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\\USER

fmri_studies

Michael Skeide

EMPRISE-7T

Quinpilot

mp2rage_0p7_p2_phPF68_FA5-3_T1900-2750_BW250

fMRI_1p75_TE24_TR2100_iPAT3_FS

fMRI_top-up_1p75_TE24_TR2100_iPAT3_FS

whole-brain_1p75_TE24_TR2100_iPAT3_FS

whole-brain_top-up_1p75_TE24_TR2100_iPAT3_FS

FLAIR_T12600

\\USER\\fmri_studies\\Michael Skeide\\EMPRISE-7T\\Quinpilot

TA: 0:47 PM: REF Voxel size: 1.0×1.0×5.0 mmPAT: Off Rel. SNR: 1.00 : tfl

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	On
Wait for user to start	Off
Start measurements	Single measurement

Contrast - Dynamic

Pause after meas. 2	0.0 s
Multiple series	Each measurement

Resolution - Common

FoV read	256 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
Base resolution	256
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Routine

Slice group	1
Slices	3
Dist. factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	50 %
Position	L0.0 P0.0 H12.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	1
Dist. factor	50 %
Position	L0.0 P0.0 H24.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Phase oversampling	0 %
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	3000.0 ms
TE	3.19 ms
Averages	1
Concatenations	5
Filter	None
Coil elements	A32

Resolution - iPAT

PAT mode	None
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Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	3
Dist. factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	50 %
Position	L0.0 P0.0 H12.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	1
Dist. factor	50 %
Position	L0.0 P0.0 H24.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	5.0 mm
TR	3000.0 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	5

Contrast - Common

TR	3000.0 ms
TE	3.19 ms
TD	0 ms
Magn. preparation	Slice-sel. IR
TI	1100 ms
Flip angle	6.0 deg
Fat suppr.	None
Water suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	3
Pause after meas. 1	0.0 s

Geometry - AutoAlign

Slice group	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	L0.0 P0.0 H12.0 mm

Geometry - AutoAlign

Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Position	L0.0 P0.0 H24.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	---
Initial Position	L0.0 P0.0 H24.0
L	0.0 mm
P	0.0 mm
H	24.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Coronal

Geometry - Navigator**System - Miscellaneous**

Positioning mode	REF
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	0.00 deg
A >> P	263 mm
R >> L	350 mm
F >> H	350 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.192120 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	3000.0 ms
Concatenations	5

Physio - Cardiac

Magn. preparation	Slice-sel. IR
TI	1100 ms

Physio - Cardiac

Fat suppr.	None
Dark blood	Off
FoV read	256 mm
FoV phase	100.0 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	5

Inline - Common

Subtract	Off
Measurements	3
StdDev	Off
Save original images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Inline - Composing

Distortion Corr.	Off
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Sequence - Part 1

Introduction	On
Dimension	2D
Asymmetric echo	Off
Flow comp.	No
Multi-slice mode	Sequential
Echo spacing	6.5 ms
Bandwidth	240 Hz/Px

Sequence - Part 2

RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	256

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	A32

Sequence - Assistant

Mode	Off
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\\USER\fmri_studies\Michael Skeide\EMPRISE-7T\mp2rage_0p7_p2_phPF68_FA5-3_T1900-2750_BW
250

TA: 10:57 PM: FIX Voxel size: 0.7×0.7×0.7 mmPAT: 2 Rel. SNR: 1.00 : tfl

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L0.6 A19.4 H6.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
Slice oversampling	15.4 %
Slices per slab	208
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
TR	5000.0 ms
TE	2.01 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	A32

Contrast - Common

TR	5000.0 ms
TE	2.01 ms
Magn. preparation	Non-sel. IR
TI 1	900 ms
TI 2	2750 ms
Flip angle 1	5.0 deg
Flip angle 2	3.0 deg
Fat suppr.	Water excit. fast
Water suppr.	None

Contrast - Dynamic

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	224 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
Base resolution	320
Phase resolution	100 %
Slice resolution	100 %

Resolution - Common

Phase partial Fourier	6/8
Slice partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	24
Accel. factor 3D	1
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L0.6 A19.4 H6.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	15.4 %
Slices per slab	208
FoV read	224 mm
FoV phase	100.0 %
Slice thickness	0.70 mm
TR	5000.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

