#### **Table of contents**

## \\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\T123-EPI\_DANCLA\_230615\localizer\_irtfl\_ptx

TA: 1:28 PM: REF Voxel size: 1.0×1.0×2.0 mmPAT: Off Rel. SNR: 1.00 : tfl

#### **Properties**

Prio recon	Off
Load images to viewer	On
Inline movie	Off
Auto store images	On
Load images to stamp segments	Off
Load images to graphic segments	Off
Auto open inline display	On
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	6
Dist. factor	600 %
Position	L1.5 A5.0 F25.3 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	8
Dist. factor	250 %
Position	L1.5 P21.0 H30.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	6
Dist. factor	700 %
Position	L1.5 A10.0 F25.9 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	
Phase oversampling	0 %
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	4300.0 ms
TE	3.46 ms
Averages	1
Concatenations	20
Filter	None
Coil elements	AC

#### **Contrast - Common**

TR	4300.0 ms
TE	3.46 ms
TD	0 ms
Magn. preparation	Slice-sel. IR
TI 1	840 ms
TI 2	2540 ms
Flip angle 1	5.0 deg
Flip angle 2	8.0 deg
Fat suppr.	None
Water suppr.	None

#### **Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude

#### **Contrast - Dynamic**

Measurements	1
Multiple series	Each measurement

#### **Resolution - Common**

FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
Base resolution	192
Phase resolution	100 %
Phase partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	None

### **Resolution - Filter Image**

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

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

Raw filter	Off
Elliptical filter	Off

#### **Geometry - Common**

Geometry - Common	
Slice group	1
Slices	6
Dist. factor	600 %
Position	L1.5 A5.0 F25.3 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Slices	8
Dist. factor	250 %
Position	L1.5 P21.0 H30.0 mm
Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Slices	6
Dist. factor	700 %
Position	L1.5 A10.0 F25.9 mm
Orientation	Coronal
Phase enc. dir.	R >> L
FoV read	200 mm
FoV phase	100.0 %
Slice thickness	2.0 mm
TR	4300.0 ms
Multi-slice mode	Sequential
Series	Ascending
Concatenations	20
	<u> </u>

Slice group	1
Position	L1.5 A5.0 F25.3 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slice group	2
Position	L1.5 P21.0 H30.0 mm

Orientation	Transversal
Phase enc. dir.	A >> P
Slice group	3
Position	L1.5 A10.0 F25.9 mm
Orientation	Coronal
Phase enc. dir.	R >> L
AutoAlign	
Initial Position	L1.5 A5.0 F25.3
L	1.5 mm
Α	5.0 mm
F	25.3 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

## **Geometry - Navigator**

### **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	Default

## **System - Adjustments**

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

### **System - Adjust Volume**

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

### System - pTx Volumes

B1 Shim mode	TrueForm	
Excitation	Slice-sel.	

## System - Tx/Rx

Frequency 1H	297.144452 MHz
Correction factor	1
Gain	High
Img. Scale Cor.	1.000
Reset	Off

#### System - Tx/Rx

! Ref. amplitude 1H	250.000 V

### Physio - Signal1

1st Signal/Mode	None
TR	4300.0 ms
Concatenations	20

### Physio - Cardiac

Magn. preparation	Slice-sel. IR
TI 1	840 ms
TI 2	2540 ms
Fat suppr.	None
Dark blood	Off
FoV read	200 mm
FoV phase	100.0 %
Phase resolution	100 %

#### **Physio - PACE**

Resp. control	Off	
Concatenations	20	

#### Inline - Common

Subtract	Off
Measurements	1
StdDev	Off
Save original images	On

#### Inline - MIP

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

### **Inline - Composing**

Inline Composing	Off
Distortion Corr.	Off

### Inline - MapIt

Save original images	On
MapIt	None
Flip angle 1	5.0 deg
Flip angle 2	8.0 deg
Measurements	1
TR	4300.0 ms
TE	3.46 ms

### Sequence - Part 1

Introduction	On
Dimension	2D
Asymmetric echo	Off
Flow comp.	No
Multi-slice mode	Sequential
Echo spacing	6.7 ms
Bandwidth	240 Hz/Px

### Sequence - Part 2

RF pulse type	Normal
Gradient mode	Fast
Excitation	Slice-sel.
RF spoiling	On
Incr. Gradient spoiling	Off
Turbo factor	192

