

1125-G1-3074      **Carl Toews\***, toewsc@gmail.com. *IBL with Jupyter notebooks.*

This talk reports on a recent series of upper level IBL-style classes featuring guided computational inquiry (CGI) activities with Jupyter notebooks. One of the barriers to providing substantive computational inquiry activities in the undergraduate classroom is the overhead in teaching students how to code. Jupyter notebooks breach this barrier by allowing executable code and typeset mathematical exposition to be embedded in the same document, tremendously streamlining the passage from exposition to code. Unlike other notebook-type platforms, the Jupyter kernel is configurable, allowing the same basic notebook structure to be used with Python, R, Octave and many other languages. This talk summarizes the results of using Jupyter notebooks with a Python kernel to construct IBL flavored optimization and numerical analysis classes. Student feedback from these courses suggests that the Jupyter notebook can be a powerful element around which to design classroom activities that appeal to students with divergent coding backgrounds. (Received September 20, 2016)