Geometry - AutoAlign

Slab group	1
Position	L0.6 A19.4 H6.2 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L0.6 A19.4 H6.2
L	0.6 mm
A	19.4 mm
H	6.2 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

Geometry - Navigator

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm

System - Miscellaneous

MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L0.6 A7.9 H34.7 mm
! Orientation	Sagittal
! Rotation	22.75 deg
! A >> P	181 mm
! F >> H	132 mm
! R >> L	144 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.192120 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	5000.0 ms
Concatenations	1

Physio - Cardiac

Magn. preparation	Non-sel. IR
TI 1	900 ms
TI 2	2750 ms
Fat suppr.	Water excit. fast
Dark blood	Off
FoV read	224 mm
FoV phase	100.0 %
Phase resolution	100 %

Physio - PACE

Resp. control	Off
Concatenations	1

Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off

Inline - MIP

MIP-Tra	Off
MIP-Time	Off
Save original images	On

Inline - Composing

Distortion Corr.	Off
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Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Allowed
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	6.5 ms
Bandwidth	250 Hz/Px

Sequence - Part 2

RF pulse type	Fast
Gradient mode	Fast*
Excitation	Non-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	240

Sequence - Nuclei

TX/RX Nucleus	1H
TX/RX delta frequency	0 Hz
TX Nucleus	None
TX delta frequency	0 Hz
Coil elements	A32

Sequence - Assistant

Mode	Off
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\\USER\\fmri_studies\\Michael Skeide\\EMPRISE-7T\\fMRI_1p75_TE24_TR2100_iPAT3_FS

TA: 5:18 PM: FIX Voxel size: 1.7×1.7×1.8 mmPAT: 3 Rel. SNR: 1.00 : epfid

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	On
Start measurements	Single measurement

Routine

Slice group	1
Slices	41
Dist. factor	0 %
Position	L3.0 P2.6 H53.6 mm
Orientation	T > C-21.1
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.75 mm
TR	2100 ms
TE	24.00 ms
Multi-band accel. factor	1
Filter	None
Coil elements	A32

Contrast - Common

TR	2100 ms
TE	24.00 ms
MTC	Off
Magn. preparation	None
Flip angle	70 deg
Fat suppr.	Fat sat.

Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	145
Delay in TR	0 ms
Multiple series	Off

Resolution - Common

FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.75 mm
Base resolution	110
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	36
Reference scan mode	GRE

Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry - Common

Slice group	1
Slices	41
Dist. factor	0 %
Position	L3.0 P2.6 H53.6 mm
Orientation	T > C-21.1
Phase enc. dir.	A >> P
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.75 mm
TR	2100 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

Geometry - AutoAlign

Slice group	1
Position	L3.0 P2.6 H53.6 mm
Orientation	T > C-21.1
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	L3.0 P2.6 H53.6
L	3.0 mm
P	2.6 mm
H	53.6 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-21.1
> S	0.0

Geometry - Saturation

Fat suppr.	Fat sat.
Special sat.	None

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off

System - Adjustments

Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	L4.2 P2.6 H53.0 mm
! Orientation	T > C-21.1
! Rotation	0.00 deg
! A >> P	154 mm
! R >> L	192 mm
! F >> H	85 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.192120 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	2100 ms
Multi-band accel. factor	1

BOLD

GLM Statistics	Off
Dynamic t-maps	Off
Ignore meas. at start	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	20
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Measurements	145
Delay in TR	0 ms
Multiple series	Off

Sequence - Part 1

Introduction	Off
Contrasts	1
Flow comp.	No

Sequence - Part 1

Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.7 ms
Bandwidth	1684 Hz/Px

Sequence - Part 2

EPI factor	110
Gradient mode	Fast*
RF spoiling	Off

Sequence - Special

Excite pulse duration	3000 us
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
Force equal slice timing	Off
FFT scale factor	1.00
Fat saturation FA	110.0 deg
GRE iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\fmri_studies\Michael Skeide\EMPRISE-7T\fmri_top-up_1p75_TE24_TR2100_iPAT3_FS

TA: 0:34 PM: FIX Voxel size: 1.7×1.7×1.8 mmPAT: 3 Rel. SNR: 1.00 : epfid

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	On
Start measurements	Single measurement

Routine

Slice group	1
Slices	41
Dist. factor	0 %
Position	R4.3 P16.5 H39.1 mm
Orientation	T > C-27.3
Phase enc. dir.	P >> A
AutoAlign	---
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.75 mm
TR	2100 ms
TE	24.00 ms
Multi-band accel. factor	1
Filter	None
Coil elements	A32

Contrast - Common

TR	2100 ms
TE	24.00 ms
MTC	Off
Magn. preparation	None
Flip angle	70 deg
Fat suppr.	Fat sat.

Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	10
Delay in TR	0 ms
Multiple series	Off

Resolution - Common

FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.75 mm
Base resolution	110
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	36
Reference scan mode	GRE

Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry - Common

Slice group	1
Slices	41
Dist. factor	0 %
Position	R4.3 P16.5 H39.1 mm
Orientation	T > C-27.3
Phase enc. dir.	P >> A
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.75 mm
TR	2100 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

Geometry - AutoAlign

Slice group	1
Position	R4.3 P16.5 H39.1 mm
Orientation	T > C-27.3
Phase enc. dir.	P >> A
AutoAlign	---
Initial Position	R4.3 P16.5 H39.1
R	4.3 mm
P	16.5 mm
H	39.1 mm
Initial Rotation	-180.00 deg
Initial Orientation	T > C
T > C	-27.3
> S	0.0

Geometry - Saturation

Fat suppr.	Fat sat.
Special sat.	None

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off

System - Adjustments

Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	R4.3 P13.9 H35.1 mm
! Orientation	T > C-27.3
! Rotation	0.00 deg
! A >> P	175 mm
! R >> L	132 mm
! F >> H	87 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.192120 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	2100 ms
Multi-band accel. factor	1

BOLD

GLM Statistics	Off
Dynamic t-maps	Off
Ignore meas. at start	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	20
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Measurements	10
Delay in TR	0 ms
Multiple series	Off

Sequence - Part 1

Introduction	Off
Contrasts	1
Flow comp.	No

Sequence - Part 1

Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.7 ms
Bandwidth	1684 Hz/Px

Sequence - Part 2

EPI factor	110
Gradient mode	Fast*
RF spoiling	Off

Sequence - Special

Excite pulse duration	3000 us
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
Force equal slice timing	Off
FFT scale factor	1.00
Fat saturation FA	110.0 deg
GRE iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\\fmri_studies\\Michael Skeide\\EMPRISE-7T\\whole-brain_1p75_TE24_TR2100_iPAT3_FS

TA: 1:01 PM: FIX Voxel size: 1.7×1.7×1.8 mmPAT: 3 Rel. SNR: 1.00 : epfid

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	On
Start measurements	Single measurement

Routine

Slice group	1
Slices	80
Dist. factor	0 %
Position	R4.3 P16.5 H39.1 mm
Orientation	T > C-27.3
Phase enc. dir.	A >> P
AutoAlign	---
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.75 mm
TR	4000 ms
TE	24.00 ms
Multi-band accel. factor	1
Filter	None
Coil elements	A32

Contrast - Common

TR	4000 ms
TE	24.00 ms
MTC	Off
Magn. preparation	None
Flip angle	70 deg
Fat suppr.	Fat sat.

Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	10
Delay in TR	0 ms
Multiple series	Off

Resolution - Common

FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.75 mm
Base resolution	110
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	36
Reference scan mode	GRE

Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry - Common

Slice group	1
Slices	80
Dist. factor	0 %
Position	R4.3 P16.5 H39.1 mm
Orientation	T > C-27.3
Phase enc. dir.	A >> P
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.75 mm
TR	4000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

Geometry - AutoAlign

Slice group	1
Position	R4.3 P16.5 H39.1 mm
Orientation	T > C-27.3
Phase enc. dir.	A >> P
AutoAlign	---
Initial Position	R4.3 P16.5 H39.1
R	4.3 mm
P	16.5 mm
H	39.1 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-27.3
> S	0.0

Geometry - Saturation

Fat suppr.	Fat sat.
Special sat.	None

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off

System - Adjustments

Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	R4.3 P13.9 H35.1 mm
! Orientation	T > C-27.3
! Rotation	0.00 deg
! A >> P	175 mm
! R >> L	132 mm
! F >> H	87 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.192120 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	4000 ms
Multi-band accel. factor	1

BOLD

GLM Statistics	Off
Dynamic t-maps	Off
Ignore meas. at start	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	20
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Measurements	10
Delay in TR	0 ms
Multiple series	Off