# SIEMENS MAGNETOM Investigational\_Device\_7T

## \\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\T123-EPI\_DANCLA\_230615\18sI\_20TRs\_GRAPPA5\_FA0\_10

TA: 8:33 PM: REF Voxel size: 0.8×0.8×0.8 mmPAT: 5 Rel. SNR: 1.00 : nih5k

#### **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	Off
Start measurements	Single measurement

### Routine

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	35.8 ms
TR 2	25181 ms
TE 1	16.50 ms
Averages	1
Filter	None
Coil elements	AC

#### **Contrast - Common**

TR 1	35.8 ms
TR 2	25181 ms
TE 1	16.50 ms
Multi-echo spacing	29.9 ms
Magn. preparation	Non-sel. HSN IR
TI 1	854.4 ms
TI 2	2143.2 ms
Flip angle	10 deg
Fat suppr.	None
Magn. Prep. Shots	9

### **Contrast - Dynamic**

John Bynamio	
Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s

#### **Contrast - Dynamic**

Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

#### **Resolution - Common**

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
Base resolution	258
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	CAIPIRINHA
Acc. factor PE	1
Ref. lines PE	63
Acc. factor 3D	5
Ref. lines 3D	36
CAIPI 3D Shift	2
Reference Scan Mode	GRE/separate
CAIPI Mode (tooltip)	Skipped-CAIPI
Total PAT factor	5

## **Resolution - Filter Image**

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

## **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	

#### **Geometry - Common**

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	35.8 ms
TR 2	25181 ms

Slab group	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	

Initial Position	L1.6 A0.4 F25.7
L	1.6 mm
A F	0.4 mm
F	25.7 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

### **Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	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	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Default

## **System - Adjustments**

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

## **System - Adjust Volume**

! Position	L1.0 P2.8 H21.1 mm
! Orientation	Sagittal
! Rotation	12.30 deg
! A >> P	185 mm
! F >> H	101 mm
! R >> L	129 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Non-sel.

## System - Tx/Rx

Frequency 1H	297.144452 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

### Sequence - Part 1

Introduction	On
Dimension	3D

## Sequence - Part 1

Reordering	Linear
Contrasts	1
Echo spacing	0.99 ms
Bandwidth	1212 Hz/Px

### Sequence - Part 2

EPI factor	29
Segmentation	9
RF pulse type	Normal
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On
Turbo factor	36

### Sequence - Special

PATRef FA	3 deg
RF duration	340 us
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
ETL per RTEB	1
Invert PE	Off
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
SVDPC	On
Sym VASO	Off
Dual-pol. EPI	Off
Invert RO	Off
Invert 3D	Off
Disable PF reco	Off
Save sampling	Off
PE VComp	Off
Water Exc.	Binomial-11
External PC	per Series
FIDNavs	-none-
EPI rise time factor	1.10
Mosaic DICOMs	On
Modify Ice Config	On
G-factor map	Off
GRAPPA Regularization	50000 10^-6
HSN RF power scale	3.00
Inversion Delay	200 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	0

Mode	Off

## \\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\T123-EPI\_DANCLA\_230615\18sI\_20TRs\_GRAPPA3\_FA0\_10

TA: 13:42 PM: REF Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : nih5k

#### **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	Off
Start measurements	Single measurement

### Routine

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	35.8 ms
TR 2	40647 ms
TE 1	16.50 ms
Averages	1
Filter	None
Coil elements	AC

#### **Contrast - Common**

TR 1	35.8 ms
TR 2	40647 ms
TE 1	16.50 ms
Multi-echo spacing	29.9 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1284 ms
TI 2	3432 ms
Flip angle	10 deg
Fat suppr.	None
Magn. Prep. Shots	9

### **Contrast - Dynamic**

Averages	1
Averaging mode	Long term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s
Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s

#### **Contrast - Dynamic**

Pause after meas. 13	0.0 s	
Pause after meas. 14	0.0 s	
Pause after meas. 15	0.0 s	
Pause after meas. 16	0.0 s	
Pause after meas. 17	0.0 s	
Pause after meas. 18	0.0 s	
Pause after meas. 19	0.0 s	

#### **Resolution - Common**

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
Base resolution	258
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	CAIPIRINHA
Acc. factor PE	1
Ref. lines PE	63
Acc. factor 3D	3
Ref. lines 3D	36
CAIPI 3D Shift	2
Reference Scan Mode	GRE/separate
CAIPI Mode (tooltip)	Skipped-CAIPI
Total PAT factor	3

