\\US	ER\UserP	rotocols\Renzo\V1_template	2\22_slices_isotro	pic_TR5s
TA: 7.6 s	PAT: 3	Voxel size: 0.8×0.8×0.8 mm	Rel. SNR: 1.00	UNKNOWN:

Properties		PAT mode Accel, factor PE	GRAPPA 3
Prio Recon	Off	Ref. lines PE	45
Before measurement		Accel. factor 3D	1
After measurement		Ref. lines 3D	24
Load to viewer	On Off	Reference scan mode	Separate
Inline movie	Off	Dunana Manusalina	04
Auto store images	On Off	Prescan Normalize	Off Off
Load to stamp segments	Off	Raw filter	Off
Load images to graphic segments	Oli	Elliptical filter	Off Off
Auto open inline display	Off	Hamming	Oli
Start measurement without	On	Geometry	
further preparation	Oli	Multi-slice mode	Interleaved
Wait for user to start	Off	Series	Ascending
Start measurements	single	Coosist ast	Devellal C
Start measurements	Sirigie	Special sat.	Parallel F
Routine Slab group 1		Gap Thickness	25.0 mm 100 mm
Slabs	1	Table position	11
Dist. factor	50 %	Table position	H 0 mm
Position	R6.8 P9.4 H36.8	Table position	0 mm Off
Orientation	T > C-31.2	Inline Composing	Oli
Phase enc. dir.	A >> P	System	
Rotation	-0.00 deg	V32	Off
Phase oversampling	-0.00 deg 24 %	A32	On
Slice oversampling	9.1 %		
Slice oversampling Slices per slab	22	Positioning mode	FIX
FoV read	130.0 mm	MSMA	S - C - T
FoV phase	100.0 %	Sagittal	R >> L
Slice thickness	0.80 mm	Coronal	A >> P
TR	2549.80 ms	Transversal	F >> H
TE	25 ms	Save uncombined	Off
Averages	1	Coil Combine Mode	Sum of Squares
Concatenations	1	AutoAlign	
Filter	None	Auto Coil Select	Default
	INOTIC		
	Δ32	Shim mode	Standard
Coil elements	A32	Shim mode Adjust with body coil	Standard Off
		Adjust with body coil	Off
Coil elements  Contrast  Perfusion mode	SS-SI VASO	Adjust with body coil Confirm freq. adjustment	Off Off
Coil elements  Contrast  Perfusion mode TI2	SS-SI VASO 700 ms	Adjust with body coil Confirm freq. adjustment Assume Silicone	Off Off Off
Coil elements  Contrast  Perfusion mode TI2 TI1	SS-SI VASO 700 ms 50 ms	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H	Off Off Off 220.000 V
Coil elements  Contrast  Perfusion mode  TI2  TI1  TI1s	SS-SI VASO 700 ms 50 ms 50 ms	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance	Off Off Off
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle	SS-SI VASO 700 ms 50 ms 50 ms 4 deg	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume	Off Off Off 220.000 V Auto
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr.	SS-SI VASO 700 ms 50 ms 50 ms	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position	Off Off Off 220.000 V Auto
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle	SS-SI VASO 700 ms 50 ms 50 ms 4 deg	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume	Off Off Off 220.000 V Auto  Isocenter Transversal
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation	Off Off Off 220.000 V Auto
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation	Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P	Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P ! R >> L ! F >> H	Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P ! R >> L ! F >> H  Physio	Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P ! R >> L ! F >> H	Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series  Perfusion mode	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P ! R >> L ! F >> H  Physio	Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms Off	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P ! R >> L ! F >> H  Physio  1st Signal/Mode  BOLD	Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series  Perfusion mode	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms Off	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P ! R >> L ! F >> H  Physio  1st Signal/Mode  BOLD  Motion correction	Off Off Off Off 220.000 V Auto Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm  None
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series  Perfusion mode Inversion time 1	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms Off  PICORE Q2T 50 ms	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P ! R >> L ! F >> H  Physio  1st Signal/Mode  BOLD  Motion correction Spatial filter	Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series  Perfusion mode Inversion time 1 Saturation stop time	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms Off  PICORE Q2T 50 ms 50 ms	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P ! R >> L ! F >> H  Physio 1st Signal/Mode  BOLD  Motion correction Spatial filter  Sequence	Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm  None  Off Off
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series  Perfusion mode Inversion time 1 Saturation stop time Inversion time 2 Flow limit	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms Off  PICORE Q2T 50 ms 50 ms 700.0 ms	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P ! R >> L ! F >> H  Physio 1st Signal/Mode  BOLD  Motion correction Spatial filter  Sequence Introduction	Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm  None  Off Off
