



# **A**utomatic **M**edical **I**mages **G**enerat**O**r V0.11

## manm191119\_perf report: 2024.05.23

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**SITE** : Grenoble University Hospital - CLUNI  
**MRI SCANNER** : Philips Achieva 3.0T TX  
**STUDY NAME** : cevastoc32  
**EXAMINATION DATE** : 2019.11.19 / 14:27:10  
**PATIENT REFERENCE** : manm191119\_perf  
**PATIENT SEX** : ?  
**PATIENT AGE** : ?  
**PATHOLOGY** : ?  
**REFERENCE GROUP** : CVR\_temoins\_IL  
**SOFTWARES** : Python 3.9.9  
MATLAB Vers. 9.9 (R2020b)  
Statistical Parametric Mapping Vers. 7771 (SPM12)  
Image Processing Toolbox Vers. 11.2 (R2020b)  
Operating System Linux 5.14.18-100.fc33.x86\_64

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### **DISCLAIMER**

AMIGO software is executed in a research environment on anonymized data. The conclusions obtained with AMIGO software by IRMaGe are an help to diagnose and prognosticate. They do not substitute themselves to the clinical care of the physicians and remain under their responsibilities. Consequently, IRMaGe is not responsible for any direct or indirect damages resulting from the use of data, informations, or results stemming from the AMIGO software. The user recognizes to use these informations under his sole and exclusive responsibility.

### **DECHARGE DE RESPONSABILITE**

Le logiciel AMIGO est exécuté dans un environnement de recherche sur des données anonymisées. Les conclusions obtenues grâce au logiciel AMIGO d'IRMaGe sont une aide au diagnostic et au pronostic. Elles ne se substituent pas à la prise en charge médicale des médecins et demeurent sous leurs responsabilités. Par conséquent, IRMaGe ne peut être tenu responsable de dommage direct ou indirect résultant de l'utilisation des données, des informations ou des résultats issus du logiciel AMIGO. L'utilisateur reconnaît utiliser ces informations sous sa seule et entière responsabilité.