## **Resolution - Filter Image**

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

## **Resolution - Filter Rawdata**

Raw filter	Off	
Elliptical filter	Off	

#### **Geometry - Common**

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	35.8 ms
TR 2	40647 ms
·	

Slab group	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	

Initial Position	L1.6 A0.4 F25.7
L	1.6 mm
A F	0.4 mm
F	25.7 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

### **Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	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	Sum of Squares
Save uncombined	Off
Matrix Optimization	Off
AutoAlign	
Coil Select Mode	Default

## **System - Adjustments**

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

## **System - Adjust Volume**

! Position	L1.0 P2.8 H21.1 mm
! Orientation	Sagittal
! Rotation	12.30 deg
! A >> P	185 mm
! F >> H	101 mm
! R >> L	129 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Non-sel.

## System - Tx/Rx

Frequency 1H	297.144452 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

### Sequence - Part 1

Introduction	On
Dimension	3D

## Sequence - Part 1

Reordering	Linear
Contrasts	1
Echo spacing	0.99 ms
Bandwidth	1212 Hz/Px

### Sequence - Part 2

EPI factor	29
Segmentation	9
RF pulse type	Normal
Gradient mode	Fast
Excitation	Non-sel.
RF spoiling	On
Turbo factor	60

### Sequence - Special

PATRef FA	3 deg
RF duration	340 us
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
ETL per RTEB	1
Invert PE	Off
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
SVDPC	On
Sym VASO	Off
Dual-pol. EPI	Off
Invert RO	Off
Invert 3D	Off
Disable PF reco	Off
Save sampling	Off
PE VComp	Off
Water Exc.	Binomial-11
External PC	per Series
FIDNavs	-none-
EPI rise time factor	1.10
Mosaic DICOMs	On
Modify Ice Config	On
G-factor map	Off
GRAPPA Regularization	50000 10^-6
HSN RF power scale	3.00
Inversion Delay	200 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	0

Mode	Off

## \\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\T123-EPI\_DANCLA\_230615\18sI\_20TRs\_GRAPPA5\_FA0\_10 \_dualpol

TA: 10:03 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 5 Rel. SNR: 1.00 : nih5k

#### **Properties**

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

#### **Routine**

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Slab Scale	-10 %
Slices per slab	200
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	38.5 ms
TR 2	59406 ms
TE 1	16.50 ms
Averages	2
Filter	None
Coil elements	AC

#### **Contrast - Common**

TR 1	38.5 ms
TR 2	59406 ms
TE 1	16.50 ms
Multi-echo spacing	29.9 ms
Magn. preparation	Non-sel. HSN IR
TI 1	980 ms
TI 2	2520 ms
Flip angle	10 deg
Fat suppr.	None
Magn. Prep. Shots	9

### **Contrast - Dynamic**

Averages	2	
Averaging mode	Short term	
5 5		
Reconstruction	Magnitude	
Measurements	5	
Pause after meas. 1	0.0 s	
Pause after meas. 2	0.0 s	
Pause after meas. 3	0.0 s	
Pause after meas. 4	0.0 s	

#### **Resolution - Common**

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
Base resolution	258

### **Resolution - Common**

Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	CAIPIRINHA
Acc. factor PE	1
Ref. lines PE	63
Acc. factor 3D	5
Ref. lines 3D	36
CAIPI 3D Shift	2
Reference Scan Mode	GRE/separate
CAIPI Mode (tooltip)	Skipped-CAIPI
Total PAT factor	5

### **Resolution - Filter Image**

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

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

Raw filter	Off	
Elliptical filter	Off	

#### **Geometry - Common**

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	200
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	38.5 ms
TR 2	59406 ms

### **Geometry - AutoAlign**

Slab group	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	L1.6 A0.4 F25.7
L	1.6 mm
A	0.4 mm
F	25.7 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

### **Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	None

## **Geometry - Tim Planning Suite**

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

### **System - Miscellaneous**

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

## **System - Adjustments**

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

### **System - Adjust Volume**

! Position	L1.0 P2.8 H21.1 mm
! Orientation	Sagittal
! Rotation	12.30 deg
! A >> P	185 mm
! F >> H	101 mm
! R >> L	129 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

## System - Tx/Rx

Frequency 1H	297.144452 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

## Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Echo spacing	0.99 ms
Bandwidth	1212 Hz/Px

