

# Pretty pictures for paper

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*2/19/2021*

## R Markdown

This is the image deck for Erica Baller's IMCO Project. We will start with looking at the coupling data, and masked by Yeo, aerobic glycolysis maps

On PMACS:/project/imco/baller/scripts/PBP\_graphics

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```
## Yeo7 (PBP_vertWiseEffect_Erica_Ts_Yeo7_colors_results_outpath.m)
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```
[x] coupling gam age, fdr05
```

```
command: PBP_vertWiseEffect_Erica_Ts_Yeo7_colors_results_outpath('//project/imco/baller/results/coupling_accuracy.m',
```

```
[x] coupling lm age, fdr05
```

```
command: PBP_vertWiseEffect_Erica_Ts_Yeo7_colors_results_outpath('//project/imco/baller/results/coupling_accuracy.m',
```

```
[x] coupling lm sex, fdr05
```

```
command: PBP_vertWiseEffect_Erica_Ts_Yeo7_colors_results_outpath('//project/imco/baller/results/coupling_accuracy.m',
```

```
[x] coupling lm exec accuracy, fdr05
```

```
command: PBP_vertWiseEffect_Erica_Ts_Yeo7_colors_results_outpath('//project/imco/baller/results/coupling_accuracy.m',
```

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```
## Positive Direction
```

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```
[x] coupling lm age, T=pos, fdr05
```

```
command: PBP_vertWiseEffect_Erica_Ts_Yeo7_colors_results_outpath('//project/imco/baller/results/coupling_accuracy.m',
```

```
[x] coupling lm sex, T=pos, fdr05
```

```
command: PBP_vertWiseEffect_Erica_Ts_Yeo7_colors_results_outpath('//project/imco/baller/results/coupling_accuracy.m',
```

```
[x] coupling lm exec accuracy, T=pos, fdr05
```

```
command: PBP_vertWiseEffect_Erica_Ts_Yeo7_colors_results_outpath('//project/imco/baller/results/coupling_accuracy.m',
```

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```
## Negative Direction
```

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```
[x] coupling lm age, T=neg, fdr05
```

```
command: PBP_vertWiseEffect_Erica_Ts_Yeo7_colors_results_outpath('//project/imco/baller/results/coupling_accuracy.m',
```

```
[x] coupling lm sex, T=neg, fdr05
```

```
command: PBP_vertWiseEffect_Erica_Ts_Yeo7_colors_results_outpath('//project/imco/baller/results/coupling_accuracy.m',
```

