



# Hands-On Data Analysis

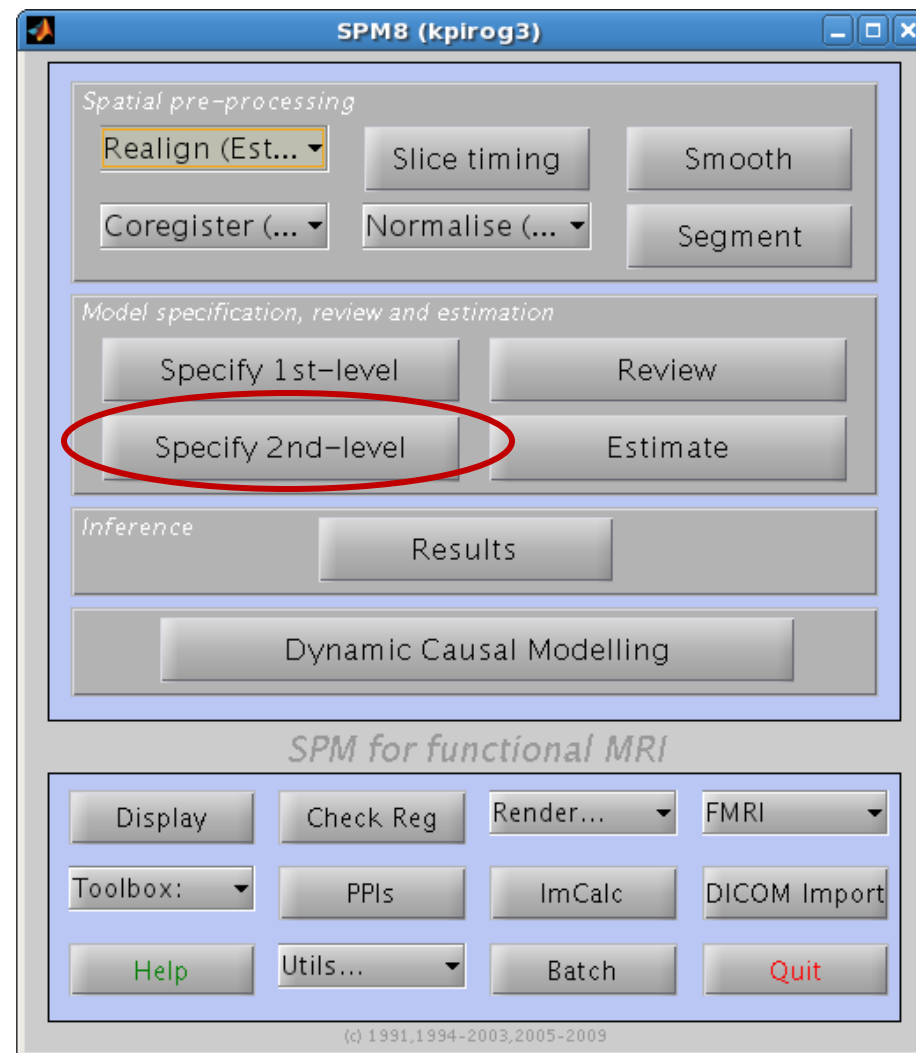


- Data from safety training
  - 9 subjects
  - Finger-tapping task (12s tapping, 12s rest)
  - 188 scans acquired over 6:16 (TR = 2)
  - Hi-res structural image
- Group analysis in SPM8



# SPM: Group Analysis

- Navigate to /home/public/spm/group and make your own group directory (i.e. mkdir kategroup)
- Launch MATLAB and spm8.
- Choose Specify 2<sup>nd</sup>-Level