## Sequence - Part 2

EPI factor	29
Segmentation	9
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

## Sequence - Part 2

Turbo factor	40
1 4120 140101	

### Sequence - Special

D. TD. ( E.)	- 1
PATRef FA	3 deg
RF duration	340 us
RF BWT product	8
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
ETL per RTEB	1
Invert PE	Off
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
SVDPC	Off
Sym VASO	Off
Dual-pol. EPI	On
Invert RO	Off
Invert 3D	Off
Disable PF reco	Off
Save sampling	Off
PE VComp	Off
Water Exc.	Binomial-11
External PC	per Series
FIDNavs	-none-
EPI rise time factor	1.10
Mosaic DICOMs	On
Modify Ice Config	On
G-factor map	Off
GRAPPA Regularization	50000 10^-6
HSN RF power scale	3.00
Inversion Delay	200 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	0

Mode	Off	

## \\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\T123-EPI\_DANCLA\_230615\18sI\_20TRs\_GRAPPA3\_FA0\_10 \_dualpolSeparate

TA: 7:24 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : nih5k

#### **Properties**

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

#### Routine

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Slab Scale	-10 %
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	38.5 ms
TR 2	43563 ms
TE 1	16.50 ms
Averages	1
Filter	None
Coil elements	AC

#### **Contrast - Common**

TR 1	38.5 ms
TR 2	43563 ms
TE 1	16.50 ms
Multi-echo spacing	29.9 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1365 ms
TI 2	3675 ms
Flip angle	10 deg
Fat suppr.	None
Magn. Prep. Shots	9

#### **Contrast - Dynamic**

Contract Dynamic	
Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	10
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s

#### **Resolution - Common**

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
Base resolution	258
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	CAIPIRINHA
Acc. factor PE	1
Ref. lines PE	63
Acc. factor 3D	3
Ref. lines 3D	36
CAIPI 3D Shift	1
Reference Scan Mode	GRE/separate
CAIPI Mode (tooltip)	Skipped-CAIPI
Total PAT factor	3

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

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

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

Raw filter	Off
Elliptical filter	Off

#### **Geometry - Common**

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	38.5 ms
TR 2	43563 ms

Slab group	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	L1.6 A0.4 F25.7
L	1.6 mm
A	0.4 mm
F	25.7 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

## **Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	None

## **Geometry - Tim Planning Suite**

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

### **System - Miscellaneous**

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

## **System - Adjustments**

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

## **System - Adjust Volume**

! Position	L1.0 P2.8 H21.1 mm
! Orientation	Sagittal
! Rotation	12.30 deg
! A >> P	185 mm
! F >> H	101 mm
! R >> L	129 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

## System - Tx/Rx

Frequency 1H	297.144452 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

## Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Echo spacing	0.99 ms
Bandwidth	1212 Hz/Px

### Sequence - Part 2

EPI factor	29
Segmentation	9

## Sequence - Part 2

RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	60

## Sequence - Special

3 deg
340 us
8
1200 ms
10
0
0
1
Off
On
On
Off
Off
Off
On
Off
Binomial-11
per Series
-none-
1.10
On
On
Off
50000 10^-6
3.00
200 ms
0 ms
0

Mode	Off

## \\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\T123-EPI\_DANCLA\_230615\18sI\_20TRs\_GRAPPA3\_FA0\_10 \_dualpol

TA: 14:40 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : nih5k

#### **Properties**

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

#### Routine

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Slab Scale	-10 %
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	38.5 ms
TR 2	87126 ms
TE 1	16.50 ms
Averages	2
Filter	None
Coil elements	AC

#### **Contrast - Common**

TR 1	38.5 ms
TR 2	87126 ms
TE 1	16.50 ms
Multi-echo spacing	29.9 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1365 ms
TI 2	3675 ms
Flip angle	10 deg
Fat suppr.	None
Magn. Prep. Shots	9

### **Contrast - Dynamic**

A	0
Averages	2
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	5
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s

#### **Resolution - Common**

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
Base resolution	258

#### **Resolution - Common**

Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	CAIPIRINHA
Acc. factor PE	1
Ref. lines PE	63
Acc. factor 3D	3
Ref. lines 3D	36
CAIPI 3D Shift	1
Reference Scan Mode	GRE/separate
CAIPI Mode (tooltip)	Skipped-CAIPI
Total PAT factor	3