# Anatomical MRI

## Acquisition parameters:

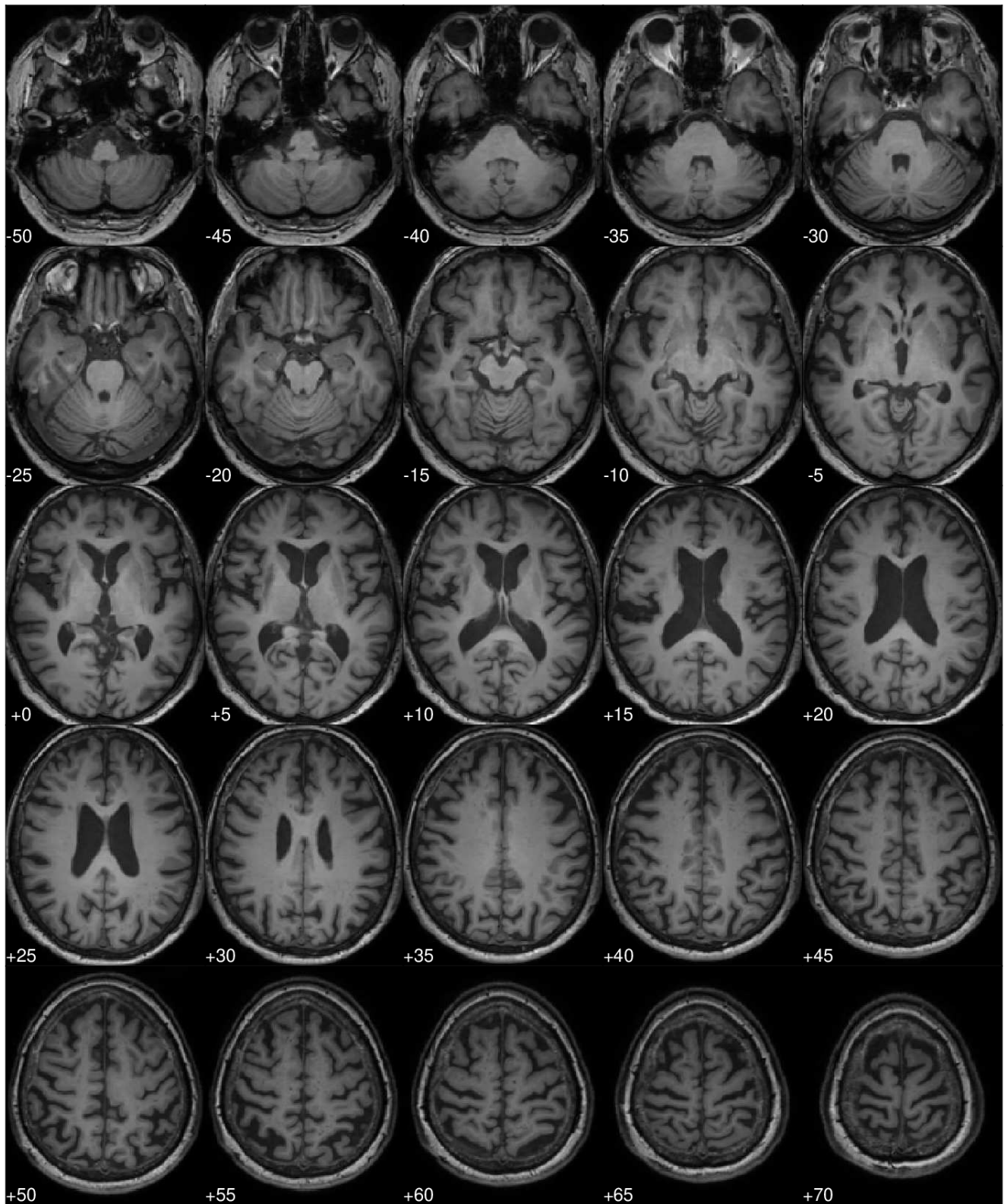
- **Protocol name / Acquisition nr:** CS\_T1 3D EG / 2
- **Acquisition mode**
  - **Technique:** T1TFE
- **Geometry parameters**
  - **Number of slices:** 160
  - **Slice thickness / Slice gap [mm]:** 1.0 / 0.0
  - **FOV (ap / fh / rl) [mm]:** 256.0 / 256.0 / 160.0
  - **Scan resolution (x / y):** 256 / 256
  - **Voxel size (x / z / y) [mm]:** 0.5 / 0.5 / 1.0
- **Temporal parameters**
  - **TR [ms] / TE [ms] / Image flip angle [deg]:** 9.9 / 4.6 / 8.0
  - **Number of dynamics:** 1
  - **Acquisition duration [s]:** 241

## Post-processing:

- **Spatial processing**
  - **Spatial normalization:** Y
  - **Brain template:** MNI
  - **Voxel size [mm]:** 1 x 1 x 1
  - **Segmentation:** Grey matter, white matter, cerebrospinal fluid, bone, soft tissues

## Anatomy: MNI normalized axial images

*"Radiological" convention, the left side of the image corresponds to the right side of the brain.*



# Dynamic Susceptibility Contrast Perfusion MRI

## Acquisition parameters:

- **Protocol name / Acquisition nr:** PERFUSION / 8
- **Acquisition mode**
  - **Technique:** FEEPI
- **Geometry parameters**
  - **Number of slices:** 25
  - **Slice thickness / Slice gap [mm]:** 4.0 / 0.0
  - **FOV (ap / fh / rl) [mm]:** 224.0 / 100.0 / 184.0
  - **Scan resolution (x / y):** 112 / 112
  - **Voxel size (x / z / y) [mm]:** 2.0 / 4.0 / 2.0
- **Temporal parameters**
  - **TR [ms] / TE [ms] / Image flip angle [deg]:** 1561.7 / 40.0 / 75.0
  - **Number of dynamics:** 80
  - **Acquisition duration [s]:** 131