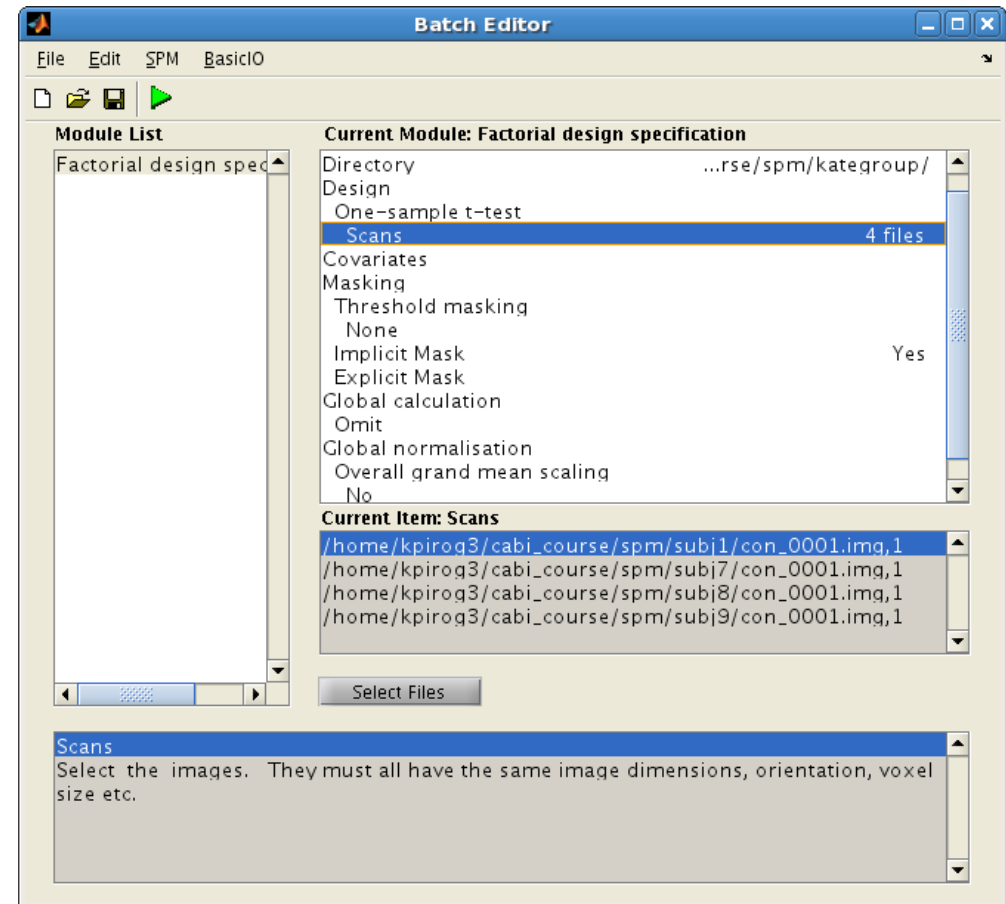




# SPM: Group Analysis

## ● 2<sup>nd</sup>-Level

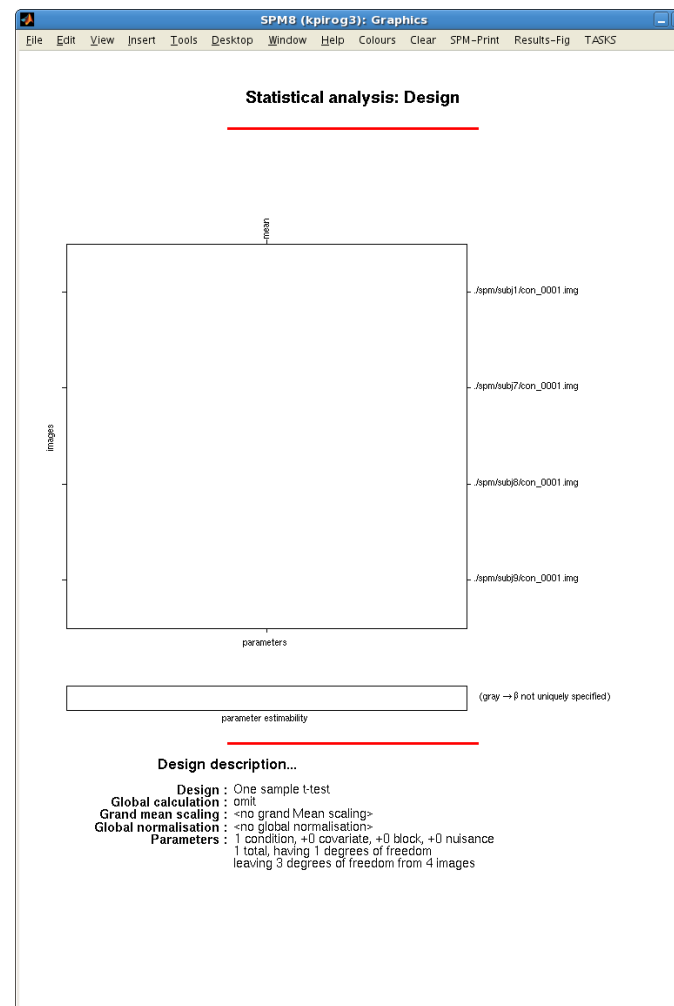
- Choose a results directory (the one you just made)
- Scans: each subject's contrast image is in the group directory: choose con\_0001.img through con\_0009.img
- Save as groupdesign.mat
- Run (~2 min)