### **Resolution - Filter Image**

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

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

Raw filter	Off
Elliptical filter	Off

#### **Geometry - Common**

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	38.5 ms
TR 2	87126 ms

### **Geometry - AutoAlign**

Slab group	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	L1.6 A0.4 F25.7
L	1.6 mm
Α	0.4 mm
F	25.7 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

### **Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	None

## **Geometry - Tim Planning Suite**

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

### System - Miscellaneous

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

## **System - Adjustments**

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

## System - Adjust Volume

! Position	L1.0 P2.8 H21.1 mm
! Orientation	Sagittal
! Rotation	12.30 deg
! A >> P	185 mm
! F >> H	101 mm
! R >> L	129 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

## System - Tx/Rx

Frequency 1H	297.144452 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

## Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Echo spacing	0.99 ms
Bandwidth	1212 Hz/Px

### Sequence - Part 2

EPI factor	29
Segmentation	9
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On

## Sequence - Part 2

Turbo factor	60	

### Sequence - Special

PATRef FA	3 deg
RF duration	340 us
RF BWT product	8
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
ETL per RTEB	1
Invert PE	Off
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
SVDPC	Off
Sym VASO	Off
Dual-pol. EPI	On
Invert RO	Off
Invert 3D	Off
Disable PF reco	Off
Save sampling	Off
PE VComp	Off
Water Exc.	Binomial-11
External PC	per Series
FIDNavs	-none-
EPI rise time factor	1.10
Mosaic DICOMs	On
Modify Ice Config	On
G-factor map	Off
GRAPPA Regularization	50000 10^-6
HSN RF power scale	3.00
Inversion Delay	200 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	0

Mode	Off
	-

## \\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\T123-EPI\_DANCLA\_230615\18sI\_20TRs\_GRAPPA3\_FA0\_10 \_dualpolSeparate\_PHASE

TA: 7:24 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : nih5k

#### **Properties**

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

#### Routine

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Slab Scale	-10 %
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	38.5 ms
TR 2	43563 ms
TE 1	16.50 ms
Averages	1
Filter	None
Coil elements	AC

#### **Contrast - Common**

TR 1	38.5 ms
TR 2	43563 ms
TE 1	16.50 ms
Multi-echo spacing	29.9 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1365 ms
TI 2	3675 ms
Flip angle	10 deg
Fat suppr.	None
Magn. Prep. Shots	9

#### **Contrast - Dynamic**

Contract Bynamic	
Averages	1
Averaging mode	Short term
Reconstruction	Magn./Phase
Measurements	10
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s

#### **Resolution - Common**

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
Base resolution	258
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	CAIPIRINHA
Acc. factor PE	1
Ref. lines PE	63
Acc. factor 3D	3
Ref. lines 3D	36
CAIPI 3D Shift	1
Reference Scan Mode	GRE/separate
CAIPI Mode (tooltip)	Skipped-CAIPI
Total PAT factor	3

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

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

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

Raw filter	Off	
Elliptical filter	Off	

#### **Geometry - Common**

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	38.5 ms
TR 2	43563 ms

Slab group	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	L1.6 A0.4 F25.7
L	1.6 mm
A	0.4 mm
F	25.7 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

## **Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	None

## **Geometry - Tim Planning Suite**

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

### **System - Miscellaneous**

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

## **System - Adjustments**

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

## **System - Adjust Volume**

! Position	L1.0 P2.8 H21.1 mm
! Orientation	Sagittal
! Rotation	12.30 deg
! A >> P	185 mm
! F >> H	101 mm
! R >> L	129 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

## System - Tx/Rx

Frequency 1H	297.144452 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

## Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Echo spacing	0.99 ms
Bandwidth	1212 Hz/Px

### Sequence - Part 2

EPI factor	29
Segmentation	9

## Sequence - Part 2

RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	60

## Sequence - Special

PATRef FA	3 deg
RF duration	340 us
RF BWT product	8
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
ETL per RTEB	1
Invert PF	Off
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
SVDPC	On
Sym VASO	Off
Dual-pol. EPI	On
Invert RO	Off
Invert 3D	Off
Disable PF reco	Off
Save sampling	Off
PE VComp	Off
Water Exc.	Binomial-11
External PC	per Series
FIDNavs	•
EPI rise time factor	-none- 1.10
Mosaic DICOMs	0n
	On
Modify Ice Config	
G-factor map	Off
GRAPPA Regularization	50000 10^-6
HSN RF power scale	3.00
Inversion Delay	200 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	0

