# To run power\_per\_Resting.m

#### **Table of Contents**

redit and date	1
ıtro	1
epo location	
ependencies:	
asic usage	
xample 1	
how PMU data if available	
how filtered data	

#### **Credit and date**

Code developed by Oscar Miranda-Dominguez.

First line of documentation: July 2018

#### Intro

This is a companion figure to cat\_mov\_reg\_power. It shows the power spectra from each movement regressor

## **Repo location**

https://gitlab.com/Fair\_lab/movement\_regressors\_power\_plots

## **Dependencies:**

Dependancies have been included in this version. Extra functions are found within this repo's folder named 'utilities'

#### Basic usage

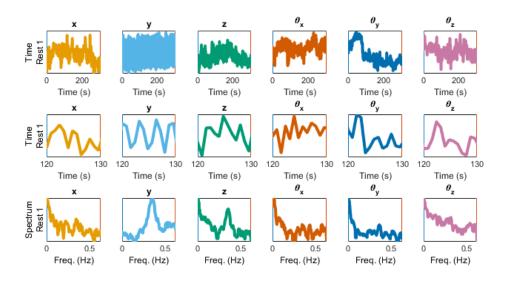
The two mandatory input arguments for this function are:

- 1. the path to the Movement Regressors files made by the pipelin. in this casi it is only the path to a single file (not a cell with paths to multiple Movement Regressors files as in cat\_mov\_reg\_power
- 2. TR, BOLD's repetition time

# **Example 1**

```
% cd /mnt/max/shared/code/internal/utilities/mov_reg_power % move to
  the folder to save the data
f=filesep;
TR=0.8;% TR in seconds
```

```
ver=1;
% Path to Movement regressors file
dest_path='P:\code\internal\utilities\OSCAR_WIP
\movement_regressors_power_plots\mov_reg_files\subject_with_PMU_data';
path_mov_reg=[dest_path f 'random_ix_1_ver'
   num2str(ver) '_Movement_Regressors.txt'];
```

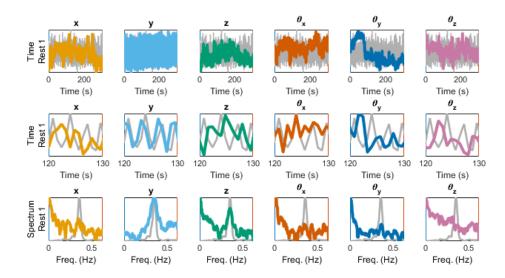


## Show PMU data if available

Make the same figure and show PMU data if available

CLIM=power\_per\_Resting(path\_mov\_reg,TR);

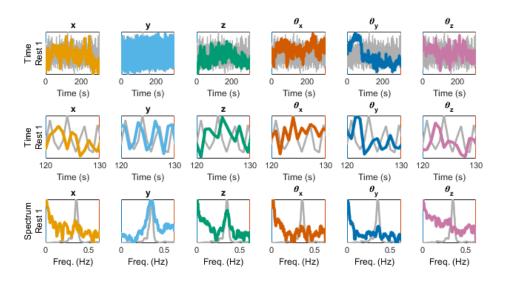
PMU\_path=[dest\_path f 'random\_ix\_1\_PMUextracted.mat'];
CLIM=power\_per\_Resting(path\_mov\_reg,TR,'PMU\_path',PMU\_path);

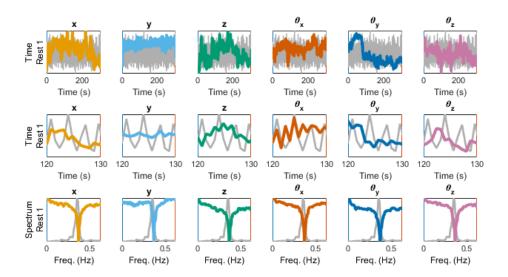


## **Show filtered data**

#### Original data

```
CLIM=power_per_Resting(path_mov_reg,TR,'PMU_path',PMU_path);
ver=2;
path_mov_reg=[dest_path f 'random_ix_1_ver'
   num2str(ver) '_Movement_Regressors.txt']
% Filtered data
CLIM=power_per_Resting(path_mov_reg,TR,'PMU_path',PMU_path,'clim',CLIM);
path_mov_reg =
   'P:\code\internal\utilities\OSCAR_WIP
\movement_regressors_power_plots\mov_reg_files\subject_with_PMU_data
\random_ix_1_ver2_Movement_Regressors.txt'
```





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