- 2<sup>nd</sup>-Level

- View design

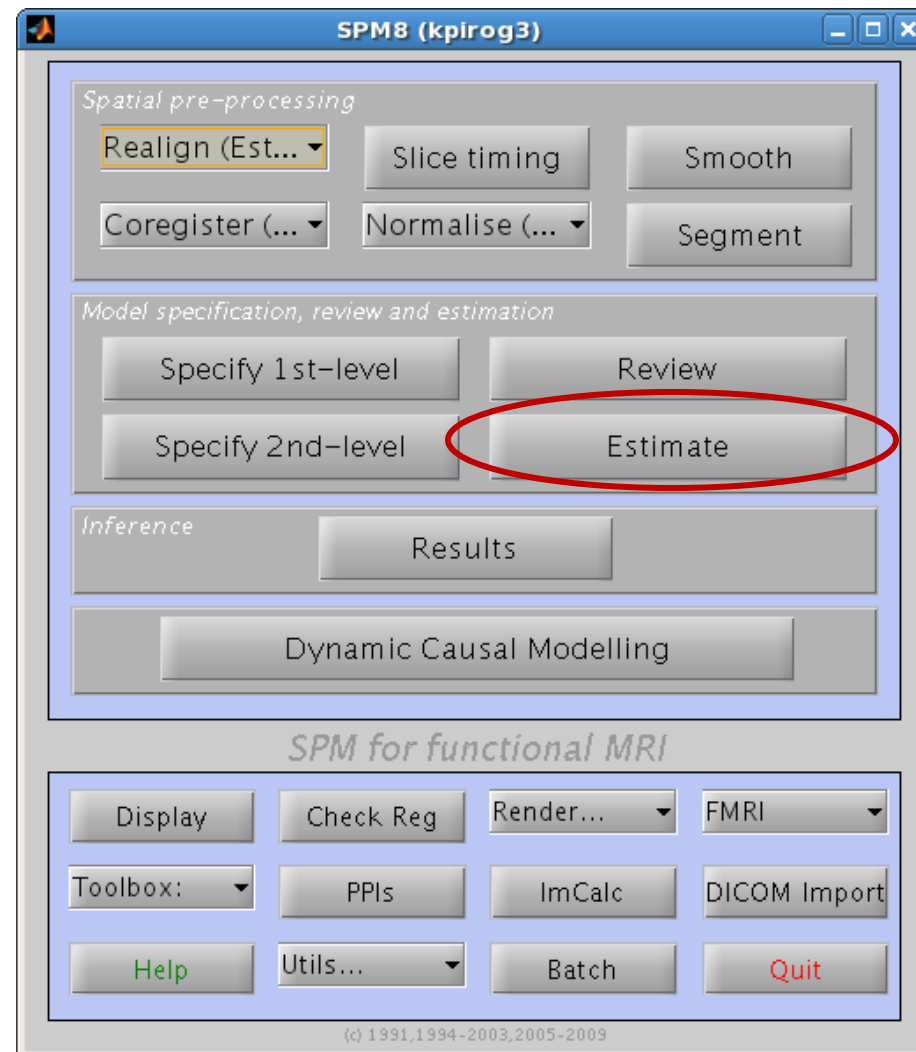
- White box (same information for each subject)