Sequence - Part 1

Introduction	Off
Contrasts	1
Flow comp.	No

Sequence - Part 1

Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.7 ms
Bandwidth	1684 Hz/Px

Sequence - Part 2

EPI factor	110
Gradient mode	Fast*
RF spoiling	Off

Sequence - Special

Excite pulse duration	3000 us
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
Force equal slice timing	Off
FFT scale factor	1.00
Fat saturation FA	110.0 deg
GRE iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\\fmri_studies\\Michael Skeide\\EMPRISE-7T\\whole-brain_top-up_1p75_TE24_TR2100_iPAT3_F S
TA: 1:01 PM: FIX Voxel size: 1.7×1.7×1.8 mmPAT: 3 Rel. SNR: 1.00 : epfid

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	On
Start measurements	Single measurement

Routine

Slice group	1
Slices	80
Dist. factor	0 %
Position	R4.3 P16.5 H39.1 mm
Orientation	T > C-27.3
Phase enc. dir.	P >> A
AutoAlign	---
Phase oversampling	0 %
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.75 mm
TR	4000 ms
TE	24.00 ms
Multi-band accel. factor	1
Filter	None
Coil elements	A32

Contrast - Common

TR	4000 ms
TE	24.00 ms
MTC	Off
Magn. preparation	None
Flip angle	70 deg
Fat suppr.	Fat sat.

Contrast - Dynamic

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	10
Delay in TR	0 ms
Multiple series	Off

Resolution - Common

FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.75 mm
Base resolution	110
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	36

Resolution - iPAT

Reference scan mode	GRE
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Resolution - Filter Image

Distortion Corr.	Off
Prescan Normalize	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off
Hamming	Off

Geometry - Common

Slice group	1
Slices	80
Dist. factor	0 %
Position	R4.3 P16.5 H39.1 mm
Orientation	T > C-27.3
Phase enc. dir.	P >> A
FoV read	192 mm
FoV phase	100.0 %
Slice thickness	1.75 mm
TR	4000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

Geometry - AutoAlign

Slice group	1
Position	R4.3 P16.5 H39.1 mm
Orientation	T > C-27.3
Phase enc. dir.	P >> A
AutoAlign	---
Initial Position	R4.3 P16.5 H39.1
R	4.3 mm
P	16.5 mm
H	39.1 mm
Initial Rotation	-180.00 deg
Initial Orientation	T > C
T > C	-27.3
> S	0.0

Geometry - Saturation

Fat suppr.	Fat sat.
Special sat.	None

System - Miscellaneous

Positioning mode	FIX
Table position	H
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Matrix Optimization	Off
AutoAlign	---
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Standard
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

! Position	R4.3 P13.9 H35.1 mm
! Orientation	T > C-27.3
! Rotation	0.00 deg
! A >> P	175 mm
! R >> L	132 mm
! F >> H	87 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.192120 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	4000 ms
Multi-band accel. factor	1

BOLD

GLM Statistics	Off
Dynamic t-maps	Off
Ignore meas. at start	0
Ignore after transition	0
Model transition states	On
Temp. highpass filter	On
Threshold	4.00
Paradigm size	20
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Baseline
Meas[4]	Baseline
Meas[5]	Baseline
Meas[6]	Baseline
Meas[7]	Baseline
Meas[8]	Baseline
Meas[9]	Baseline
Meas[10]	Baseline
Meas[11]	Active
Meas[12]	Active
Meas[13]	Active
Meas[14]	Active
Meas[15]	Active
Meas[16]	Active
Meas[17]	Active
Meas[18]	Active
Meas[19]	Active
Meas[20]	Active
Motion correction	Off
Spatial filter	Off
Measurements	10
Delay in TR	0 ms
Multiple series	Off

Sequence - Part 1

Introduction	Off
Contrasts	1
Flow comp.	No
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.7 ms
Bandwidth	1684 Hz/Px

Sequence - Part 2

EPI factor	110
Gradient mode	Fast*
RF spoiling	Off

Sequence - Special

Excite pulse duration	3000 us
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
Force equal slice timing	Off
FFT scale factor	1.00
Fat saturation FA	110.0 deg
GRE iPAT ref. FA	12.0 deg
Physio recording	Off
Triggering scheme	Standard

