## \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\localizer\_64ch

TA: 0:12 PM: REF Voxel size: 0.5×0.5×7.0 mmPAT: Off Rel. SNR: 1.00 : fl

#### **Properties**

Prio recon	On
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	On
Load images to graphic segments	On
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

Routine	
Slice group	1
Slices	1
Dist. factor	20 %
Position	L0.0 A20.0 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	20 %
Position	L0.0 A20.0 H0.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	1
Dist. factor	20 %
Position	L0.0 A20.0 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	
Phase oversampling	0 %
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
TR	7.5 ms
TE	3.69 ms
Averages	2
Concatenations	3
Filter	Prescan Normalize, Elliptical filter
Coil elements	HC1-7

#### **Contrast - Common**

TR	7.5 ms
TE	3.69 ms
TD	0 ms
MTC	Off
Magn. preparation	None
Flip angle	20 deg
Fat suppr.	None
Water suppr.	None
SWI	Off

### **Contrast - Dynamic**

Averages	2
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

#### **Contrast - Dynamic**

Multiple series

Resolution - Common		
FoV read	250 mm	
FoV phase	100.0 %	
Slice thickness	7.0 mm	
Base resolution	256	
Phase resolution	91 %	
Phase partial Fourier	Off	
Interpolation	On	

Each measurement

#### **Resolution - iPAT**

PAT mode	Nlana
IPAT mode	None
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#### **Resolution - Filter Image**

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

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	On

#### **Geometry - Common**

Geometry - Common	
Slice group	1
Slices	1
Dist. factor	20 %
Position	L0.0 A20.0 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	1
Dist. factor	20 %
Position	L0.0 A20.0 H0.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	1
Dist. factor	20 %
Position	L0.0 A20.0 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	250 mm
FoV phase	100.0 %
Slice thickness	7.0 mm
TR	7.5 ms
Multi-slice mode	Sequential
Series	Interleaved
Concatenations	3

## **Geometry - AutoAlign**

Slice group	1
Position	L0.0 A20.0 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	L0.0 A20.0 H0.0 mm

### **Geometry - AutoAlign**

Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Position	L0.0 A20.0 H0.0 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	
Initial Position	L0.0 A20.0 H0.0
L	0.0 mm
Α	20.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

### **Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	None
Water suppr.	None
Special sat.	None

## **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

#### **System - Miscellaneous**

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

### **System - Adjustments**

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

## **System - Adjust Volume**

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

## System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slice-sel.

### System - Tx/Rx

Frequency 1H	123.208064 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	7.5 ms
Concatenations	3
Segments	1

## Physio - Cardiac

Tagging	None
Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	250 mm
FoV phase	100.0 %
Phase resolution	91 %

## **Physio - PACE**

Resp. control	Off
Concatenations	3

#### **Inline - Common**

Subtract	Off
Measurements	1
StdDev	Off
Liver registration	Off
Save original images	On

#### Inline - MIP

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

#### **Inline - Soft Tissue**

Wash - In	Off
Wash - Out	Off
TTP	Off
PEI	Off
MIP - time	Off
Measurements	1

## Inline - Composing

Inline Composing	Off
Distortion Corr.	Off

### Inline - MapIt

Save original images	On
MapIt	None
Flip angle	20 deg
Measurements	1
Contrasts	1
TR	7.5 ms
TE	3.69 ms

### Sequence - Part 1

Introduction	Om
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# SIEMENS MAGNETOM Prisma\_fit

# Sequence - Part 1

[	
Dimension	2D
Phase stabilisation	Off
Asymmetric echo	Allowed
Contrasts	1
Flow comp.	No
Multi-slice mode	Sequential
Bandwidth	320 Hz/Px

# Sequence - Part 2

Segments	1
Acoustic noise reduction	None
RF pulse type	Fast
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On

# Sequence - Assistant

Mode	Off
Allowed delay	0 s

## $\verb|\USER|INVESTIGATORS|\ A nastasia \\ \verb|BANDA|.2016.02.21|\ AAHead\_Scout|$

TA: 0:14 PM: REF Voxel size: 1.6×1.6×1.6 mmPAT: 3 Rel. SNR: 1.00 : fl

#### **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	On
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

### Routine

Slab group	1
Slabs	1
Dist. factor	20 %
Position	L0.0 A10.0 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	128
FoV read	260 mm
FoV phase	100.0 %
Slice thickness	1.6 mm
TR	3.15 ms
TE	1.37 ms
Averages	1
Concatenations	1
Filter	Prescan Normalize
Coil elements	HC1-7;NC1,2

### **Contrast - Common**

TR	3.15 ms
TE	1.37 ms
Flip angle	8 deg

### **Contrast - Dynamic**

Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	1

### **Resolution - Common**

FoV read	260 mm	
FoV phase	100.0 %	
Slice thickness	1.6 mm	
Base resolution	160	
Phase resolution	100 %	
Slice resolution	69 %	
Phase partial Fourier	6/8	
Slice partial Fourier	6/8	
Trajectory	Cartesian	

#### **Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	3
Ref. lines PE	24
Accel. factor 3D	1

#### **Resolution - iPAT**

Reference scan mode	Integrated	
Posolution - Filter Image		

#### Resolution - Filter Image

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

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

### **Geometry - Common**

Slab group	1
Slabs	1
Dist. factor	20 %
Position	L0.0 A10.0 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	128
FoV read	260 mm
FoV phase	100.0 %
Slice thickness	1.6 mm
TR	3.15 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	1

### **Geometry - AutoAlign**

Slab group	1
Position	L0.0 A10.0 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Transversal

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	REF
Table position	Н
Table position	0 mm
MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off

Coil Select Mode	Off - AutoCoilSelect

## **System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	Off
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 - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Non-sel.

