## SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

\\USER\UserProtocols\Renzo\JiaJia\columns check phdir

VASO binary version 109

used for ISMRM 2019

Properties	TA: 26:11 PAT: 2 Voxel size: 0.7×0.7×1.0 mm Rel. SNR: 1.00 USER: VASO_109				
Prio Recon   Def   Before measurement   After measurement   Aft	Dronovtico		PAT mode	GRAPPA	
Before measurement		0"	Accel. factor PE	2	
After measurement   Load to viewer   On   Fee   Fee		Оп	Ref. lines PE	24	
Load to viewer				1	
Inline movie		On		_	
Auto store images			Reference scan mode	Separate	
Load to stamp segments   Off   Raw filter   Off   Segments   Off			Prescan Normalize	Off	
Load images to graphic segments   Auto open inline display   Start measurement without further preparation   Wait for user to start   Start measurements   Single   Special sat.   Parallel F   Sapecial sat.   Parallel		_		_	
Segments		Off	Elliptical filter	Off	
Start measurement without without properation				Off	
Stat measurements willout   United for user to start   Off   Series   Ascending	Auto open inline display	Off	Coometry		
Series		On		Interlegyed	
Value   Valu					
Routine					
Thickness	Start measurements	single			
Slabs   1	Routine		•		
Dist. factor	Slab group 1		Thickness	100 mm	
Dist. factor	Slabs		Table position	Н	
Position					
Phase enc. dir.   R >> L   System				Off	
Rotation			System		
Phase oversampling   0.0 %   Silce oversam				Off	
Silice oversampling   0.0 %   Silice oversampling   0.0 %   Silice sper slab   12   MSMA   S. C T   Sagittal   R. > L   Coronal   A. > P   Transversal   F. > H   Save uncombined   Off   Coil Combine Mode   Sum of Squares   AutoAlign		•			
Silices per slab					
FoV read   32.7 mm   FoV phase   300.0 %					
FoV phase   300.0 %   3					
Slice thickness   0.99 mm   1702.40 ms   Transversal   F.≫ H     TR					
TR         1702.40 ms         Save uncombined Coil Combine Mode AutoAlign         Off           Averages         1         AutoAlign					
TE					
Averages					
Concatenations   Filter   None   Auto Coil Select   Default		1		Sum of Squares	
Filter		1	•	Default	
Adjust with body coil	7.7	None			
Perfusion mode	Coil elements	A32			
Perfusion mode	Contrast				
T12		Picore Q2TIPS			
Til					
Tils	TI1				
Filip angle	TI1s	50 ms		Auto	
Fat suppr.         Fat sat.         ! Orientation         Transversal           Fat sat. mode         Strong         ! Rotation         0.00 deg           Averaging mode         Long term         ! R >> L         89 mm           Reconstruction         Magnitude         ! A >> P         81 mm           Measurements         923         ! F >> H         58 mm           Delay in TR         0 ms         Physio         None           Multiple series         Off         1st Signal/Mode         None           Perfusion mode         PICORE Q2T         BOLD         Motion correction         Off           Inversion time 1         50 ms         BOLD         Motion correction         Off           Saturation stop time         50 ms         Spatial filter         Off           Inversion time 2         750.0 ms         Sequence           Flow limit         100.0 cm/s         Sequence           Resolution         46         Reordering         Linear           Phase resolution         100 %         Contrasts         1           Slice resolution         100 %         Bandwidth         1026 Hz/Px           Phase partial Fourier         6/8         Free echo spacing         Off	Flip angle	34 deg		R28 2 A11 1 H12 7	
Rotation   0.00 deg     Roveraging mode   Long term   1	Fat suppr.	Fat sat.		-	
Averaging mode	Fat sat. mode	Strong			
Reconstruction Magnitude	Averaging mode	Long term		•	
Measurements         923         ! F >> H         58 mm           Delay in TR         0 ms         Physio           Multiple series         Off         1st Signal/Mode         None           Perfusion mode         PICORE Q2T         BOLD           Inversion time 1         50 ms         Motion correction         Off           Saturation stop time         50 ms         Spatial filter         Off           Inversion time 2         750.0 ms         Sequence           Flow limit         100.0 cm/s         Sequence           Resolution         Introduction         On           Dimension         3D           Reordering         Linear           Contrasts         1           Slice resolution         100 %         Bandwidth         1026 Hz/Px           Phase partial Fourier         6/8         Free echo spacing         Off           Slice partial Fourier         Off         Echo spacing         1.1 ms			! A >> P	81 mm	