```
[x] coupling lm exec accuracy, T=neg, fdr05
```

```
command: PBP_vertWiseEffect_Erica_Ts_Yeo7_colors_results_outpath('//project/imco/baller/results/coupling_accuracy.m',
```

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## Mean images (PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath.m)

[x] mean coupling (abs(T)>2)

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/mean\_maps/n831')

[x] mean alff (abs(T)>2)

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/mean\_maps/lh\_a')

[x] mean cbf (abs(T)>2)

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/mean\_maps/lh\_c')

mean image (PBP\_vertWiseEffect\_Erica\_GI.m) [x] aerobic glycolysis

command: PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/processed\_data/glycolytic\_index\_maps/')

## **Blue and red coupling maps (PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpa**

[x] coupling gam age

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/coupling\_accuracy')

[x] coupling lm age, fdr05

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/coupling\_accuracy')

[x] coupling lm sex, fdr05

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/coupling\_accuracy')

[x] coupling lm exec accuracy, fdr05

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/coupling\_accuracy')

[x] alff gam age, fdr05

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/alff\_accuracy/lh\_g')

[x] alff lm age, fdr05

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/alff\_accuracy/lh\_l')

[x] alff lm sex, fdr05

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/alff\_accuracy/lh\_l')

[x] alff lm exec accuracy, fdr05

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/alff\_accuracy/lh\_l')

[x] cbf gam age, fdr05

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/cbf\_accuracy/lh\_g')

[x] cbf lm age, fdr05

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/cbf\_accuracy/lh\_l')

[x] cbf lm sex, fdr05

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/cbf\_accuracy/lh\_l')

[x] cbf lm exec accuracy, fdr05

command: PBP\_vertWiseEffect\_Erica\_Ts\_pos\_and\_neg\_results\_outpath('/project/imco/baller/results/cbf\_accuracy/lh\_l')

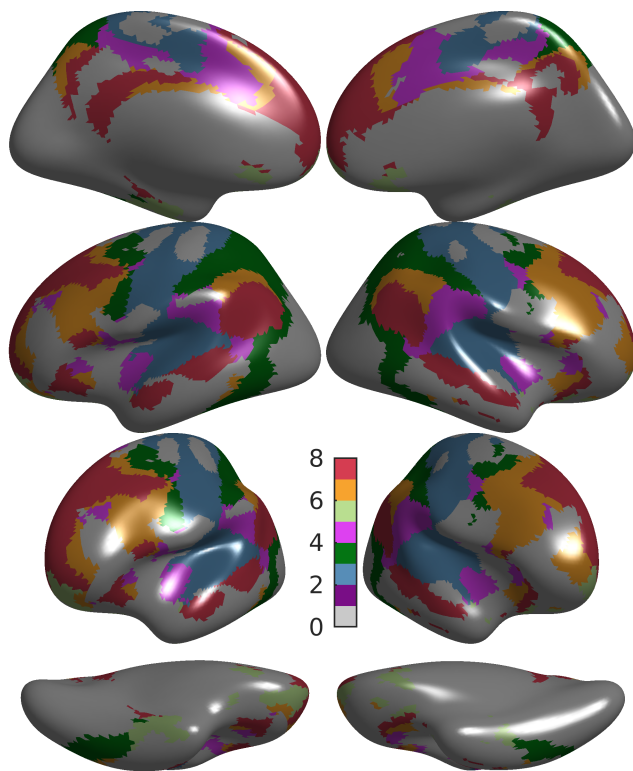


Figure 1:

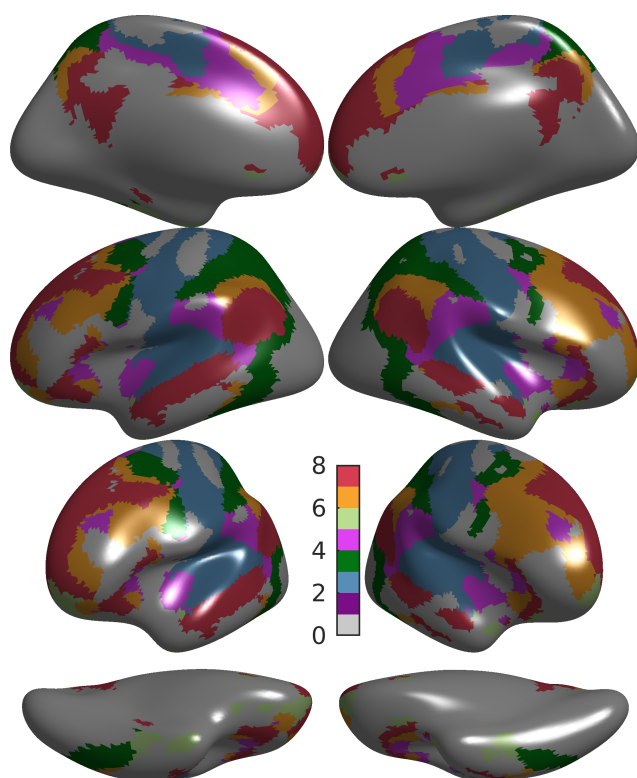


Figure 2:

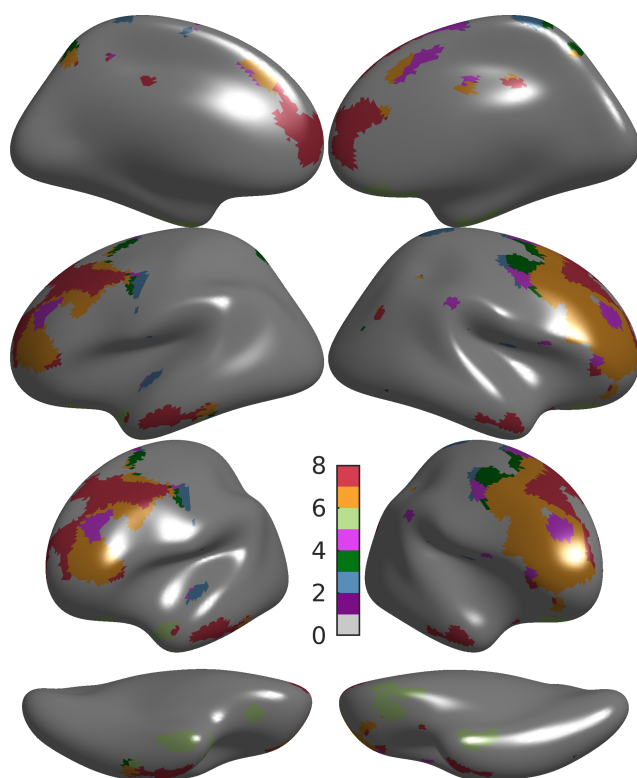


Figure 3:

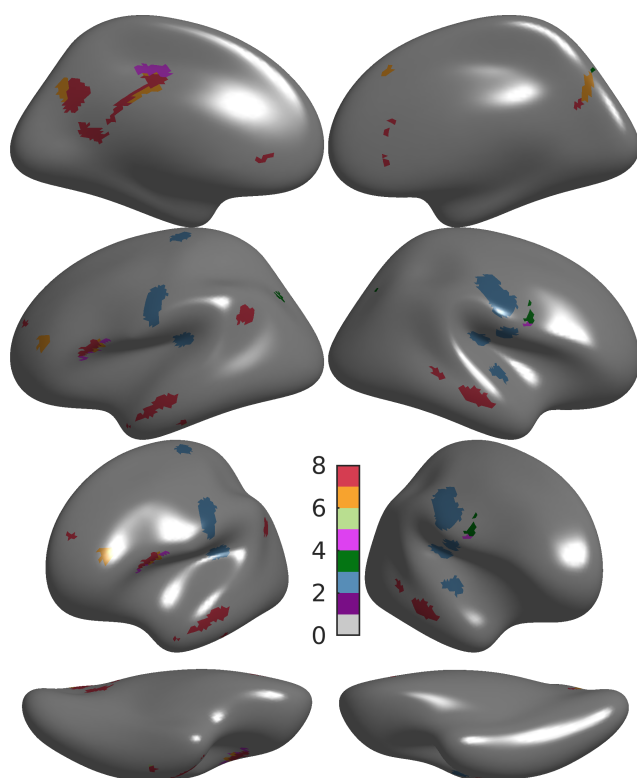


Figure 4:

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```
##
Gam
using
the
nice
plasma
(PBP_vertWiseEffect_Erica_Ts_results_outpath.m)
[x] cou-
pling
gam
age,
fdr05
command:
PBP_vertWiseEffect_Erica_Ts_results_outpath('/project/imco/baller/res
[x] alff
lm age,
fdr05
command:
PBP_vertWiseEffect_Erica_Ts_results_outpath('/project/imco/baller/res
[x] cbf
gam
age,
fdr05
command:
PBP_vertWiseEffect_Erica_Ts_results_outpath('/project/imco/baller/res
[x] cou-
pling
gam
exec ac-
curacy,
fdr05
command:
PBP_vertWiseEffect_Erica_Ts_results_outpath('/project/imco/baller/res
```