#### System - Tx/Rx

Frequency 1H	123.208064 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
? Ref. amplitude 1H	0.000 V

## Physio - PACE

Resp. control	Off
Concatenations	1

### Inline - Common

Flip angle	8 deg
Measurements	1
Time to center	6.2 s

### Inline - Inline

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**

Inline Composing	Off
Distortion Corr.	Off

## Inline - MapIt

Save original images	On
MapIt	None
Flip angle	8 deg
Measurements	1

## Inline - MapIt

Contrasts	1
TR	3.15 ms
TE	1.37 ms

## Sequence - Part 1

Introduction	On
Dimension	3D
Asymmetric echo	Weak
Contrasts	1
Multi-slice mode	Sequential
Bandwidth	540 Hz/Px

### Sequence - Part 2

RF pulse type	Fast
Gradient mode	Normal
Excitation	Non-sel.
RF spoiling	On

## **Sequence - Assistant**

Mode	Off

## \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_MGH\_T1w\_MPR\_vNav\_setter

TA: 0.2 s PM: FIX Voxel size: 8.0×8.0×8.0 mmRel. SNR: 1.00 : ABCD

#### **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

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L0.0 A25.0 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	32
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	8.00 mm
TR	9.9 ms
TE	4.6 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HC1-7
	·

#### **Contrast - Common**

TR	9.9 ms
TR TE	4.6 ms
MTC	Off
Flip angle Fat suppr.	2 deg
Fat suppr.	None

#### **Contrast - Dynamic**

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

#### **Resolution - Common**

FoV read	256 mm
FoV phase	100.0 %
Slice thickness	8.00 mm
Base resolution	32
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	6/8
Interpolation	Off

#### **Resolution - Filter Image**

Distortion Corr.	Off	
Prescan Normalize	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

#### **Geometry - Common**

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L0.0 A25.0 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	32
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	8.00 mm
TR	9.9 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

#### Geometry - AutoAlign

Slab group	1
Position	L0.0 A25.0 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	L0.0 A25.0 H0.0
L	0.0 mm
Α	25.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

### **Geometry - Saturation**

Fat suppr.	None
Special sat.	None

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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
Con Colcot Mode	Doladit

## **System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	Off
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 - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Non-sel.

# System - Tx/Rx

Frequency 1H	123.208064 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	2.000
Reset	Off
? Ref. amplitude 1H	0.000 V

# Physio - Signal1

1st Signal/Mode	None
TR	9.9 ms
Concatenations	1

# Sequence - Part 1

•	
Introduction	Off
Dimension	3D
Contrasts	1
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.26 ms
Bandwidth	5208 Hz/Px

# Sequence - Part 2

EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On

Protocol filename	MPRAGE

## $\verb|\USER|INVESTIGATORS|\ A nastasia| BANDA. 2016. 02. 21 \\|\ HCP\_MGH\_T1w\_MPR\_vNav| \\|\ INVESTIGATORS|\ A nastasia| BANDA. 2016. 02. 21 \\|\ HCP\_MGH\_T1w\_MPR\_vNav| \\|\ INVESTIGATORS|\ A nastasia| BANDA. 2016. 02. 21 \\|\ HCP\_MGH\_T1w\_MPR\_vNav| \\|\ INVESTIGATORS|\ A nastasia| BANDA. 2016. 02. 21 \\|\ HCP\_MGH\_T1w\_MPR\_vNav| \\|\ INVESTIGATORS|\ A nastasia| BANDA. 2016. 02. 21 \\|\ HCP\_MGH\_T1w\_MPR\_vNav| \\|\ HCP\_MGH\_$

TA: 7:50 PM: REF Voxel size: 0.8×0.8×0.8 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	On
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

Slab group	1
Slabs	1
Dist. factor	50 %
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
Slice oversampling	23.1 %
Slices per slab	208
FoV read	256 mm
FoV phase	93.8 %
Slice thickness	0.80 mm
TR	2400.0 ms
TE	2.18 ms
Averages	1
Concatenations	1
Filter	Prescan Normalize
Coil elements	HC1-7

#### **Contrast - Common**

TR TE	2400.0 ms
TE	2.18 ms
Magn. preparation	Non-sel. IR
TI	1040 ms
Flip angle	8.0 deg
Fat suppr. Water 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	256 mm	
FoV phase	93.8 %	
Slice thickness	0.80 mm	
Base resolution	320	
Phase resolution	100 %	
Slice resolution	100 %	
Phase partial Fourier	Off	
Slice partial Fourier	Off	
Interpolation	Off	

#### **Resolution - iPAT**

PAT mode	GRAPPA	
Accel. factor PE	2	
Ref. lines PE	32	
Accel. factor 3D	1	
Reference scan mode	Integrated	

### **Resolution - Filter Image**

Image Filter	Off
Distortion Corr.	Off
Prescan Normalize	On
Unfiltered images	On
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	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	23.1 %
Slices per slab	208
FoV read	256 mm
FoV phase	93.8 %
Slice thickness	0.80 mm
TR	2400.0 ms
Multi-slice mode	Single shot
Series	Interleaved
Concatenations	1

#### **Geometry - AutoAlign**

	<u> </u>
Slab group	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	REF
Table position	Н
Table position	0 mm
MSMA	S-C-T
Sagittal	R >> L

Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - All

## **System - Adjustments**

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

## System - Adjust Volume

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	240 mm
F >> H	256 mm
R >> L	167 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Non-sel.

## System - Tx/Rx

Frequency 1H	123.208064 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	5.000
Reset	Off
? Ref. amplitude 1H	0.000 V

## Physio - Signal1

1st Signal/Mode	None
TR	2400.0 ms
Concatenations	1

### Physio - Cardiac

•	
Magn. preparation	Non-sel. IR
TI	1040 ms
Fat suppr.	Water excit. fast
Dark blood	Off
FoV read	256 mm
FoV phase	93.8 %
Phase resolution	100 %

#### **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

#### Inline - MIP

Save original images	On	
Inline Composing		
Inline - Composing		
Inline Composing	Off	
Distortion Corr.	Off	

### Inline - MapIt

Save original images	On
Maplt	None
Flip angle	8.0 deg
Measurements	1
Contrasts	1
TR	2400.0 ms
TE	2.18 ms

# Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Asymmetric echo	Allowed
Contrasts	1
Flow comp.	No
Multi-slice mode	Single shot
Echo spacing	7.9 ms
Bandwidth	220 Hz/Px

## Sequence - Part 2

RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On
Turbo factor	300

### Sequence - Special

Readout polarity	Positive
Nav. location	After
Apply moco to	parent and nav
Remeasure	24 TRs
Reacq. threshold	0.50
Feedback delay	80 ms
Moco ref. image	Use Temp Ref
K-space streaming	None
ABCD navigator	On
Add. grad time	0.0 ms
Apply freq to	parent and nav
Averaging	None

## Sequence - Assistant

Mode	Off

## $\verb|\USER|INVESTIGATORS|| A nastasia | BANDA. 2016.02.21 | HCP\_CMRR\_dMRI\_dir98\_AP|| A part of the property of$

TA: 5:37 PM: REF Voxel size: 1.5×1.5×1.5 mmPAT: Off Rel. SNR: 1.00 : epse

#### **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	Off
preparation	_
Wait for user to start	On
Start measurements	Single measurement

### Routine

Slice group	1
Slices	92
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	3230 ms
TE	89.20 ms
Multi-band accel. factor	4
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	3230 ms
TE	89.20 ms
MTC	Off
Magn. preparation	None
Flip angle	78 deg
Refocus flip angle	160 deg
Fat suppr.	None
Grad. rev. fat suppr.	Enabled

#### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
Base resolution	140
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

### **Resolution - iPAT**

#### **Resolution - Filter Image**

Distortion Corr.	Off	
Prescan Normalize	Off	
Dynamic Field Corr.	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

#### **Geometry - Common**

Slice group	1
Slices	92
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	3230 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	4

### **Geometry - AutoAlign**

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
P	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	None
Grad. rev. fat suppr.	Enabled
Special sat.	None

### **Geometry - Navigator**

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	REF
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

## **System - Adjustments**

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

## **System - Adjust Volume**

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	210 mm
A >> P R >> L F >> H	210 mm
F >> H	138 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm
--------------	----------

## System - Tx/Rx

Frequency 1H	123.208064 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	3230 ms
Multi-band accel. factor	4

## Physio - PACE

Resp. control	Off	٦
Multi-band accel, factor	4	

### Diff - Neuro

Diffusion mode	Free
Diff. directions	98
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm²
b-value 2	3000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
FA maps	Off
Mosaic	On
Tensor	Off
Noise level	40

### Diff - Body

Diffusion mode	Free
Diff. directions	98
Diffusion Scheme	Monopolar

## Diff - Body

Diff. weightings	2
b-value 1	0 s/mm²
b-value 2	3000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm²
Noise level	40

## **Diff - Composing**

Inline Composing	Off
Distortion Corr.	Off

## Sequence - Part 1

Introduction	On
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.69 ms
Bandwidth	1700 Hz/Px

## Sequence - Part 2

EPI factor	140
Gradient mode	Performance
RF spoiling	Off

Excite pulse duration	3840 us
Refocus pulse duration	7680 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	On
Invert RO/PE polarity	Off
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off

### \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_dMRI\_dir98\_PA

TA: 5:37 PM: FIX Voxel size: 1.5×1.5×1.5 mmPAT: Off Rel. SNR: 1.00 : epse

#### **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	On
Start measurements	Single measurement

### Routine

Slice group	1
Slices	92
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	3230 ms
TE	89.20 ms
Multi-band accel. factor	4
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

3230 ms
89.20 ms
Off
None
78 deg
160 deg
None
Enabled

#### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
Base resolution	140
Phase resolution	100 %
Phase partial Fourier	6/8
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None

#### **Resolution - Filter Image**

Distortion Corr.	Off	
Prescan Normalize	Off	
Dynamic Field Corr.	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

### **Geometry - Common**

Slice group	1
Slices	92
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	3230 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	4

### Geometry - AutoAlign

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
P	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	None
Grad. rev. fat suppr.	Enabled
Special sat.	None

### **Geometry - Navigator**

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

## **System - Adjustments**

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

## **System - Adjust Volume**

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	210 mm
R >> L	210 mm
F >> H	138 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode TrueForm	B1 Shim mode	TrueForm
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## System - Tx/Rx

Frequency 1H	123.208064 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	3230 ms
Multi-band accel. factor	4

### Physio - PACE

Resp. control	Off	
Multi-band accel, factor	4	

### **Diff - Neuro**

Diffusion mode	Free
Diff. directions	98
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm²
b-value 2	3000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
FA maps	Off
Mosaic	On
Tensor	Off
Noise level	40

### Diff - Body

Diffusion mode	Free
Diff. directions	98
Diffusion Scheme	Monopolar

### Diff - Body

Diff. weightings	2
b-value 1	0 s/mm²
b-value 2	3000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm²
Noise level	40

## **Diff - Composing**

Inline Composing	Off
Distortion Corr.	Off

## Sequence - Part 1

Introduction	On
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.69 ms
Bandwidth	1700 Hz/Px

## Sequence - Part 2

EPI factor	140
Gradient mode	Performance
RF spoiling	Off

Excite pulse duration	3840 us
Refocus pulse duration	7680 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	On
Invert RO/PE polarity	On
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off

## \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_SpinEchoFieldMap\_AP

TA: 0:32 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off Rel. SNR: 1.00 : epse

#### **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	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	8000 ms
TE	66.00 ms
Multi-band accel. factor	1
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	8000 ms
TE	66.00 ms
MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled

### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	3
Delay in TR	0 ms
Multiple series	Off

## **Resolution - Common**

Phase partial Fourier	Off	
Phase resolution	100 %	
Base resolution	104	
Slice thickness	2.00 mm	
FoV phase	100.0 %	
FoV read	208 mm	

#### **Resolution - iPAT**

DAT	Nama
PAT mode	None

#### **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	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	8000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

### Geometry - AutoAlign

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled
Special sat.	None

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain

Coil Sele	ect Mode	Off - All
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## **System - Adjustments**

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm
2 : 0:	

# System - Tx/Rx

Frequency 1H	123.208064 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	8000 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	Off
Temp. highpass filter	Off
Threshold	4.00
Paradigm size	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off
Measurements	3
Delay in TR	0 ms
Multiple series	Off

## Sequence - Part 1

Introduction	Off
Contrasts	1
Multi-slice mode	Interleaved
Free echo spacing	On
Echo spacing	0.58 ms
Bandwidth	2290 Hz/Px

## Sequence - Part 2

EPI factor	104
RF pulse type	Normal
Gradient mode	Performance

SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

## \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_SpinEchoFieldMap\_PA

TA: 0:32 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off Rel. SNR: 1.00 : epse

#### **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	On
preparation	
Wait for user to start	Off
Start measurements	Single measurement

### Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	8000 ms
TE	66.00 ms
Multi-band accel. factor	1
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	8000 ms
TE	66.00 ms
MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled

### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	3
Delay in TR	0 ms
Multiple series	Off

## **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

DAT	Niana
IPAT mode	None

#### **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	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	8000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

### Geometry - AutoAlign

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
P	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled
Special sat.	None

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain

Coil Select Mode Off - All
----------------------------

## **System - Adjustments**

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

## **System - Adjust Volume**

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm

## System - Tx/Rx

Frequency 1H	123.208064 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	8000 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	Off
Temp. highpass filter	Off
Threshold	4.00
Paradigm size	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off
Measurements	3
Delay in TR	0 ms
Multiple series	Off

## Sequence - Part 1

Introduction	Off
Contrasts	1
Multi-slice mode	Interleaved
Free echo spacing	On
Echo spacing	0.58 ms
Bandwidth	2290 Hz/Px

## Sequence - Part 2

EPI factor	104
RF pulse type	Normal
Gradient mode	Performance

SENSE1 coil combine	Off
Invert RO/PE polarity	On
Disable freq. update	Off
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