Mode	Off

## \\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\T123-EPI\_DANCLA\_230615\18sI\_20TRs\_GRAPPA3\_FA6\_33 \_forFAcomp

TA: 14:04 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : nih5k

#### **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	Off
Start measurements	Single measurement

#### Routine

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Slab Scale	-10 %
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	38.5 ms
TR 2	41763 ms
TE 1	16.50 ms
Averages	1
Filter	None
Coil elements	AC

#### **Contrast - Common**

TR 1	38.5 ms
TR 2	41763 ms
TE 1	16.50 ms
Multi-echo spacing	29.9 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1165 ms
TI 2	3475 ms
Flip angle	33 deg
Fat suppr.	None
Magn. Prep. Shots	9

#### **Contrast - Dynamic**

John Jynamio		
Averages	1	
Averaging mode	Short term	
Reconstruction	Magnitude	
Measurements	20	
Pause after meas. 1	0.0 s	
Pause after meas. 2	0.0 s	
Pause after meas. 3	0.0 s	
Pause after meas. 4	0.0 s	
Pause after meas. 5	0.0 s	
Pause after meas. 6	0.0 s	
Pause after meas. 7	0.0 s	
Pause after meas. 8	0.0 s	
Pause after meas. 9	0.0 s	
Pause after meas. 10	0.0 s	

### **Contrast - Dynamic**

Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

#### **Resolution - Common**

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
Base resolution	258
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	CAIPIRINHA
Acc. factor PE	1
Ref. lines PE	63
Acc. factor 3D	3
Ref. lines 3D	36
CAIPI 3D Shift	1
Reference Scan Mode	GRE/separate
CAIPI Mode (tooltip)	Skipped-CAIPI
Total PAT factor	3

### **Resolution - Filter Image**

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

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

Raw filter	Off
Elliptical filter	Off

### **Geometry - Common**

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	38.5 ms
TR 2	41763 ms

#### **Geometry - AutoAlign**

Slab group 1

Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	L1.6 A0.4 F25.7
L	1.6 mm
A F	0.4 mm
F	25.7 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

### **Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	None

## **Geometry - Tim Planning Suite**

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

### **System - Miscellaneous**

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

### **System - Adjustments**

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

### System - Adjust Volume

! Position	L1.0 P2.8 H21.1 mm
! Orientation	Sagittal
! Rotation	12.30 deg
! A >> P	185 mm
! F >> H	101 mm
! R >> L	129 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

#### System - Tx/Rx

-,	
Frequency 1H	297.144452 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

## Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Echo spacing	0.99 ms
Bandwidth	1212 Hz/Px

### Sequence - Part 2

EPI factor	29
Segmentation	9
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	60

### Sequence - Special

PATRef FA	3 deg
RF duration	340 us
RF BWT product	8
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
ETL per RTEB	1
CHECK FLIP ANGLE!	On
Invert PE	Off
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
SVDPC	On
Sym VASO	Off
Dual-pol. EPI	Off
Invert RO	Off
Invert 3D	Off
Disable PF reco	Off
Save sampling	Off
PE VComp	Off
Water Exc.	Binomial-11
External PC	per Series
FIDNavs	-none-
EPI rise time factor	1.10
Mosaic DICOMs	On
Modify Ice Config	On
G-factor map	Off
GRAPPA Regularization	50000 10^-6
HSN RF power scale	3.00
Inversion Delay	0 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	6

Mode	Off	
------	-----	--

## \\USER\FMRIF\[XT-ID:93-M-0170]|Renzo\T123-EPI\_DANCLA\_230615\18sI\_20TRs\_GRAPPA3\_FA0\_10 \_forFAcomp

TA: 14:04 PM: FIX Voxel size: 0.8×0.8×0.8 mmPAT: 3 Rel. SNR: 1.00 : nih5k

#### **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	Off
Start measurements	Single measurement

#### Routine

Slab group	1
Slabs	 1
0.0.0	•
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Slab Scale	-10 %
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	38.5 ms
TR 2	41763 ms
TE 1	16.50 ms
Averages	1
Filter	None
Coil elements	AC

#### **Contrast - Common**

TR 1	38.5 ms
TR 2	41763 ms
TE 1	16.50 ms
Multi-echo spacing	29.9 ms
Magn. preparation	Non-sel. HSN IR
TI 1	1165 ms
TI 2	3475 ms
Flip angle	10 deg
Fat suppr.	None
Magn. Prep. Shots	9

