DSG – HDice Meeting

Date: September 3, 2020
Time: 2:00PM – 2:30PM

Attendees: Peter Bonneau, Aaron Brown, Pablo Campero, Tyler Lemon, Tom O'Connell, Xiangdong Wei

1. Discussed fsNMR data review program and number of sweeps
    - 1.1. Over weekend, HDice took data for ~400 runs
        - 1.1.1. Typically, fsNMR takes ~100 runs
        - 1.1.2. Greater number of cycles used due to typo when setting up program
    - 1.2. When Xiangdong Wei attempted to use data review program for all ~400 cycles, program would not allow cycles beyond ~200 to be selected
    - 1.3. Tyler Lemon will check program to see if there is a maximum number of cycles that can be reviewed

2. HDice group requested that DSG provide a GPIB communication version of Oxford IPS software
    - 2.1. Current version being used is only capable of RS-232 communication
    - 2.2. NMR program uses GPIB communication
    - 2.3. Tyler Lemon will investigate whether DSG already has a version of the Oxford IPS control program with GPIB communication
        - 2.3.1. If no such program exists, RS-232 version will be modified to allow GPIB

3. DSG is exploring how to communicate with and program Zurich lock-in amplifier through LabVIEW
    - 3.1. No example or basic application exists so all communication and control subVIs must be developed

4. HDice group requested from DSG a CSV to H5 conversion program to allow offline data to be read back into Zurich lock-in amplifier
    - 4.1. H5 is a hierarchical data format that contains multidimensional arrays of data
    - 4.2. For offline analysis, Excel is used for calculations, saving results as a CSV
    - 4.3. Zurich lock-in amplifier requires H5 format for files it reads
    - 4.4. Tom O'Connell will send an example file in H5 format
    - 4.5. Tyler Lemon will investigate how to convert CSV to H5

5. Discussed UITF tests status
    - 5.1. Run 0 completed
    - 5.2. UITF operations approved by DOE for 8 MeV with contingency to allow additional tests of higher powered beam
    - 5.3. This week, able to get ~9.5 MeV beam from UITF during additional tests