coil	_
Orientation	Transversal	Confirm freq. adjustment	Off
Phase enc. dir.	A >> P	Assume Silicone	Off
Rotation	0.00 deg	? Ref. amplitude 1H	0.000 V
Phase oversampling	0 %	Adjustment Tolerance	Auto
FoV read	500 mm	Adjust volume	
FoV phase	100.0 %	Position	Isocenter
Slice thickness	5.0 mm	Orientation	Transversal
TR	2910 ms	Rotation	0.00 deg
TE 1	98 ms	R >> L	500 mm
TE 2	278 ms	A >> P	500 mm
Averages	1	F >> H	5 mm
Concatenations	1	Physio	
Filter	None		None
Coil elements	V32	1st Signal/Mode	None
Con elements	V 32	Perf	
Contrast		GBP	On
MTC	Off	PBP	On
Flip angle	90 deg	TTP	On
Fat suppr.	Fat sat.	Original images	On
Avoraging mode	Long torm	Starting ignore meas	2
Averaging mode	Long term	Common	
Reconstruction	Magnitude	Sequence	0"
Measurements	15 0 ms	Introduction	Off
Delay in TR	Off	Contrasts	2 752 H=/Dy
Multiple series	OII	Bandwidth	752 Hz/Px
Resolution		Free echo spacing	Off
Base resolution	128	Echo spacing	1.4 ms
Phase resolution	100 %	EPI factor	128
Phase partial Fourier	Off	RF pulse type	Normal
Interpolation	Off	Gradient mode	Fast
PAT mode	None	RF spoiling	On
		RF90 duration	5120
Distortion Corr.	Off	MB Number	1
Prescan Normalize	Off	DummyScan Number	1
Raw filter	Off	FOV Shift Number	1
Elliptical filter	Off	Shift K0 Center	1
Hamming	Off	Every Other Slice	1
Geometry		SER Number	1
Multi-slice mode	Interleaved	2nd RFoff(1)	0
Series		` '	0
Jenes	Ascending	Polarity(1)	•
	None	Label Offset	80 mm
Special sat.	NONE	L Echo Dictorco	1 00
Special sat. Table position	Н	Echo Distance  MB Measurements	1.00 0

Ramp On

Off

- \\U&EK\FEIIDEIDIAD\TESI\ICE=FLA&H\WZF4F4 HASHIEL IADI	R\Feinberglab\Test\ICE-FLASH\M2F4P4_fla	shref fa60
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TA: 6:30 PAT: 4 Voxel size: 0.8×0.8×0.8 mm Rel. SNR: 1.00 USER: ep2d\_bold\_sbmb\_cte\_ipat\_fov\_asym\_fla