## Post-processing:

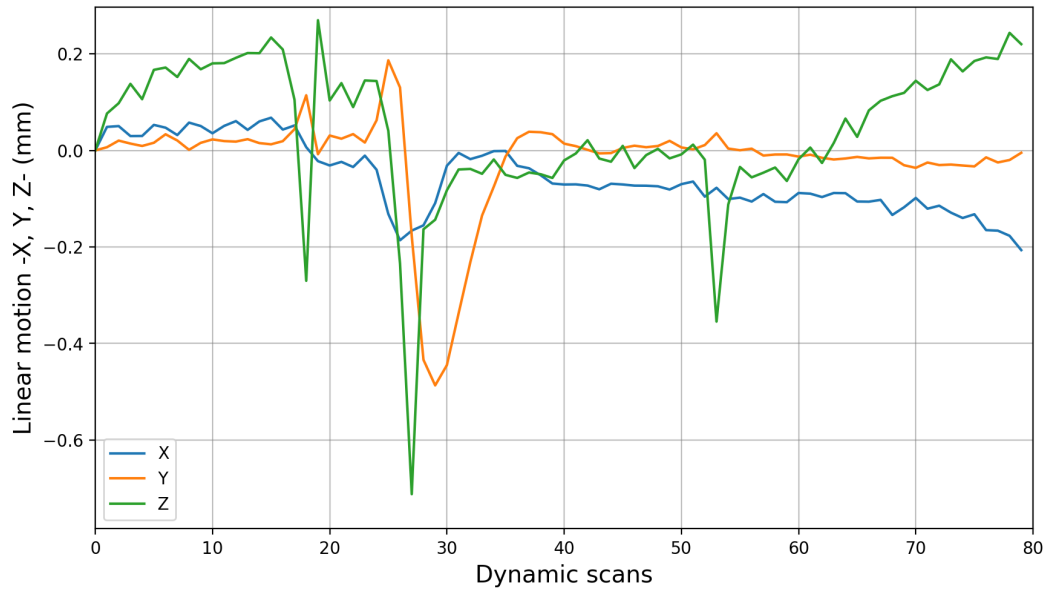
- **Spatial processing**
  - **Spatial normalization:** Y
  - **Brain template:** MNI
  - **Voxel size [mm]:** 2 x 2 x 2
  - **Spatial smoothing (fwhm) [mm]:** 6 x 6 x 6
- **Analysis**
  - **Technique:** deconvolution of the AIF
  - **CBV normalization [mL/100g]:** 5



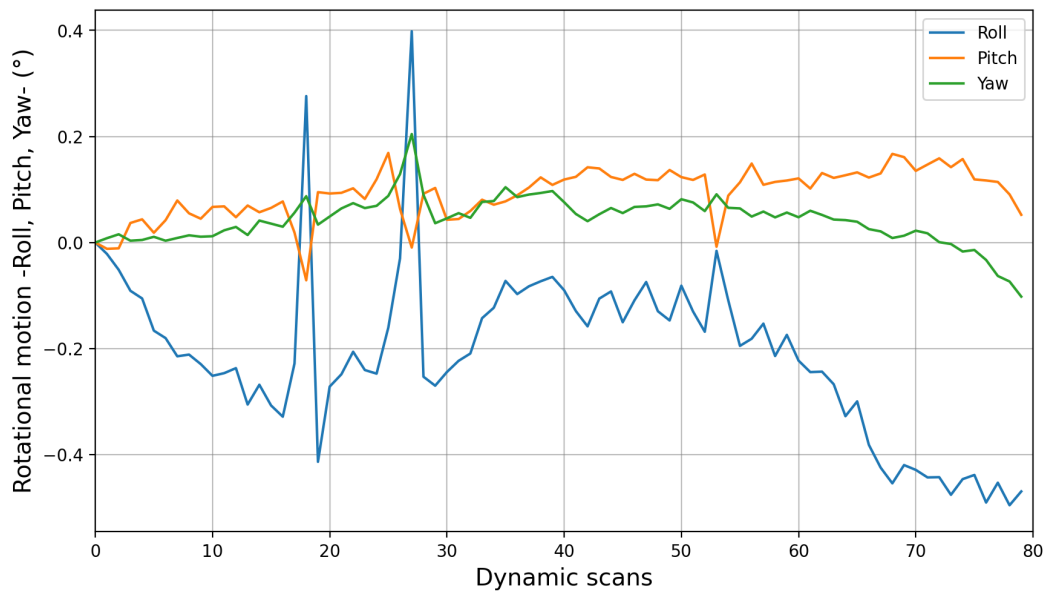
# DSC perfusion quality check: movements