\\USER\\fmri_studies\\Michael Skeide\\EMPRISE-7T\\FLAIR_T12600

TA: 4:02 PM: REF Voxel size: 0.7×0.7×2.0 mmPAT: 2 Rel. SNR: 1.00 : tirW

Properties

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	Off
Auto close inline display	Off
Start measurement without further preparation	Off
Wait for user to start	Off
Start measurements	Single measurement

Routine

Slice group	1
Slices	52
Dist. factor	30 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	R >> L
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	220 mm
FoV phase	81.3 %
Slice thickness	2.0 mm
TR	10000.0 ms
TE	75.0 ms
Averages	1
Concatenations	3
Filter	B1 filter
Coil elements	A32

Contrast - Common

TR	10000.0 ms
TE	75.0 ms
TD	0.0 ms
MTC	Off
Magn. preparation	Slice-sel. IR
T1	2600 ms
Flip angle	141 deg
Fat suppr.	Fat sat.
Fat sat. mode	Strong
Water suppr.	None
Restore magn.	Off
Freeze suppressed tissue	Off

Contrast - Dynamic

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

Resolution - Common

FoV read	220 mm
FoV phase	81.3 %
Slice thickness	2.0 mm
Base resolution	320
Phase resolution	80 %
Phase partial Fourier	Off

Resolution - Common

Trajectory	Cartesian
Interpolation	Off

Resolution - iPAT

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	30
Reference scan mode	Integrated

Resolution - Filter Image

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	Off
Normalize	Off
B1 filter	On
Unfiltered images	Off

Resolution - Filter Rawdata

Raw filter	Off
Elliptical filter	Off

Geometry - Common

Slice group	1
Slices	52
Dist. factor	30 %
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	R >> L
FoV read	220 mm
FoV phase	81.3 %
Slice thickness	2.0 mm
TR	10000.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	3

Geometry - AutoAlign

Slice group	1
Position	Isocenter
Orientation	Transversal
Phase enc. dir.	R >> L
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
H	0.0 mm
Initial Rotation	90.00 deg
Initial Orientation	Transversal

Geometry - Saturation

Fat suppr.	Fat sat.
Fat sat. mode	Strong
Water suppr.	None
Restore magn.	Off
Special sat.	None

Geometry - Navigator

Geometry - Tim CT

Tim CT mode	Off
Slices	52
Slice thickness	2.0 mm
Dist. factor	30 %
FoV read	220 mm
FoV phase	81.3 %

System - Miscellaneous

Positioning mode	REF
Table position	F
Table position	0 mm
MSMA	S - C - T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Default

System - Adjustments

B0 Shim mode	Brain
B1 Shim mode	TrueForm
Confirm freq. adjustment	Off
Assume Dominant Fat	Off
Assume Silicone	Off
Adjustment Tolerance	Auto

System - Adjust Volume

Position	Isocenter
Orientation	Transversal
Rotation	90.00 deg
R >> L	179 mm
A >> P	220 mm
F >> H	135 mm
Reset	Off

System - Tx/Rx

Frequency 1H	297.192120 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

Physio - Signal1

1st Signal/Mode	None
TR	10000.0 ms
Concatenations	3

Physio - Cardiac

Magn. preparation	Slice-sel. IR
TI	2600 ms
Fat suppr.	Fat sat.
Dark blood	Off
FoV read	220 mm
FoV phase	81.3 %
Phase resolution	80 %
Trajectory	Cartesian

Physio - PACE

Resp. control	Off
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Physio - PACE

Concatenations	3
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Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

Inline - MIP

MIP-Sag	Off
MIP-Cor	Off
MIP-Tra	Off
MIP-Time	Off
Save original images	On

Inline - Composing

Distortion Corr.	Off
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Sequence - Part 1

Introduction	On
Dimension	2D
Compensate T2 decay	Off
Reduce Motion Sens.	On
Contrasts	1
Flow comp.	No
Optimization	In phase
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	7.46 ms
Bandwidth	401 Hz/Px

Sequence - Part 2

Define	Turbo factor
Echo trains per slice	7
Phase correction	Automatic
Acoustic noise reduction	None
RF pulse type	Normal
Gradient mode	Fast
Hyperecho	Off
WARP	On
Red. EC sensitivity	Off
Turbo factor	17

Sequence - Assistant

Mode	Min flip angle
Min flip angle	130 deg
Allowed delay	60 s