IDEAS
Focus Summer School
Visualization

Welcome!

What we will do

- Visualization theory & practice

- Week 1: In-depth instruction with visualization tools
  - Mornings = Lecture / Discussion / Hands-on tutorials
  - Afternoons = Independent work + "Show and Tell"

- Week 2 : Independent projects
  - Mornings = required attendance
  - Afternoons = optional attendance , except Thurs.
  - Friday = final presentations

Topics : Week 1

- Tues. – 2D Visualization : Design + Matplotlib
- Wed. – 2D Interactives with Bokeh and D3.js
- Thurs. – 3D Interactives with ParaView and WebGL
- Fri. – Survey of other Software...

Topics : Week 1 Friday

- If you are familiar with any of these tools (or others), please give a 10-15 minute demonstration!

  - *Volumetric Data* : VisIt
  - *Web-facing Tools* : x3dom, Plotly, shiny, datawrapper
  - *General Interactives* : OpenGL, Processing
  - *Artist Tools*: Photoshop, Illustrator, Maya, Blender, ffmpeg, Image Magick
  - *Python Tools* : Seaborn , Glue
  - *Mapping* : GMT, NASA WorldWind, cartopy, basemap
  - *R* : ggplot2
  - *Other utilities*: WebPlotDigitizer, Fiji

Project : Week 2

- **Objective:** apply the skills you learn from this course to a visualization project of your choice (ideally related to your research).

- **Important Dates:**
  - Mon. Sept. 9 – Project proposals (informal 1-on-1 with Aaron)
  - Wed. Sept. 11 – Projects half completed (check in with Aaron)
  - Fri. Sept. 13 – Project demos (due to Aaron 10am, presentations 12:00 pm)

- **Submission Material:**
  - 1-page description (e.g., a README file)
  - Pictures / videos / website showing your work
  - Any necessary files / materials

- **Demos – NOT POWERPOINT PRESENTATIONS !! :**
  - 10 minutes each = 7 + 3 for questions
  - We'll bring the food!

GitHub

- **Clone my repo with our class materials:**

  git clone --recursive https://github.com/ageller/IDEAS_FSS-Vis

- **If/when there are updates:**

  git pull --recurse-submodules