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	<b>.</b>	M3	On
Auto open inline display	Off	V32	Off
Start measurement without	On	Positioning mode	REF
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	12	AutoAlign	 D ( )
Dist. factor	0 %	Auto Coil Select	Default
Position	L1.2 A21.2 H18.8	Shim mode	Standard
Orientation	T > C-15.0	Adjust with body coil	Off
Phase enc. dir.	A >> P		_
Rotation	0.00 deg	Confirm freq. adjustment	Off
Phase oversampling	0.00 deg 0 %	Assume Silicone	Off
FoV read		? Ref. amplitude 1H	0.000 V
	192 mm	Adjustment Tolerance	Auto
FoV phase	50.0 %	Adjust volume	
Slice thickness	0.75 mm	! Position	L1.2 A21.2 H18.8
TR	30000 ms	! Orientation	T > C-15.0
TE	200 ms	! Rotation	0.00 deg
Averages	1	! R >> L	192 mm
Concatenations	1	! A >> P	192 mm
Filter	None	! F >> H	72 mm
Coil elements	B4;M2,3;T1	Dhysis	
Contrast		Physio 1st Signal/Mode	None
MTC	Off	TSt Signal/Mode	None
Flip angle	60 deg	BOLD	
Fat suppr.	Fat sat.	GLM Statistics	Off
	ı at sat.	Dynamic t-maps	Off
Averaging mode	Long term	Starting ignore meas	0
Reconstruction	Magnitude	Ignore after transition	0
Measurements	7	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	256	Meas[1]	Baseline
Phase resolution	100 %	Meas[2] Meas[3]	Baseline
Phase partial Fourier	0"	IVICAS[J]	
	Off	Meacl	Racalina
Interpolation	Off	Meas[4]	Baseline Baseline
	Off	Meas[5]	Baseline
PAT mode	Off GRAPPA	Meas[5] Meas[6]	Baseline Baseline
PAT mode Accel. factor PE	Off GRAPPA 4	Meas[5] Meas[6] Meas[7]	Baseline Baseline Baseline
PAT mode Accel. factor PE Ref. lines PE	Off GRAPPA 4 48	Meas[5] Meas[6] Meas[7] Meas[8]	Baseline Baseline Baseline Baseline
PAT mode Accel. factor PE	Off GRAPPA 4	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9]	Baseline Baseline Baseline Baseline Baseline
PAT mode Accel. factor PE Ref. lines PE Reference scan mode	Off GRAPPA 4 48 Separate	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10]	Baseline Baseline Baseline Baseline Baseline Baseline
PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr.	Off GRAPPA 4 48 Separate Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	Baseline Baseline Baseline Baseline Baseline Baseline Active
PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize	Off GRAPPA 4 48 Separate Off Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	Baseline Baseline Baseline Baseline Baseline Baseline
PAT mode Accel. factor PE Ref. lines PE Reference scan mode Distortion Corr. Prescan Normalize Raw filter	Off GRAPPA 4 48 Separate Off Off Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11]	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	Off GRAPPA 4 48 Separate Off Off Off Off	Meas[5] Meas[6] Meas[7] Meas[8] Meas[9] Meas[10] Meas[11] Meas[12]	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	Off GRAPPA 4 48 Separate Off Off 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
PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming	Off GRAPPA 4 48 Separate Off 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
PAT mode Accel. factor PE Ref. lines PE Reference scan mode  Distortion Corr. Prescan Normalize Raw filter Elliptical filter Hamming  Geometry	Off GRAPPA 4 48 Separate Off Off Off 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] Meas[16]	Baseline Baseline Baseline Baseline Baseline Baseline Active Active 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	Off GRAPPA 4 48 Separate Off 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

Meas[20] Motion correction Spatial filter	Active Off Off
Sequence	
Introduction Asymmetric echo Bandwidth Free echo spacing Echo spacing	Off Off 976 Hz/Px Off 1.33 ms
EPI factor RF pulse type Gradient mode RF spoiling	128 Normal Fast On
RF90 duration MB Number DummyScan Number FOV Shift Number Shift K0 Center Every Other Slice SER Number 2nd RFoff(1) Polarity(1) Dephase(0) Echo Distance MB Measurements Ramp On	5120 2 1 4 1 1 1 0 0 0 0 1.00 4 On

 $\verb|\USER\Feinberg| lab| Test| ICE-FLASH | ep2d_M2P4_OVS_flash| label{label} label{label} | ep2d_M2P4_OVS_flash| label{label} | ep2d_M2P4_OVS_flash| label{label} | ep2d_M2P4_OVS_flash| label{label} | ep3d_M2P4_OVS_flash| label| l$ 

