

#### **Didactics and Demonstrations**



Following along requires installing **AFNI** – see next slide

#### **Getting Setup**

- 1. Install AFNI from https://bit.ly/AFNIstuff
  - Including the Prep for Bootcamp
  - Which will include the data we use
- 2. After proper setup, data for this video should be in directory **AFNI\_data6/afni**
- 3. In a terminal window, cd into that directory
- 4. Type command **afni** to view datasets
  - Type command ls to see file listing in directory

#### **Screen Should Look Something Like This**



### And now – an Interlude with AFNI Hands-On

- Try the BHelp button
  - Over some other
     GUI button
  - Over an image
  - Over the grayscale bar next to the image
- Bhelp works with majority of GUI

Corder: RAI=DICOM *] x = 0.000 mm y = -17.038 mm [A] z = -3.195 mm [I]Xhairs MultiX+ColoryellowGap4Gap4MultiX+ColoryellowGap4ArialImageAxialImageGraphSagittalImageGraphoronalImage	<ul> <li>Original View</li> <li>AC-PC Aligned</li> <li>Talairach View</li> <li>Define OverLay -&gt;</li> <li>See OverLay</li> <li>Define Datamode -&gt;</li> <li>DataDir Switch Read</li> <li>UnderLay EditEnv</li> <li>OverLay NIML+PO</li> <li>Control Surface</li> </ul>
BHelp done	AFNI Tips

AFNI: AFNI\_data6/afni/anat+orig & func\_slim+orig



- Drag image viewer far away, then
- Right click\_\_\_\_\_'
  - what happens to the image window?





- Image viewer #1: Can you do ...
   Invert image
  - grayscale?



 Image viewer #1: Can you do ...
 Invert image grayscale?





- Image viewer #2: Can you do ...
  - Change contrast and/or brightness?



- Image viewer #2: Can you do …
  - Change contrast and/or brightness?





You can also left-click mouse, hold button down, and drag up/down or left/right to change brightness or contrast

- Image viewer #3: Can you do …
  - Zoom in and out?



Image viewer #3: Can you do ... X [A]u AFNI: AFNI\_data6/afni/anat+orig & fu... Colr Swap Norm – Zoom in and out? c 🔽 🔼 X [A]u AFNI: AFNI\_data6/afni/anat+orig & fu... Nori crop с🔽 À left=Anterior short [2%-98%] ttal: Z 🔽 🚺 Done 1ont par cro Use 'pan' to adjust zoom À window ttal: left=Anterior short [2%-98%] 🖪 S Mont Done Sav1.jpg

 Image viewer #4: Can you do ...
 Create a 3x3 montage?





## Try some of the right-click popup menus

## this one is simple: for spatial coordinates



# Try some of the right-click popup menus

### this one is mostly for fun

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Corder: RAI=DICOM *] x = 0.000 mm y = -16.101 mm [A] z = -3.195 mm [I]Xhairs MultiX+ColoryellowGap4Gap4IndexAOAxialImage Image GraphCoronalImage Image Graph	<ul> <li>Original View</li> <li>AC-PC Aligned</li> <li>Talairach View</li> <li>Define OverLay -&gt;</li> <li>See OverLay</li> <li>Define Datamode -&gt;</li> <li>DataDir Switch Read</li> <li>UnderLay EditEnv</li> <li>OverLay NIML+PO</li> <li>Control Surface</li> </ul>	
New Etc-7 BHelp done AFNI Tips		



## Try some of the right-click popup menus

-this one has several commonly used functions for image display and navigation

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Corder: RAI=DICOM *] x = 0.000 mm y = -16.101 mm [A] z = -3.195 mm [I]Xhairs MultiX+ColoryellowGap4MultiX+ColoryellowGap4MultiX+ColoryellowGap4Gap </td <td><ul> <li>Original View</li> <li>AC-PC Aligned</li> <li>Talairach View</li> <li>Define OverLay -&gt;         <ul> <li>See OverLay</li> </ul> </li> <li>Define Datamode -&gt;         <ul> <li>DataDir Switch Read</li> <li>UnderLay EditEnv</li> <li>OverLay NIML+PO</li> <li>Control Surface</li> </ul> </li> </ul></td>	<ul> <li>Original View</li> <li>AC-PC Aligned</li> <li>Talairach View</li> <li>Define OverLay -&gt;         <ul> <li>See OverLay</li> </ul> </li> <li>Define Datamode -&gt;         <ul> <li>DataDir Switch Read</li> <li>UnderLay EditEnv</li> <li>OverLay NIML+PO</li> <li>Control Surface</li> </ul> </li> </ul>	
New Etc-> BHelp done AFNI Tips		

left=Anterior sh<u>ort [2%-98%</u>

## Try some of the right-click popup menus

### has many rarely used options



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Corder: RAI=DICOM *]         x = 0.000 mm         y = -16.101 mm [A]         z = -3.195 mm [I]         Xhairs Multi         Xhairs Multi         X+         Color yellow         Gap       4         Index       4         Axial       Image Graph         Sagittal       Image Graph	
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#### Try some of the right-click popup menus

this one is a shortcut for some options on the more complicated
 'Disp' menu

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New Etc-> BHelp done	AFNI Tips

Anterior short [2<u>%-98%</u>]

AFNI: AFNI\_data6/afni/anat+orig & func\_slim+orig

- What does 'I' keypress do to graph? Then 'i'?
- Use BHelp in graph window
  - Shortcut keys
  - Click Opt menú for more shortcuts, etc
- Change vertical Grid spacing to 15



### **That's All for Now**



KEEP CALM AND CARRY ON