## Fitting T2 Data with fitEPGazz.py

The python program has been designed/developed to work within a study data directory structure or with single files. The program can fit a number of different models to the data and works with a fitModelData yaml file for input.

Example fitModelData yaml files can be found in the following directories

mristudydescription/  
│  
└── examples/  
 │  
 │  
    ├── fitSingleModelDataYAMLfiles/  
 │ │  
    │   ├── fitSingleDataMuscleEPG1nifti.yml  
    │   ├── fitSingleDataMuscleAzzabouNifti.yml  
    │   ├── fitSingleDataFatEPG2nifti.yml  
    │   ├── fitSingleDataEPGAzzAnalyzeOutline.yml  
    │   └── fitSingleDataEPGAzzAnalyzeIndividual.yml  
 │  
    └── fitStudyModelDataYAMLfiles/  
 │  
       ├── fitStudyDataEPGAzzAnalyze.yml  
       ├── fitStudyDataEPGAzzAnalyze.yml  
       ├── fitStudyDataFatEPG2analyze.yml  
       ├── fitStudyDataMuscleEPG1analyze.yml  
       └── fitStudyDataMuscleEPG1nifti.yml

The files in the ***fitSingleModelDataYAMLfiles*** directory correspond to fitModelData example yaml files that work on single specified datasets.

The files in the ***fitStudyModelDataYAMLfiles*** directory correspond to fitModelData example yaml files that work on data in a study data directory structure. In this case, example study data directory structures that work with the yaml files are found in

mristudydescription/  
│  
└── examples/  
 │  
    └── studyDirectoyExamples  
 │  
    ├── testStudyAnalyze  
    ├── testStudyNiftDIR  
    └── testStudyNiftiFile

### Fitting T2 Data with fitEPGazz.py on named single data files

To use the program in this manner one would type the following on the command line after moving to the directory where the fitEPGazz.py is located.

-> python fitEPGazz.py examples\fitSingleModelDataYAMLfiles\fitSingleDataFatEPG2nifti.yml

or just the program name on its own and enter the yaml file using the interactive dialog that pops up.

-> python fitEPGazz.py

### Fitting T2 Data with fitEPGazz.py in study directory structures

The program can fit data from within a study structure directory. This can be achieved by calling the program from the command line without arguments and interactive dialogs will pop up to ask for the yaml file and then the study directory name.

-> python fitEPGazz.py

The fitModelData yaml file can be supplied on the command line. If the ***fitSubject*** parameter list is not empty then an interactive dialog will pop up asking for the path of the study structure directory.

-> python fitEPGazz.py examples\fitStudyModelDataYAMLfiles\fitStudyDataAzzabouAnalyze.yml

Finally, the program can be called with two command line arguments specifying the yaml fitModelData file and the study directory structure path.

-> python fitEPGazz.py examples\fitStudyModelDataYAMLfiles\fitStudyDataAzzabouAnalyze.yml   
 examples\studyDirectoyExamples\testStudyAnalyze