**ANALYSIS of PSD DATA – 2025/04/14**

Working folder: C:\cygwin64\home\[FolderName]

list the folder contains all the binary 1h data files: RunRun#-ffff\_Bd0.blk (Run1712-0001\_Bd0.blk)

Run# = run number (4 digits)

ffff = sequential number when there are multiple files of the same run (4 digits)

progs the folder contains the program files for the conversion from binary to ascii:

1) Compile the .cpp script: (this is the modified version that convert each .blk into a .asc)

g++ progs/src/blk2gspect\_v1730-1\_20210716\_r1\_yk\_v1.cpp -o progs/src/blk2gspect\_v1730\_r1

2) Run the compiled file to convert into ascii:

for n in $(seq Run# Run#); do awk -f progs/blk2gspect\_r1.awk -v RUN=$n; done

The output files (list\_Run#-ff.asc) have the format: CHANNEL TOF INTERVAL Ql Qs PSD

3) Merge the file for the same run:

for n in $(seq Run# Run#); do for i in list\_$n\*.asc; do cat $i >> list\_$n.asc; done; done

Convert .asc into .root files:

1) Parse\_[date].C

2) Plot\_PolyFIT\_[date].C

a) PlotFOM\_[date].C (if FOM are calculated and files are merged together)

3) ParseDT\_DTCF\_[date].C