TA: 1:40 PAT: 4	Voxel size: 0.8×0.8×5.0 mm	Rel. SNR: 1.00 USER:	ep2d_bold_OVS_flash
Properties		Sat. region 1	
Prio Recon	Off	Thickness	50 mm
Before measurement	Oli	Position	Isocenter
After measurement		Orientation	Coronal
Load to viewer	On	Sat. region 2	
Inline movie	Off	Thickness	50 mm
Auto store images	On	Position	L0.0 P60.0 H0.0
Load to stamp segments	Off	Orientation	Coronal
	Off	Special sat.	None
Load images to graphic	Oil	Table position	
segments	0#	Table position	H
Auto open inline display	Off	Table position	0 mm
Start measurement without	On	Inline Composing	Off
further preparation	0"	System	
Wait for user to start	Off		On
Start measurements	single	M2	On
Routine		B4	On
Slice group 1		M3	On
Slices	12	V32	Off
Dist. factor	200 %	V 32	
Position	Isocenter	Positioning mode	REF
Orientation		MSMA	S - C - T
	Transversal	Sagittal	R >> L
Phase enc. dir.	A >> P	Coronal	A >> P
Rotation	0.00 deg	Transversal	F >> H
Phase oversampling	0 %	Coil Combine Mode	Sum of Squares
FoV read	200 mm	AutoAlign	
FoV phase	81.3 %	Auto Coil Select	Default
Slice thickness	5.00 mm		·····
TR	9120 ms	Shim mode	Standard
TE	379 ms	Adjust with body coil	Off
Averages	1	Confirm freq. adjustment	Off
Concatenations	1	Assume Silicone	Off
Filter	None	? Ref. amplitude 1H	0.000 V
Coil elements	B4;M2,3;T1	Adjustment Tolerance	Auto
Contract		Adjust volume	
Contrast	0"	Position	Isocenter
MTC	Off	Orientation	Transversal
Flip angle	90 deg	Rotation	0.00 deg
Fat suppr.	Fat sat.	R >> L	200 mm
Averaging mode	Long term	A >> P	163 mm
Reconstruction	Magnitude	F >> H	170 mm
Measurements	5		
Delay in TR	0 ms	Physio	
Multiple series	Off	1st Signal/Mode	None
'	OII	BOLD	
Resolution		GLM Statistics	Off
Base resolution	256	Dynamic t-maps	Off
Phase resolution	100 %	Starting ignore meas	0
Phase partial Fourier	6/8	Ignore after transition	0
Interpolation	Off	Model transition states	
DAT mede	CD A DD A		On
PAT mode	GRAPPA	Temp. highpass filter	On
Accel. factor PE	4	Threshold	4.00
Ref. lines PE	24	Paradigm size	20
Reference scan mode	Separate	Meas[1]	Baseline
Distortion Corr.	Off	Meas[2]	Baseline
Prescan Normalize	Off	Meas[3]	Baseline
Raw filter	On	Meas[4]	Baseline
Elliptical filter	Off	Meas[5]	Baseline
I	Off	Meas[6]	Baseline
Hamming	Oii	Meas[7]	Baseline
Geometry		Meas[8]	Baseline
Multi-slice mode	Interleaved	Meas[9]	Baseline
Series	Ascending	Meas[10]	Baseline
		Meas[11]	Active

Meas[11]

Active

Ν	/leas[12]	Active
Ν	/leas[13]	Active
Ν	/leas[14]	Active
N	/leas[15]	Active
Ν	/leas[16]	Active
N	/leas[17]	Active
N	/leas[18]	Active
N	/leas[19]	Active
N	/leas[20]	Active
Ν	Notion correction	On
Ir	nterpolation	3D-K-space
S	Spatial filter	Off

Sequence	
Introduction Asymmetric echo Bandwidth Free echo spacing Echo spacing	Off Off 1220 Hz/Px Off 0.98 ms
EPI factor RF pulse type Gradient mode RF spoiling	208 Normal Fast On
RF90 duration MB Number DummyScan Number FOV Shift Number SkewType(1ff) OVS flash(1on) SER Number Spoil factor Skew Direction Sat RF90 duration Dual On(1) Echo Distance MB Measurements Ramp On	5120 2 1 2 0 1 1 5 1 5120 1 1.00 2 On