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## ## Glycolytic index plasma (PBP\_vertWiseEffect\_Erica\_GI\_plasma\_results\_outpath.m)

[x] GI

command: PBP\_vertWiseEffect\_Erica\_GI\_plasma\_results\_outpath('/project/imco/baller/processed\_data/glycolytic\_index

## 20210219

Making GI masked maps. First, added code to convert\_Ts\_to\_parcel\_for\_display, including adding a flag and special section if you just want to do a generic mask. The idea would be that you take your T map, and multiply it times the mask. You can then display with whatever PBP you'd like. Did not do alff/cbf GI images because - we want to see how they relate to coupling so it doesn't really matter

New images made:

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## Glycolytic index red and blue, masking the T maps (PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath.m)

## bidirectional

[x] gam age, pfd05

command: PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/results/coupling\_accuracy/lh\_gam\_age\_t')

[x] lm age, pfd05

command:PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/results/coupling\_accuracy/lh\_lm\_age\_t')

[x] lm sex, pfd05

command: PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/results/coupling\_accuracy/lh\_lm\_sex\_t')

[] lm exec accuracy, pfd05

command: PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/results/coupling\_accuracy/lh\_lm\_exec\_a')

## positive direction

[x] gam age, pfd05

command: PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/results/coupling\_accuracy/lh\_pos\_gam\_age\_t')

[x] lm age, pfd05

command:PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/results/coupling\_accuracy/lh\_pos\_lm\_age\_t')

[x] lm sex, pfd05

command: PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/results/coupling\_accuracy/lh\_pos\_lm\_sex\_t')

[x] lm exec accuracy, pfd05

command: PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/results/coupling\_accuracy/lh\_pos\_lm\_exec\_a')

## negative direction

[x] gam age, pfd05

command: PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/results/coupling\_accuracy/lh\_neg\_gam\_age\_t')

[x] lm age, pfd05

command:PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/results/coupling\_accuracy/lh\_neg\_lm\_age\_t')

[x] lm sex, pfd05

command: PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/results/coupling\_accuracy/lh\_neg\_lm\_sex\_t')

[x] lm exec accuracy, pfd05

command: PBP\_vertWiseEffect\_Erica\_GI\_results\_outpath('/project/imco/baller/results/coupling\_accuracy/lh\_neg\_lm\_exec\_a')