#### **Contrast - Dynamic**

John ade Dynamic	
Averages	1
Averaging mode	Short term
Reconstruction	Magnitude
Measurements	20
Pause after meas. 1	0.0 s
Pause after meas. 2	0.0 s
Pause after meas. 3	0.0 s
Pause after meas. 4	0.0 s
Pause after meas. 5	0.0 s
Pause after meas. 6	0.0 s
Pause after meas. 7	0.0 s
Pause after meas. 8	0.0 s
Pause after meas. 9	0.0 s
Pause after meas. 10	0.0 s

### **Contrast - Dynamic**

Pause after meas. 11	0.0 s
Pause after meas. 12	0.0 s
Pause after meas. 13	0.0 s
Pause after meas. 14	0.0 s
Pause after meas. 15	0.0 s
Pause after meas. 16	0.0 s
Pause after meas. 17	0.0 s
Pause after meas. 18	0.0 s
Pause after meas. 19	0.0 s

#### **Resolution - Common**

FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
Base resolution	258
Phase resolution	100 %
Slice resolution	100 %
Phase partial Fourier	Off
Slice partial Fourier	Off
Interpolation	Off

#### **Resolution - iPAT**

PAT mode	CAIPIRINHA
Acc. factor PE	1
Ref. lines PE	63
Acc. factor 3D	3
Ref. lines 3D	36
CAIPI 3D Shift	1
Reference Scan Mode	GRE/separate
CAIPI Mode (tooltip)	Skipped-CAIPI
Total PAT factor	3

## **Resolution - Filter Image**

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

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

Raw filter	Off
Elliptical filter	Off

### **Geometry - Common**

Slab group	1
Slabs	1
Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
Slab Scale	-10 %
Slices per slab	180
FoV read	210 mm
FoV phase	100.0 %
Slice thickness	0.81 mm
TR 1	38.5 ms
TR 2	41763 ms

#### **Geometry - AutoAlign**

Slab group 1

Position	L1.6 A0.4 F25.7 mm
Orientation	Sagittal
Phase enc. dir.	A >> P
AutoAlign	
Initial Position	L1.6 A0.4 F25.7
L	1.6 mm
A F	0.4 mm
F	25.7 mm
Initial Rotation	0.00 deg
Initial Orientation	Sagittal

### **Geometry - Saturation**

Saturation mode	Standard
Fat suppr.	None

# **Geometry - Tim Planning Suite**

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

## **System - Miscellaneous**

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

## **System - Adjustments**

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

## System - Adjust Volume

! Position	L1.0 P2.8 H21.1 mm
! Orientation	Sagittal
! Rotation	12.30 deg
! A >> P	185 mm
! F >> H	101 mm
! R >> L	129 mm
Reset	Off

## System - pTx Volumes

B1 Shim mode	TrueForm
Excitation	Slab-sel.

## System - Tx/Rx

Frequency 1H	297.144452 MHz
Correction factor	1
Gain	Low
Img. Scale Cor.	1.000
Reset	Off
! Ref. amplitude 1H	200.000 V

## Sequence - Part 1

Introduction	On
Dimension	3D
Reordering	Linear
Contrasts	1
Echo spacing	0.99 ms
Bandwidth	1212 Hz/Px

### Sequence - Part 2

EPI factor	29
Segmentation	9
RF pulse type	Normal
Gradient mode	Fast
Excitation	Slab-sel.
RF spoiling	On
Turbo factor	60

## Sequence - Special

PATRef FA	3 deg
RF duration	340 us
RF BWT product	8
Ernst T1	1200 ms
PATRef prep. shots	10
Volume dummy shots	0
Dummy Measurements	0
ETL per RTEB	1
Invert PE	Off
Echo Time Shift	On
Ramp Sampling	On
NORDIC	Off
SVDPC	On
Sym VASO	Off
Dual-pol. EPI	Off
Invert RO	Off
Invert 3D	Off
Disable PF reco	Off
Save sampling	Off
PE VComp	Off
Water Exc.	Binomial-11
External PC	per Series
FIDNavs	-none-
EPI rise time factor	1.10
Mosaic DICOMs	On
Modify Ice Config	On
G-factor map	Off
GRAPPA Regularization	50000 10^-6
HSN RF power scale	3.00
Inversion Delay	0 ms
Relaxation Delay	0 ms
Var. FA /MAGEC	0

Mode	Off