# SPM: Group Analysis

- Estimate
  - Choose SPM.mat from your group directory
  - Run (~ 2 min)



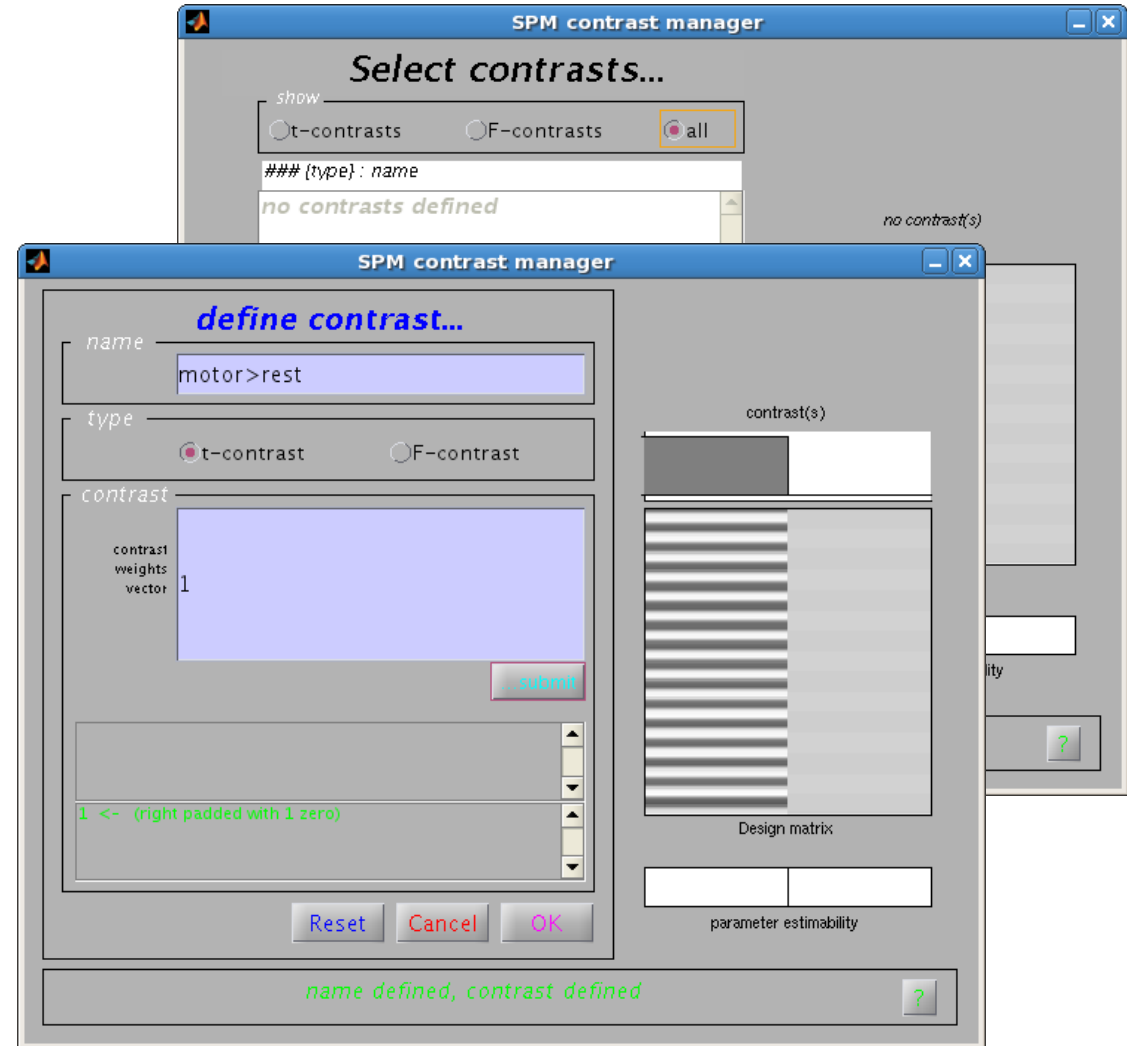


# SPM: Group Analysis



## ● Results

- Choose SPM.mat from your group directory
- Define new contrast
  - Name: group\_m>r
  - T-contrast
  - Contrast: 1