## \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_fMRI\_rest\_AP

TA: 5:46 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off 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	Off
preparation	
Wait for user to start	On
Start measurements	Single measurement

### Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
TE	37.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR TE	800 ms
TE	37.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	420
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

1 – . –	
PAT mode	None

### **Resolution - Filter Image**

#### **Resolution - Filter Image**

Prescan Normalize	Off

#### **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	
Hamming	Off	

#### **Geometry - Common**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

### Geometry - AutoAlign

•	
Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

#### **Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

#### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composina	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

# System - Adjustments

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P R >> L F >> H Reset	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
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## System - Tx/Rx

Frequency 1H	123.208064 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	800 ms
Multi-band accel. factor	8

### **BOLD**

5025		
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	3	
Meas[1]	Baseline	
Meas[2]	Baseline	
Meas[3]	Active	
Motion correction	Off	
Spatial filter	Off	
Measurements	420	
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	0.58 ms
Bandwidth	2290 Hz/Px

## Sequence - Part 2

EPI factor	104
Gradient mode	Performance

## Sequence - Part 2

RF spoiling	Off	
Sequence - Special		

Excite pulse duration	6600 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

## \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_fMRI\_rest\_PA

TA: 5:46 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off 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	On
preparation	
Wait for user to start	On
Start measurements	Single measurement

### Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
TE	37.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	800 ms
TE	37.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	420
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None
I FA I IIIQQE	NOTE

### **Resolution - Filter Image**

Distortion Corr. Off

#### **Resolution - Filter Image**

-		
Prescan Normalize	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

#### **Geometry - Common**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

### Geometry - AutoAlign

_	
Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

#### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

# System - Adjustments

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P R >> L F >> H Reset	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
--------------	----------

## System - Tx/Rx

Frequency 1H	123.208064 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	800 ms
Multi-band accel. factor	8

## **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	3	
Meas[1]	Baseline	
Meas[2]	Baseline	
Meas[3]	Active	
Motion correction	Off	
Spatial filter	Off	
Measurements	420	
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	0.58 ms
Bandwidth	2290 Hz/Px

## Sequence - Part 2

EPI factor	104
Gradient mode	Performance

## Sequence - Part 2

RF spoiling	Off	
Seguence - Special		

Excite pulse duration	6600 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	On
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

### \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_dMRI\_dir99\_AP

TA: 5:41 PM: FIX Voxel size: 1.5×1.5×1.5 mmPAT: Off Rel. SNR: 1.00 : epse

#### **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	92
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	3230 ms
TE	89.20 ms
Multi-band accel. factor	4
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

-	
TR	3230 ms
TE	89.20 ms
MTC	Off
Magn. preparation	None
Flip angle	78 deg
Refocus flip angle	160 deg
Fat suppr.	None
Grad. rev. fat suppr.	Enabled

#### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

Interpolation	Off
Phase partial Fourier	6/8
Phase resolution	100 %
Base resolution	140
Slice thickness	1.50 mm
FoV phase	100.0 %
FoV read	210 mm

#### **Resolution - iPAT**

DAT I-	Name
IPAT mode	None

#### **Resolution - Filter Image**

Distortion Corr.	Off
Prescan Normalize	Off
Dynamic Field Corr.	Off

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off

### **Geometry - Common**

Slice group	1
Slices	92
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	3230 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	4

### Geometry - AutoAlign

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
P	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

#### **Geometry - Saturation**

Fat suppr.	None
Grad. rev. fat suppr.	Enabled
Special sat.	None

### **Geometry - Navigator**

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

## **System - Adjustments**

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

## **System - Adjust Volume**

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	210 mm
R >> L	210 mm
F >> H	138 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode TrueForm	B1 Shim mode	TrueForm
-----------------------	--------------	----------

## System - Tx/Rx

Frequency 1H	123.208064 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	3230 ms
Multi-band accel. factor	4

## Physio - PACE

Resp. control	Off
Multi-band accel. factor	4

### **Diff - Neuro**

Diffusion mode	Free
Diff. directions	99
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm²
b-value 2	3000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
FA maps	Off
Mosaic	On
Tensor	Off
Noise level	40

### Diff - Body

Diffusion mode	Free
Diff. directions	99
Diffusion Scheme	Monopolar

### Diff - Body

Diff. weightings	2
b-value 1	0 s/mm²
b-value 2	3000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm²
Noise level	40

## **Diff - Composing**

Inline Composing	Off	
Distortion Corr.	Off	

## Sequence - Part 1

Introduction	On
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.69 ms
Bandwidth	1700 Hz/Px

## Sequence - Part 2

EPI factor	140
Gradient mode	Performance
RF spoiling	Off

Excite pulse duration	3840 us
Refocus pulse duration	7680 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	On
Invert RO/PE polarity	Off
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off

### \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_dMRI\_dir99\_PA

TA: 5:41 PM: FIX Voxel size: 1.5×1.5×1.5 mmPAT: Off Rel. SNR: 1.00 : epse

#### **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	On
Start measurements	Single measurement

### Routine

Slice group	1
Slices	92
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	3230 ms
TE	89.20 ms
Multi-band accel. factor	4
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

-	
TR	3230 ms
TE	89.20 ms
MTC	Off
Magn. preparation	None
Flip angle	78 deg
Refocus flip angle	160 deg
Fat suppr.	None
Grad. rev. fat suppr.	Enabled

#### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	1
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

Interpolation	Off
Phase partial Fourier	6/8
Phase resolution	100 %
Base resolution	140
Slice thickness	1.50 mm
FoV phase	100.0 %
FoV read	210 mm

#### **Resolution - iPAT**

DAT	Niana
IPAT mode	None

#### **Resolution - Filter Image**

Distortion Corr.	Off	
Prescan Normalize	Off	
Dynamic Field Corr.	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	

#### **Geometry - Common**

Slice group	1
Slices	92
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	1.50 mm
TR	3230 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	4

#### **Geometry - AutoAlign**

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
P	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	None
Grad. rev. fat suppr.	Enabled
Special sat.	None

### **Geometry - Navigator**

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

## **System - Adjustments**

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

## System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P R >> L F >> H Reset	210 mm
R >> L	210 mm
F >> H	138 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode TrueForm
-----------------------

## System - Tx/Rx

Frequency 1H	123.208064 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	3230 ms
Multi-band accel. factor	4

### **Physio - PACE**

Resp. control	Off	٦
Multi-band accel, factor	4	

## Diff - Neuro

Diffusion mode	Free
Diff. directions	99
Diffusion Scheme	Monopolar
Diff. weightings	2
b-value 1	0 s/mm²
b-value 2	3000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
FA maps	Off
Mosaic	On
Tensor	Off
Noise level	40