Delay in TR			! F >> H	58 mm	
Multiple series Off  Perfusion mode PICORE Q2T Inversion time 1 Saturation stop time Inversion time 2 Flow limit  Resolution  Base resolution Phase resolution Slice resolution Phase partial Fourier Slice partial Fourier Interpolation  Off  1st Signal/Mode None   Motion correction Spatial filter Off Spatial filter Off Spatial filter Off Sequence Introduction Dimension 3D Reordering Linear Contrasts 1 Bandwidth 1026 Hz/Px Free echo spacing Off Echo spacing 1.1 ms			Physio		
Perfusion mode PICORE Q2T BOLD   Inversion time 1 50 ms	_			None	
Inversion time 1 50 ms Saturation stop time 50 ms Inversion time 2 750.0 ms Flow limit 100.0 cm/s  Resolution  Base resolution 100 % Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off Interpolation Off Sequence  Introduction On Dimension 3D Reordering Linear Contrasts 1 Bandwidth 1026 Hz/Px Free echo spacing Off Echo spacing 1.1 ms	Porfusion mode	DICODE COT	1	. 10.10	
Saturation stop time 50 ms Spatial filter Off Inversion time 2 750.0 ms Flow limit 100.0 cm/s Sequence  Resolution On Dimension 3D Reordering Linear Phase resolution 100 % Contrasts 1 Slice resolution 100 % Bandwidth 1026 Hz/Px Phase partial Fourier 6/8 Free echo spacing Off Slice partial Fourier Off Echo spacing 1.1 ms Interpolation Off				0"	
Inversion time 2 750.0 ms Flow limit 100.0 cm/s  Resolution  Base resolution 46 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off Interpolation Off Sequence  Introduction On Dimension 3D Reordering Linear Contrasts 1 Bandwidth 1026 Hz/Px Free echo spacing Off Echo spacing 1.1 ms				_	
Flow limit 100.0 cm/s  Resolution  Base resolution 46 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off Interpolation Off  Sequence Introduction On Dimension 3D Reordering Linear Contrasts 1 Bandwidth 1026 Hz/Px Free echo spacing Off Echo spacing 1.1 ms	•		Spatial filter	Oπ	
Resolution  Base resolution  Phase resolution  Slice resolution  Phase partial Fourier  Slice partial Fourier  Introduction  On  Dimension  Reordering  Contrasts  Bandwidth  Bandwidth  Free echo spacing  Slice partial Fourier  Off  Echo spacing  1.1 ms			Sequence		
Base resolution 46 Phase resolution 100 % Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off Interpolation Off  SIMPLESTOR SD Reordering Linear Contrasts 1 Bandwidth 1026 Hz/Px Free echo spacing Off Echo spacing 1.1 ms	l -			On	
Phase resolution 100 %  Slice resolution 100 %  Phase partial Fourier 6/8  Slice partial Fourier Off  Interpolation Off  Contrasts 1  Bandwidth 1026 Hz/Px  Free echo spacing Off  Echo spacing 1.1 ms		40	Dimension	3D	
Slice resolution 100 % Phase partial Fourier 6/8 Slice partial Fourier Off Interpolation Off  Slice resolution 100 % Bandwidth 1026 Hz/Px Free echo spacing Off Echo spacing 1.1 ms			Reordering	Linear	
Phase partial Fourier 6/8 Free echo spacing Off Slice partial Fourier Off Echo spacing 1.1 ms Interpolation Off				-	
Slice partial Fourier Off Echo spacing 1.1 ms Interpolation Off					
Interpolation Off					
			Echo spacing	1.1 ms	
			EPI factor	138	

## SIEMENS MAGNETOM Investigational\_Device\_7T syngo MR B17

Gradient mode Normal Excitation Slab-sel. RF spoiling On	
Ampl       110         BWDTH       150 3.1kHz         thickness       30         use Ernst angle       Off         Maxwell Correction       Off         log physio files       Off         FFT scale       1.00         dummy prepscan time       3 s         z shim       0.00 mT/m*ms         RF duration       1456 us         RF BWTP       25.0         EFFECTIVE TR       20428 ms         PatPartitions       12         EPI phase correction       local         PAT refscan mode       Flash         FlashRef BaseRes       46         FlashRef BW       107 Hz/px         FlashRef TE       7000 us         FlashRef FA       5 deg         use CAIPI       Off	

## Additional Parameters:

- -> GRAPPA Kernel 2x3
- -> GRAPPA Regularization (NoisereductionI=5000)
  -> Partial Fourier Algorithm = POCS
- -> POCS iterations = 8