### Linear head motion parameters

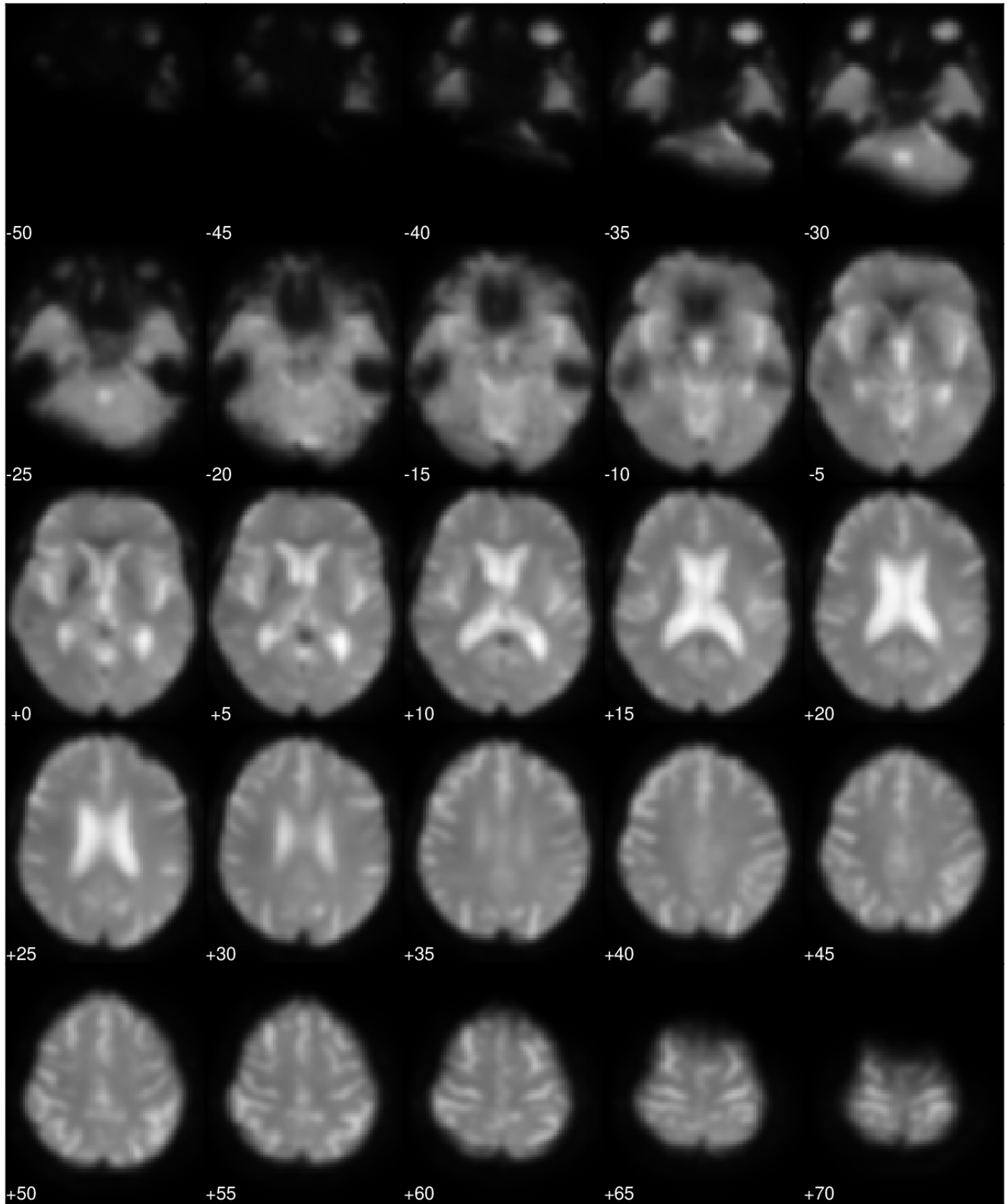


### Rotational head motion parameters



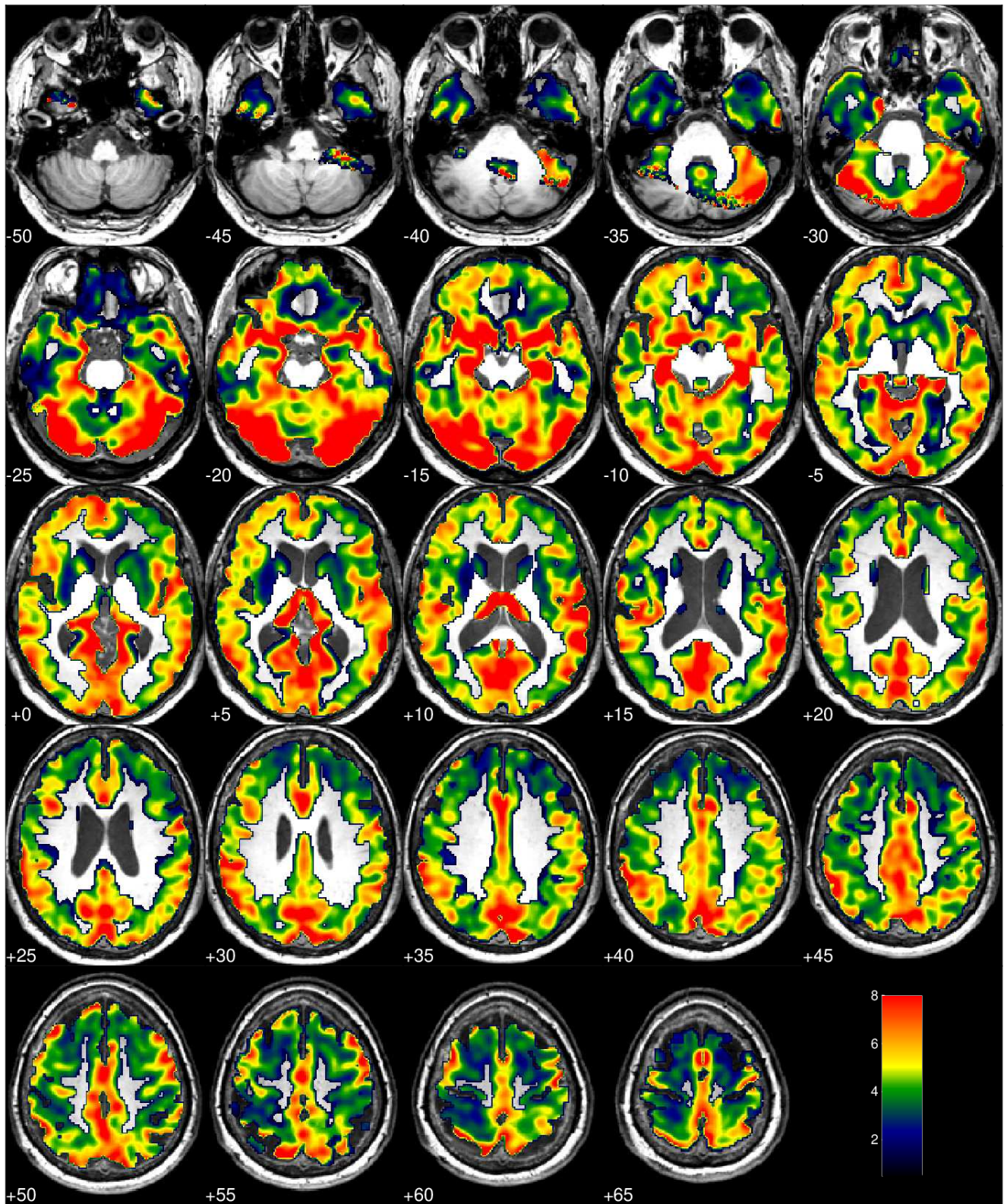
## DSC perfusion: MNI normalized axial images (1<sup>st</sup> dynamic)

*"Radiological" convention, the left side of the image corresponds to the right side of the brain.*