### Diff - Body

Diffusion mode	Free
Diff. directions	99
Diffusion Scheme	Monopolar

## Diff - Body

Diff. weightings	2
b-value 1	0 s/mm²
b-value 2	3000 s/mm <sup>2</sup>
b-value 1	1
b-value 2	1
Diff. weighted images	On
Trace weighted images	Off
ADC maps	Off
Exponential ADC Maps	Off
FA maps	Off
Invert Gray Scale	Off
Calculated Image	Off
b-Value >=	0 s/mm²
Noise level	40

## **Diff - Composing**

Inline Composing	Off	
Distortion Corr.	Off	

## Sequence - Part 1

Introduction	On
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.69 ms
Bandwidth	1700 Hz/Px

## Sequence - Part 2

EPI factor	140
Gradient mode	Performance
RF spoiling	Off

Excite pulse duration	3840 us
Refocus pulse duration	7680 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
Time-shifted MB RF	Off
SENSE1 coil combine	On
Invert RO/PE polarity	On
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off

## \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_SpinEchoFieldMap\_AP

TA: 0:32 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off Rel. SNR: 1.00 : epse

#### **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	Off
preparation	
Wait for user to start	On
Start measurements	Single measurement

#### Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	8000 ms
TE	66.00 ms
Multi-band accel. factor	1
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

8000 ms
66.00 ms
Off
None
90 deg
180 deg
Fat sat.
Disabled

### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	3
Delay in TR	0 ms
Multiple series	Off

## **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None

#### **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	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	8000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

### Geometry - AutoAlign

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
P	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled
Special sat.	None

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain

Coil Select Mode	Off - All	
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## **System - Adjustments**

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm

## System - Tx/Rx

Frequency 1H	123.208064 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	8000 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	Off
Temp. highpass filter	Off
Threshold	4.00
Paradigm size	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off
Measurements	3
Delay in TR	0 ms
Multiple series	Off

## Sequence - Part 1

Introduction	Off
Contrasts	1
Multi-slice mode	Interleaved
Free echo spacing	On
Echo spacing	0.58 ms
Bandwidth	2290 Hz/Px

## Sequence - Part 2

EPI factor	104
RF pulse type	Normal
Gradient mode	Performance

SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

## \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_SpinEchoFieldMap\_PA

TA: 0:32 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off Rel. SNR: 1.00 : epse

#### **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

### Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	8000 ms
TE	66.00 ms
Multi-band accel. factor	1
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

-	
TR	8000 ms
TE	66.00 ms
MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled

#### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	3
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm	
FoV phase	100.0 %	
Slice thickness	2.00 mm	
Base resolution	104	
Phase resolution	100 %	
Phase partial Fourier	Off	
Interpolation	Off	

#### **Resolution - iPAT**

PAT mode	None
1 / 11 111000	140110

#### **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	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	8000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

### Geometry - AutoAlign

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
P	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled
Special sat.	None

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain

Coil Select Mode	Off - All	

## **System - Adjustments**

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P R >> L F >> H Reset	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm
Di Olimii modo	11401 01111

## System - Tx/Rx

Frequency 1H	123.208064 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	8000 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	Off
Temp. highpass filter	Off
Threshold	4.00
Paradigm size	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off
Measurements	3
Delay in TR	0 ms
Multiple series	Off

## Sequence - Part 1

Introduction	Off
Contrasts	1
Multi-slice mode	Interleaved
Free echo spacing	On
Echo spacing	0.58 ms
Bandwidth	2290 Hz/Px

## Sequence - Part 2

EPI factor	104
RF pulse type	Normal
Gradient mode	Performance

SENSE1 coil combine	Off
Invert RO/PE polarity	On
Disable freq. update	Off
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

## \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_fMRI\_rest\_AP

TA: 5:46 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off 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	Off
preparation	
Wait for user to start	On
Start measurements	Single measurement

### Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
TE	37.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	800 ms
TE	37.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	420
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None
IPAT Mode	None

### **Resolution - Filter Image**

Distortion Corr.	Off

#### **Resolution - Filter Image**

Prescan Normalize Off
-----------------------

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

### **Geometry - Common**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

#### **Geometry - AutoAlign**

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

#### **Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

#### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

# System - Adjustments

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm	
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## System - Tx/Rx

Frequency 1H	123.208064 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	800 ms
Multi-band accel. factor	8

## **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	3	
Meas[1]	Baseline	
Meas[2]	Baseline	
Meas[3]	Active	
Motion correction	Off	
Spatial filter	Off	
Measurements	420	
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	0.58 ms
Bandwidth	2290 Hz/Px

# Sequence - Part 2

EPI factor	104
Gradient mode	Performance

## Sequence - Part 2

Off

Excite pulse duration	6600 us
'	_
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

## \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_fMRI\_rest\_PA

TA: 5:46 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off 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	On
Wait for user to start	On
Start measurements	Single measurement

### Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
TE	37.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR TE	800 ms
TE	37.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	420
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None
I F A I IIIOUE	NOTE

### **Resolution - Filter Image**

Distortion Corr. Off

#### **Resolution - Filter Image**

Prescan Normalize	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

#### **Geometry - Common**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

### Geometry - AutoAlign

_	
Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

#### **Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

#### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

# System - Adjustments

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm	
--------------	----------	--

## System - Tx/Rx

Frequency 1H	123.208064 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	800 ms
Multi-band accel. factor	8

### **BOLD**

5025		
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	3	
Meas[1]	Baseline	
Meas[2]	Baseline	
Meas[3]	Active	
Motion correction	Off	
Spatial filter	Off	
Measurements	420	
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	0.58 ms
Bandwidth	2290 Hz/Px

# Sequence - Part 2

EPI factor	104
Gradient mode	Performance

# Sequence - Part 2

RF spoiling	Off	
Sequence - Special		

Excite pulse duration	6600 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	On
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

## $\verb|\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\\| HCP\_CMRR\_fMRI\_gambling\_AP|| A point of the property of th$

TA: 3:02 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off 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	Off
preparation	
Wait for user to start	On
Start measurements	Single measurement

#### Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
TE	37.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	800 ms
TE	37.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	215
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None
I FA I IIIQQE	NOTE

### **Resolution - Filter Image**

Distortion Corr. Off

#### **Resolution - Filter Image**

Prescan Normalize	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	
Hamming	Off	

#### **Geometry - Common**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

### Geometry - AutoAlign

_	
Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

#### **Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

#### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

# System - Adjustments

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P R >> L F >> H Reset	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
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## System - Tx/Rx

Frequency 1H	123.208064 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	800 ms
Multi-band accel. factor	8

