



**SPECTRA**  
Collaboration

# **Jupyter Hackathon proposal(s)**

# Goals for the workshop - bone/HR-pQCT in general

- 1) Integrate jupyter notebook with 3D Slicer tools
  - Build on Serena's work
- 2) Automated segmentation of periosteal and endosteal surfaces
  - Begin with Burghardt/Buie autocontour algorithm
  - Knees and MCP joints as test cases
- 3) Build/improve manual correction tools for segmentation
  - Add tools that we're familiar with from uct\_evaluation (e.g., slice selection, morphing)

# Goals for the workshop – joint-specific

1. Implement JSW algorithm in python/jupyter notebook
2. Compare with other JSW approaches
3. Develop robust method for reporting bone-on-bone contact (i.e.,  $JSW = 0$ )