## Parametric maps: Cerebral Blood Volume in A. U.

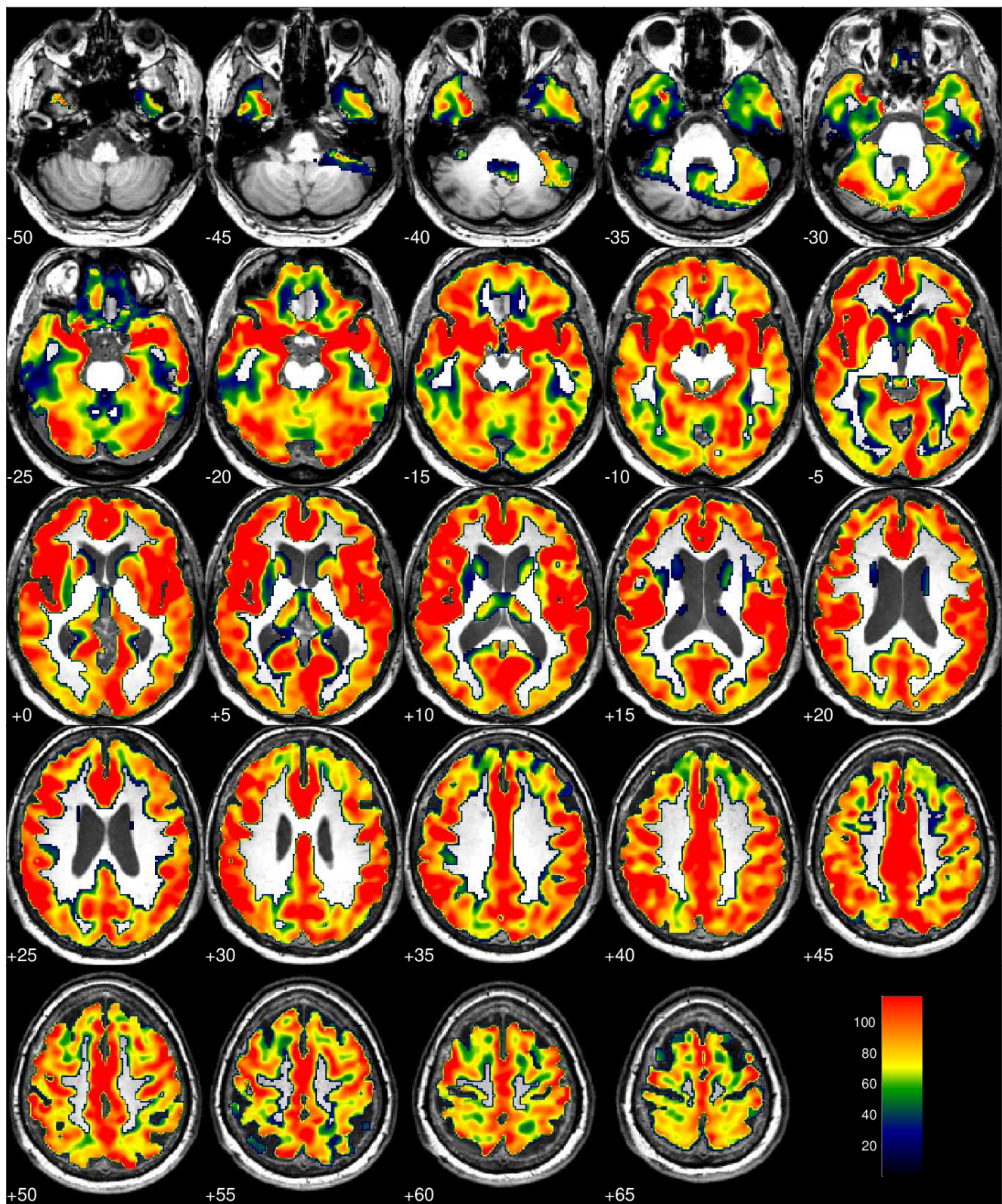
*"Radiological" convention, the left side of the image corresponds to the right side of the brain.*