### **BOLD**

5025		
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	3	
Meas[1]	Baseline	
Meas[2]	Baseline	
Meas[3]	Active	
Motion correction	Off	
Spatial filter	Off	
Measurements	215	
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	0.58 ms
Bandwidth	2290 Hz/Px

# Sequence - Part 2

EPI factor	104
Gradient mode	Performance

# Sequence - Part 2

RF spoiling	Off	
Sequence - Special		

Excite pulse duration	6600 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

## $\verb|\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\\| HCP\_CMRR\_fMRl\_gambling\_PA||$

TA: 3:02 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off 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	On
Wait for user to start	On
Start measurements	Single measurement

### Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
TE	37.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	800 ms
TE	37.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	215
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	Niana
IPAT mode	None

### **Resolution - Filter Image**

Distortion Corr.	Off

#### **Resolution - Filter Image**

Prescan Normalize	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	
Hamming	Off	

### **Geometry - Common**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

#### **Geometry - AutoAlign**

_	
Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

#### **Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

#### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	208 mm
A >> P R >> L F >> H Reset	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
--------------	----------

# System - Tx/Rx

Frequency 1H	123.208064 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	800 ms
Multi-band accel. factor	8

# 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	3	
Meas[1]	Baseline	
Meas[2]	Baseline	
Meas[3]	Active	
Motion correction	Off	
Spatial filter	Off	
Measurements	215	
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	0.58 ms
Bandwidth	2290 Hz/Px

# Sequence - Part 2

EPI factor	104
Gradient mode	Performance

RF spoiling	Off	
Seguence - Special		

Excite pulse duration	6600 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	On
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

# \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_SpinEchoFieldMap\_AP

TA: 0:32 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off Rel. SNR: 1.00 : epse

### **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	Off
preparation	
Wait for user to start	On
Start measurements	Single measurement

## Routine

O.I.	4
Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	8000 ms
TE	66.00 ms
Multi-band accel. factor	1
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	8000 ms
TE	66.00 ms
MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled

### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	3
Delay in TR	0 ms
Multiple series	Off

# **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

### **Resolution - iPAT**

DAT	Niana
IPAT mode	None

### **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	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	8000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

## Geometry - AutoAlign

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
P	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled
Special sat.	None

## **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

•	
Positioning mode	FIX
Table position	Н
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	Head > Brain

# System - Miscellaneous

0 110 1 414 1	0" 4"	
Coil Select Mode	Off - All	

# **System - Adjustments**

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
D i Oillii illoud	11401 01111

# System - Tx/Rx

Frequency 1H	123.208064 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	8000 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	Off
Temp. highpass filter	Off
Threshold	4.00
Paradigm size	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off
Measurements	3
Delay in TR	0 ms
Multiple series	Off

# Sequence - Part 1

Introduction	Off
Contrasts	1
Multi-slice mode	Interleaved
Free echo spacing	On
Echo spacing	0.58 ms
Bandwidth	2290 Hz/Px

# Sequence - Part 2

EPI factor	104
RF pulse type	Normal
Gradient mode	Performance

# Sequence - Special

SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

# \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_SpinEchoFieldMap\_PA

TA: 0:32 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off Rel. SNR: 1.00 : epse

### **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

## Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	8000 ms
TE	66.00 ms
Multi-band accel. factor	1
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	8000 ms
TE	66.00 ms
MTC	Off
Magn. preparation	None
Flip angle	90 deg
Refocus flip angle	180 deg
Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled

# **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	3
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

### **Resolution - iPAT**

PAT mode	None

### **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	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	8000 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	1

## **Geometry - AutoAlign**

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

## **Geometry - Saturation**

Fat suppr.	Fat sat.
Grad. rev. fat suppr.	Disabled
Special sat.	None

## **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain

# **System - Miscellaneous**

Coil Select Mode	Off - All

# **System - Adjustments**

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

# **System - Adjust Volume**

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
D i Oillii illoud	11401 01111

# System - Tx/Rx

Frequency 1H	123.208064 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	8000 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	Off
Temp. highpass filter	Off
Threshold	4.00
Paradigm size	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off
Measurements	3
Delay in TR	0 ms
Multiple series	Off

# Sequence - Part 1

Introduction	Off
Contrasts	1
Multi-slice mode	Interleaved
Free echo spacing	On
Echo spacing	0.58 ms
Bandwidth	2290 Hz/Px

# Sequence - Part 2

EPI factor	104
RF pulse type	Normal
Gradient mode	Performance

# Sequence - Special

SENSE1 coil combine	Off
Invert RO/PE polarity	On
Disable freq. update	Off
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

# \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_fMRI\_faceMatching\_AP

TA: 5:34 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off 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	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
TE	37.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	800 ms
TE	37.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

## **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	405
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

### **Resolution - iPAT**

PAT mode	None
I F A I IIIOUE	NOTE

## **Resolution - Filter Image**

Distortion Corr. Off

### **Resolution - Filter Image**

	Prescan Normalize	Off
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#### **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	
Hamming	Off	

### **Geometry - Common**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

### Geometry - AutoAlign

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P R >> L F >> H Reset	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
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# System - Tx/Rx

Frequency 1H	123.208064 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	800 ms
Multi-band accel. factor	8

# **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	3	
Meas[1]	Baseline	
Meas[2]	Baseline	
Meas[3]	Active	
Motion correction	Off	
Spatial filter	Off	
Measurements	405	
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	0.58 ms
Bandwidth	2290 Hz/Px

# Sequence - Part 2

EPI factor	104
Gradient mode	Performance

RF spoiling	Off	
Sequence - Special		

Excite pulse duration	6600 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

# \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_CMRR\_fMRI\_faceMatching\_PA

TA: 5:34 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off 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	On
preparation	
Wait for user to start	On
Start measurements	Single measurement

## Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
TE	37.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	800 ms
TE	37.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	405
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None
I FA I IIIQQE	NOTE

## **Resolution - Filter Image**

Distortion Corr.	Off

### **Resolution - Filter Image**

Prescan Normalize	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

### **Geometry - Common**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

### Geometry - AutoAlign

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P R >> L	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
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# System - Tx/Rx

Frequency 1H	123.208064 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	800 ms
Multi-band accel. factor	8

## **BOLD**

5025		
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	3	
Meas[1]	Baseline	
Meas[2]	Baseline	
Meas[3]	Active	
Motion correction	Off	
Spatial filter	Off	
Measurements	405	
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	0.58 ms
Bandwidth	2290 Hz/Px

# Sequence - Part 2

EPI factor	104
Gradient mode	Performance

RF spoiling	Off	
Sequence - Special		

Excite pulse duration	6600 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	On
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