 $\verb|\USER\Feinberg| lab| Test| ICE-FLASH | ep2d\_M2P4\_OVS\_flash\_D1| \\$ 

USER: ep2d\_bold\_OVS\_flash

Voxel size: 0.9×0.9×3.0 mm Rel. SNR: 1.00

TA: 0:22

PAT: 4

TA. 0.22 FA1. 4	VOXel Size. 0.9x0.9x3.0 mm	Rei. SINK. 1.00 USEK.	epzu_bolu_Ov3_liasii
		Cot rogion 1	
Properties		Sat. region 1 Thickness	50 mm
Prio Recon	Off	Position	L0.0 A99.0 H0.0
Before measurement		Orientation	Coronal
After measurement		Sat. region 2	Colonal
Load to viewer	On	Thickness	50 mm
Inline movie	Off	Position	L0.0 P60.0 H0.0
Auto store images	On	Orientation	Coronal
Load to stamp segments	Off	Special sat.	None
Load images to graphic	Off		
segments		Table position	Н
Auto open inline display	Off	Table position	0 mm
Start measurement without	On	Inline Composing	Off
further preparation		System	
Wait for user to start	Off	T1	On
Start measurements	single	M2	On
Routine		B4	On
Slice group 1		M3	On
Slices	12	V32	Off
Dist. factor	200 %		
Position	L1.2 A16.4 H26.2	Positioning mode	FIX
Orientation	T > C-15.0	MSMA	S - C - T
Phase enc. dir.	A >> P	Sagittal	R >> L
Rotation	0.00 deg	Coronal	A >> P
Phase oversampling	0 %	Transversal	F >> H
FoV read	220 mm	Coil Combine Mode	Sum of Squares
FoV phase	81.3 %	AutoAlign	
Slice thickness	3.00 mm	Auto Coil Select	Default
TR	2000 ms	Shim mode	Standard
TE	23 ms	Adjust with body coil	Off
Averages	1	Confirm freq. adjustment	Off
Concatenations	1	Assume Silicone	Off
Filter	None	? Ref. amplitude 1H	0.000 V
Coil elements	B4;M2,3;T1	Adjustment Tolerance	Auto
ı	, ,-,	Adjust volume	, 10.10
Contrast		! Position	L1.2 A21.2 H18.8
MTC	Off	! Orientation	T > C-15.0
Flip angle	50 deg	! Rotation	0.00 deg
Fat suppr.	Fat sat.	! R >> L	192 mm
Averaging mode	Long term	! A >> P	192 mm
Reconstruction	Magnitude	! F >> H	72 mm
Measurements	5	l Bu :	
Delay in TR	0 ms	Physio	
Multiple series	Off	1st Signal/Mode	None
Desclution		BOLD	
Resolution	256	GLM Statistics	Off
Base resolution Phase resolution		Dynamic t-maps	Off
	100 %	Starting ignore meas	0
Phase partial Fourier	6/8 Off	Ignore after transition	0
Interpolation	OII	Model transition states	On
PAT mode	GRAPPA	Temp. highpass filter	On
Accel. factor PE	4	Threshold	4.00
Ref. lines PE	24	Paradigm size	20
Reference scan mode	Separate	Meas[1]	Baseline
Diatoria - O		Meas[2]	Baseline
Distortion Corr.	Off	Meas[3]	Baseline
Prescan Normalize	Off	Meas[4]	Baseline
Raw filter	On Off	Meas[5]	Baseline
Elliptical filter	Off	Meas[6]	Baseline
Hamming	Off	Meas[7]	Baseline
Geometry		Meas[8]	Baseline
Multi-slice mode	Interleaved	Meas[9]	Baseline
Series	Ascending	Meas[10]	Baseline
	<u> </u>	Mooc[11]	Activo

Meas[11]

Active

Active
Active
Off
Off

Sequence	
Introduction Asymmetric echo Bandwidth Free echo spacing Echo spacing	Off Off 1220 Hz/Px Off 0.94 ms
EPI factor RF pulse type Gradient mode RF spoiling	208 Normal Fast On
RF90 duration MB Number DummyScan Number FOV Shift Number SkewType(1ff) OVS flash(1on) SER Number Spoil factor Skew Direction Sat RF90 duration Dual On(1) Echo Distance MB Measurements Ramp On	5120 2 1 2 0 1 1 5 1 5120 1 1.00 2