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series  Perfusion mode Inversion time 1 Saturation stop time Inversion time 2 Flow limit  Resolution	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms Off  PICORE Q2T 50 ms 50 ms 700.0 ms 100 cm/s	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P ! R >> L ! F >> H  Physio 1st Signal/Mode  BOLD  Motion correction Spatial filter  Sequence Introduction Dimension	Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm  None  Off Off Off
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series  Perfusion mode Inversion time 1 Saturation stop time Inversion time 2 Flow limit  Resolution  Base resolution	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms Off  PICORE Q2T 50 ms 50 ms 700.0 ms 100 cm/s	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P ! R >> L ! F >> H  Physio  1st Signal/Mode  BOLD  Motion correction Spatial filter  Sequence Introduction Dimension Reordering	Off Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm  None  Off Off Off Off
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series  Perfusion mode Inversion time 1 Saturation stop time Inversion time 2 Flow limit  Resolution  Base resolution Phase resolution	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms Off  PICORE Q2T 50 ms 50 ms 700.0 ms 100 cm/s	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! A >> P ! R >> L ! F >> H  Physio  1st Signal/Mode  BOLD  Motion correction Spatial filter  Sequence  Introduction Dimension Reordering Contrasts	Off Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm  None  Off Off Off Off  On 3D Linear 1
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series  Perfusion mode Inversion time 1 Saturation stop time Inversion time 2 Flow limit  Resolution  Base resolution Slice resolution	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms Off  PICORE Q2T 50 ms 50 ms 700.0 ms 100 cm/s	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! Rotation ! A >> P ! R >> L ! F >> H  Physio  1st Signal/Mode  BOLD  Motion correction Spatial filter  Sequence Introduction Dimension Reordering Contrasts Bandwidth	Off Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm  None  Off Off Off Off Off Off Off On 3D Linear 1 1028 Hz/Px
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series  Perfusion mode Inversion time 1 Saturation stop time Inversion time 2 Flow limit  Resolution Base resolution Phase partial Fourier	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms Off  PICORE Q2T 50 ms 50 ms 700.0 ms 100 cm/s	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! Rotation ! A >> P ! R >> L ! F >> H  Physio  1st Signal/Mode  BOLD  Motion correction Spatial filter  Sequence Introduction Dimension Reordering Contrasts Bandwidth Free echo spacing	Off Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm  None  Off Off Off Off Off Off Off Off Off O
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series  Perfusion mode Inversion time 1 Saturation stop time Inversion time 2 Flow limit  Resolution Base resolution Phase resolution Slice resolution Phase partial Fourier Slice partial Fourier	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms Off  PICORE Q2T 50 ms 50 ms 700.0 ms 100 cm/s	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! Rotation ! A >> P ! R >> L ! F >> H  Physio  1st Signal/Mode  BOLD  Motion correction Spatial filter  Sequence Introduction Dimension Reordering Contrasts Bandwidth	Off Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm  None  Off Off Off Off Off Off Off On 3D Linear 1 1028 Hz/Px
Coil elements  Contrast  Perfusion mode TI2 TI1 TI1s Flip angle Fat suppr. Fat sat. mode  Averaging mode Reconstruction Measurements Delay in TR Multiple series  Perfusion mode Inversion time 1 Saturation stop time Inversion time 2 Flow limit  Resolution Base resolution Phase partial Fourier	SS-SI VASO 700 ms 50 ms 50 ms 4 deg Fat sat. Strong  Long term Magnitude 3 0 ms Off  PICORE Q2T 50 ms 50 ms 700.0 ms 100 cm/s	Adjust with body coil Confirm freq. adjustment Assume Silicone ! Ref. amplitude 1H Adjustment Tolerance Adjust volume ! Position ! Orientation ! Rotation ! Rotation ! A >> P ! R >> L ! F >> H  Physio  1st Signal/Mode  BOLD  Motion correction Spatial filter  Sequence Introduction Dimension Reordering Contrasts Bandwidth Free echo spacing	Off Off Off Off Off 220.000 V Auto  Isocenter Transversal 90.00 deg 178 mm 133 mm 22 mm  None  Off Off Off Off Off Off Off Off Off O

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

Ampl 150 BWDTH 125 3.1kHz ph.skip 4 Robert (the one) 1 use Ernst angle Off Maxwell Correction Off log physio files Off FFT scale 3.00 dummy prepscan time 3 s z shim 0.00 mT/m*ms RF duration 2000 us RF BWTP 25.0 Renzo: Delta TI 74 ms EFFECTIVE TR 60192 ms PatPartitions 24	RF pulse type Gradient mode Excitation RF spoiling	Normal Fast Slab-sel. On	
EPI phase correction local PAT refscan mode Flash FlashRef BaseRes 162 FlashRef BW 100 Hz/px FlashRef TE 8000 us FlashRef FA 5 deg use CAIPI Off	BWDTH ph.skip 4 Robert (the one) use Ernst angle Maxwell Correction log physio files FFT scale dummy prepscan time z shim RF duration RF BWTP Renzo: Delta TI EFFECTIVE TR PatPartitions EPI phase correction PAT refscan mode FlashRef BaseRes FlashRef BW FlashRef TE FlashRef FA	125 3.1kHz 1 Off Off Off Off 3.00 3 s 0.00 mT/m*ms 2000 us 25.0 74 ms 60192 ms 24 local Flash 162 100 Hz/px 8000 us 5 deg	