Cybershake to-do list

Here is the to-do list for Cyerbshake:

Current version (18.6):

Computational tasks:

1. Run empirical IM and ratio plots for the remaining faults, and investigate manually
2. Append new subduction result
3. Run hazard map calculations for SA5.0
4. Verify the hazard curves for single locations manually by comparing with the old version of cybershake and empirical results
5. Run hazard calcs for CS18.6 for all IMs existing empirical PSHAs
6. Compare hazard curves and hazard maps for 18.6 and 18.5
7. Incorporate the simulation_epsilon code to the workflow
8. Conduct hazard calculations via python code and compare with the openSHA results

Writing/presentation tasks:

1. Re-structure the current draft to include more of computational aspects
2. Add new figures based on the updated results
3. Finalized the Cybershake "Run Manual" wiki page
4. Run workshop for all software developer to familiarize them with ALL components of cybershake simulations

Future Version:

1. Identify source parameters that can be considered in the list of variable parameters for source generation (besides Mw)
2. Investigate the correlation structure between the chosen parameters
3. Set up the SRF generation code to include these parameters
4. Generate SRF and VM
5. Run verification test on them (both via verification code + manual checks)
6. Run GM sim via new workflow
7. Run IM verification code + do a manual verification
8. Plot IMs
9. run IM a_agg and Hazard calc
10. Compare results from the previous steps with the empirical and previous versions of cybershake runs