# $\verb|\USER|INVESTIGATORS|\ A nastasia \\ \verb|BANDA|.2016|.02.21| \\ \verb|\HCP_CMRR_fMRI_conflict_AP| \\$

TA: 3:54 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off 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	Off
preparation	
Wait for user to start	On
Start measurements	Single measurement

## Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
TE	37.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	800 ms
TE	37.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

## **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	280
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

I — . — .	
PAT mode	None

# **Resolution - Filter Image**

Distortion Corr.	Off

### **Resolution - Filter Image**

Prescan Normalize	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

## **Geometry - Common**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

### **Geometry - AutoAlign**

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
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# System - Tx/Rx

Frequency 1H	123.208064 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	800 ms
Multi-band accel. factor	8

# **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	3	
Meas[1]	Baseline	
Meas[2]	Baseline	
Meas[3]	Active	
Motion correction	Off	
Spatial filter	Off	
Measurements	280	
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	0.58 ms
Bandwidth	2290 Hz/Px

# Sequence - Part 2

EPI factor	104
Gradient mode	Performance

RF spoiling	Off	
Sequence - Special		

Excite pulse duration	6600 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	Off
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

# $\verb|\USER|INVESTIGATORS|\ A nastasia \\ \verb|BANDA|.2016|.02.21| \\ \verb|\HCP_CMRR_fMRI_conflict_PA|. \\$

TA: 3:54 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off 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	On
Wait for user to start	On
Start measurements	Single measurement

### **Routine**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
TE	37.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR TE	800 ms
TE	37.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

## **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	280
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None

## **Resolution - Filter Image**

Distortion Corr.	Off

### **Resolution - Filter Image**

Prescan Normalize	Off

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

### **Geometry - Common**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

### **Geometry - AutoAlign**

_	
Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
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# System - Tx/Rx

Frequency 1H	123.208064 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	800 ms
Multi-band accel. factor	8

# **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	3	
Meas[1]	Baseline	
Meas[2]	Baseline	
Meas[3]	Active	
Motion correction	Off	
Spatial filter	Off	
Measurements	280	
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	0.58 ms
Bandwidth	2290 Hz/Px

# Sequence - Part 2

EPI factor	104
Gradient mode	Performance

RF spoiling	Off	
Sequence - Special		

Excite pulse duration	6600 us
· '	_
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	On
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

# $\verb|\USER|INVESTIGATORS|\ A nastasia \\ \verb|BANDA|.2016|.02.21| \\ \verb|\HCP_CMRR_fMRI_conflict_AP| \\$

TA: 3:54 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off 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	On
preparation	
Wait for user to start	On
Start measurements	Single measurement

### Routine

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
TE	37.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR TE	800 ms	
TE	37.00 ms	
MTC	Off	
Magn. preparation	None	
Flip angle	52 deg	
Fat suppr.	Fat sat.	

### **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	280
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

### **Resolution - iPAT**

PAT mode	None
TEAT MODE	INOHE

## **Resolution - Filter Image**

### **Resolution - Filter Image**

Prescan Normalize	Off

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

### **Geometry - Common**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

### **Geometry - AutoAlign**

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composina	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	208 mm
A >> P R >> L F >> H Reset	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
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# System - Tx/Rx

Frequency 1H	123.208064 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	800 ms
Multi-band accel. factor	8

# 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	3
Meas[1]	Baseline
Meas[2]	Baseline
Meas[3]	Active
Motion correction	Off
Spatial filter	Off
Measurements	280
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	0.58 ms
Bandwidth	2290 Hz/Px

# Sequence - Part 2

EPI factor	104
Gradient mode	Performance

RF spoiling	Off	
Sequence - Special		

-	quonto opoolai		
Exc	cite pulse duration	6600 us	
Sin	igle-band images	On	
MB	B LeakBlock kernel	On	
MB	dual kernel	Off	
MB	RF phase scramble	Off	
SE	NSE1 coil combine	Off	
Inv	ert RO/PE polarity	Off	
Dis	sable freq. update	Off	
On	line multi-band recon.	Online	
FF	T scale factor	1.00	
Ph	ysio recording	Off	
Tric	ggering scheme	Standard	

# $\verb|\USER|INVESTIGATORS|\ A nastasia \\ \verb|BANDA|.2016|.02.21| \\ \verb|\HCP_CMRR_fMRI_conflict_PA|. \\$

TA: 3:54 PM: FIX Voxel size: 2.0×2.0×2.0 mmPAT: Off 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	On
Wait for user to start	On
Start measurements	Single measurement

### **Routine**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
TE	37.00 ms
Multi-band accel. factor	8
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR TE	800 ms
TE	37.00 ms
MTC	Off
Magn. preparation	None
Flip angle	52 deg
Fat suppr.	Fat sat.

## **Contrast - Dynamic**

Averaging mode	Long term
Reconstruction	Magnitude
Measurements	280
Delay in TR	0 ms
Multiple series	Off

#### **Resolution - Common**

FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
Base resolution	104
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None
I F A I IIIOUE	NOTE

## **Resolution - Filter Image**

### **Resolution - Filter Image**

Prescan Normalize	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

### **Geometry - Common**

Slice group	1
Slices	72
Dist. factor	0 %
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
FoV read	208 mm
FoV phase	100.0 %
Slice thickness	2.00 mm
TR	800 ms
Multi-slice mode	Interleaved
Series	Interleaved
Multi-band accel. factor	8

### **Geometry - AutoAlign**

Slice group	1
Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	L0.0 P3.0 H6.0
R	0.0 mm
Р	3.0 mm
Н	6.0 mm
Initial Rotation	0.00 deg
Initial Orientation	T > C
T > C	-20.0
> S	0.0

### **Geometry - Saturation**

Fat suppr.	Fat sat.
Special sat.	None

### **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	Head > Brain
Coil Select Mode	Off - All

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

# System - Adjust Volume

Position	L0.0 P3.0 H6.0 mm
Orientation	T > C-20.0
Rotation	0.00 deg
A >> P	208 mm
R >> L	208 mm
F >> H	144 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
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# System - Tx/Rx

Frequency 1H	123.208064 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	800 ms
Multi-band accel. factor	8

# **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	3	
Meas[1]	Baseline	
Meas[2]	Baseline	
Meas[3]	Active	
Motion correction	Off	
Spatial filter	Off	
Measurements	280	
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	0.58 ms
Bandwidth	2290 Hz/Px

# Sequence - Part 2

EPI factor	104
Gradient mode	Performance

•		
RF spoiling	Off	
Sequence - Special		
English and the state of the state of	0000	