  - Hit submit, OK, done



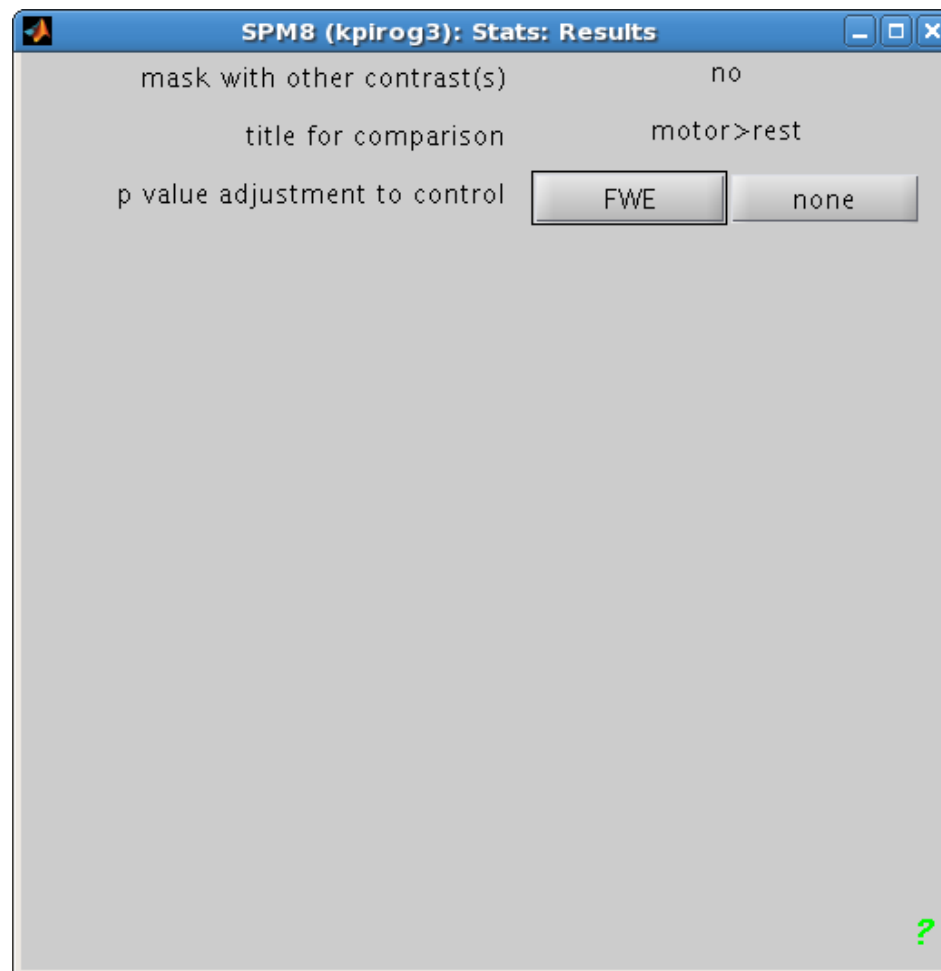


# SPM: Group Analysis



## ● Results

- Mask with other contrasts: no
- Title: motor>rest
- P value adjustment: FWE
- P value: 0.05
- Extent threshold: 0
- Will run for < 1 min...





# SPM: Group Analysis



- Results
  - What do we get?