## Parametric maps: Cerebral Blood Flow in A. U.

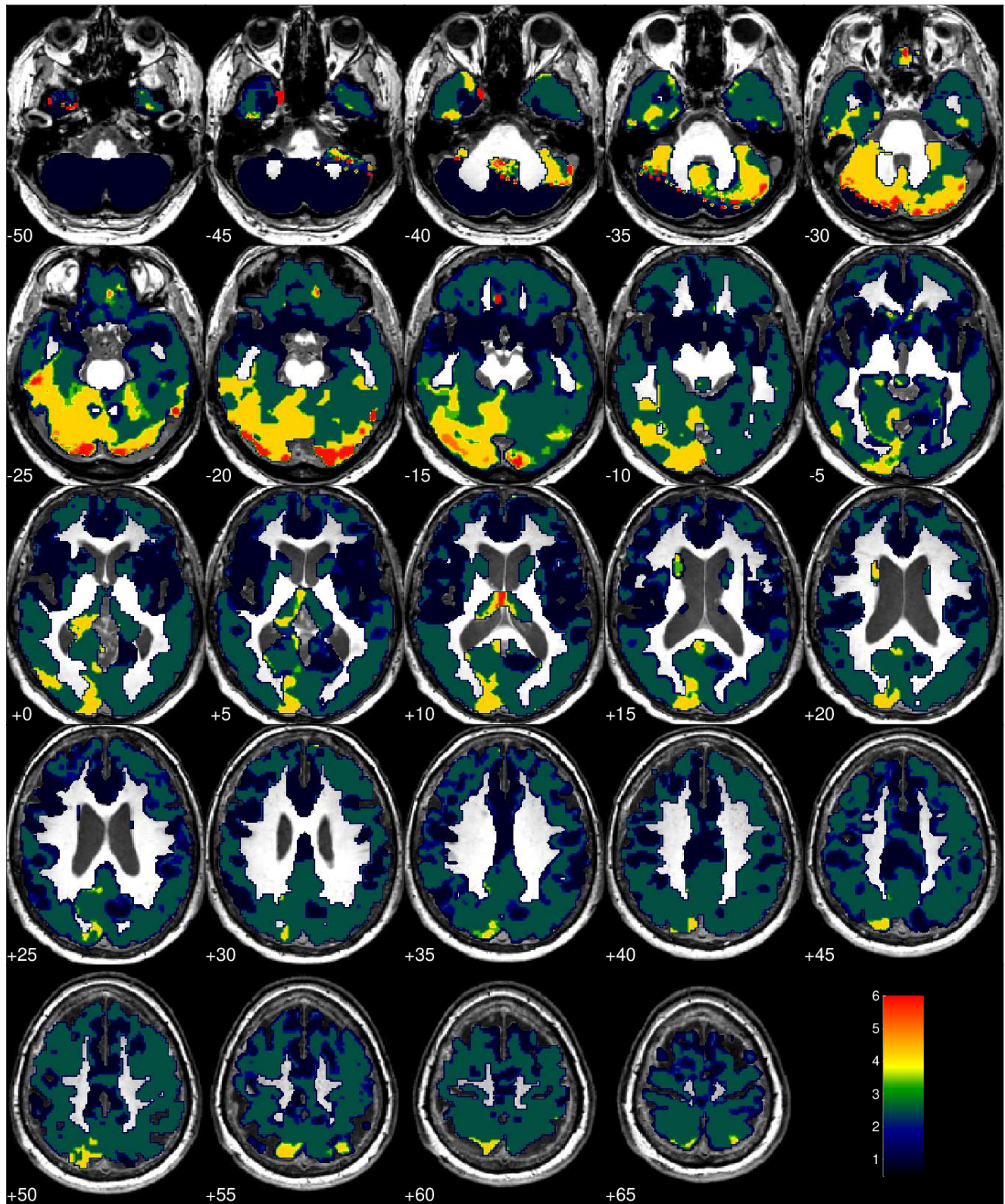
*"Radiological" convention, the left side of the image corresponds to the right side of the brain.*





## Parametric maps: Delay in sec.

*"Radiological" convention, the left side of the image corresponds to the right side of the brain.*





## Parametric maps: Mean Transit Time in sec.

*"Radiological" convention, the left side of the image corresponds to the right side of the brain.*