Excite pulse duration	6600 us
Single-band images	On
MB LeakBlock kernel	On
MB dual kernel	Off
MB RF phase scramble	Off
SENSE1 coil combine	Off
Invert RO/PE polarity	On
Disable freq. update	Off
Online multi-band recon.	Online
FFT scale factor	1.00
Physio recording	Off
Triggering scheme	Standard

# \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_MGH\_T2w\_SPC\_vNav\_setter

TA: 0.3 s PM: FIX Voxel size: 8.0×8.0×8.0 mmRel. SNR: 1.00 : ABCD

### **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	On
Start measurements	Single measurement

## Routine

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L0.0 A25.0 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	32
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	8.00 mm
TR	13.0 ms
TE	6.0 ms
Averages	1
Concatenations	1
Filter	None
Coil elements	HC1-7

#### **Contrast - Common**

TR	13.0 ms
ITE	6.0 ms
MTC	Off
Flip angle	2 deg
Fat suppr.	Water excit. normal

## **Contrast - Dynamic**

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

#### **Resolution - Common**

FoV read	256 mm
FoV phase	100.0 %
Slice thickness	8.00 mm
Base resolution	32
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	6/8
Interpolation	Off

### **Resolution - Filter Image**

Distortion Corr.	Off	
Prescan Normalize	Off	

#### **Resolution - Filter Rawdata**

Raw filter	Off
Elliptical filter	Off
Hamming	Off

### **Geometry - Common**

Slab group	1
Slabs	1
Dist. factor	50 %
Position	L0.0 A25.0 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	32
FoV read	256 mm
FoV phase	100.0 %
Slice thickness	8.00 mm
TR	13.0 ms
Multi-slice mode	Interleaved
Series	Interleaved
Concatenations	1

## **Geometry - AutoAlign**

Slab group	1
Position	L0.0 A25.0 H0.0 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	L0.0 A25.0 H0.0
L	0.0 mm
Α	25.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

## **Geometry - Saturation**

Fat suppr.	Water excit. normal
Special sat.	None

## **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
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	

# **System - Miscellaneous**

Coil Select Mode	Off - All

# **System - Adjustments**

B0 Shim mode	Tune up
B1 Shim mode	TrueForm
Adjust with body coil	Off
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 - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Non-sel.

## System - Tx/Rx

Frequency 1H	123.208064 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	50.000
Reset	Off
? Ref. amplitude 1H	0.000 V

# Physio - Signal1

1st Signal/Mode	None
TR	13.0 ms
Concatenations	1

# Sequence - Part 1

•	
Introduction	Off
Dimension	3D
Contrasts	1
Multi-slice mode	Interleaved
Free echo spacing	Off
Echo spacing	0.26 ms
Bandwidth	5208 Hz/Px

# Sequence - Part 2

EPI factor	32
RF pulse type	Normal
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On

# Sequence - Special

Protocol filename	T2-SPACE

# \\USER\INVESTIGATORS\Anastasia\BANDA.2016.02.21\HCP\_MGH\_T2w\_SPC\_vNav

TA: 6:58 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 2 Rel. SNR: 1.00 : spc

### **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	On
preparation	
Wait for user to start	Off
Start measurements	Single measurement

## Routine

Slab group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Phase oversampling	0 %
Slice oversampling	0.0 %
Slices per slab	208
FoV read	256 mm
FoV phase	93.8 %
Slice thickness	0.80 mm
TR	3200 ms
TE	564 ms
Averages	1.0
Concatenations	1
Filter	Prescan Normalize
Coil elements	HC1-7

### **Contrast - Common**

TR	3200 ms
TE	564 ms
MTC	Off
Magn. preparation	None
Fat suppr.	None
Blood suppr.	Off
Restore magn.	Off

## **Contrast - Dynamic**

Averages	1.0
Reconstruction	Magnitude
Measurements	1
Multiple series	Each measurement

#### **Resolution - Common**

FoV read	256 mm
FoV phase	93.8 %
Slice thickness	0.80 mm
Base resolution	320
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Allowed
Slice partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	GRAPPA
Accel. factor PE	2
Ref. lines PE	32
Accel. factor 3D	1
Reference scan mode	Integrated

## **Resolution - Filter Image**

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

#### **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	

### **Geometry - Common**

Slab group	1
Slabs	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice oversampling	0.0 %
Slices per slab	208
FoV read	256 mm
FoV phase	93.8 %
Slice thickness	0.80 mm
TR	3200 ms
Concatenations	1

## **Geometry - AutoAlign**

Slab group	1
Position	Isocenter
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	Head > Brain
Initial Position	Isocenter
L	0.0 mm
P	0.0 mm
Н	0.0 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

### **Geometry - Saturation**

Fat suppr.	None
Restore magn.	Off
Special sat.	None

## **Geometry - Tim Planning Suite**

Set-n-Go Protocol	Off
Table position	Н
Table position	0 mm
Inline Composing	Off

Positioning mode	FIX
Table position	Н
Table position	0 mm

# **System - Miscellaneous**

MSMA	S-C-T
Sagittal	R >> L
Coronal	A >> P
Transversal	F >> H
Coil Combine Mode	Adaptive Combine
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	Head > Brain
Coil Select Mode	Off - All

## **System - Adjustments**

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

## **System - Adjust Volume**

Position	Isocenter
Orientation	Sagittal
Rotation	0.00 deg
A >> P	240 mm
F >> H	256 mm
R >> L	167 mm
Reset	Off

# System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Non-sel.

# System - Tx/Rx

Frequency 1H	123.208064 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	5.000
Reset	Off
? Ref. amplitude 1H	0.000 V

# Physio - Signal1

1st Signal/Mode	None
Trigger delay	0 ms
TR	3200 ms
Concatenations	1

# Physio - Cardiac

Magn. preparation	None
Fat suppr.	None
Dark blood	Off
FoV read	256 mm
FoV phase	93.8 %
Phase resolution	100 %

## 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**

Inline Composing	Off
Distortion Corr.	Off

## Sequence - Part 1

Introduction	On
Dimension	3D
Elliptical scanning	Off
Reordering	Linear
Flow comp.	No
Echo spacing	3.86 ms
Adiabatic-mode	Off
Bandwidth	744 Hz/Px

# Sequence - Part 2

Echo train duration	1166 ms
RF pulse type	Fast
Gradient mode	Fast
Excitation	Non-sel.
Flip angle mode	T2 var
Turbo factor	314

## Sequence - Special

Include nav.	On
Apply moco to	parent and nav
Remeasure	18 TRs
Reacg. threshold	0.50
Feedback delay	80 ms
Moco ref. image	Use Temp Ref
K-space streaming	None
ABCD navigator	On
Apply freq to	parent and nav

## **Sequence - Assistant**