

## Data Management Plan

The CNS Data Management Plan is designed to be compliant with best practices across federal agencies, such as the National Science Foundation, and also to follow the spirit of NIST's special role as a national resource for fundamental data. In particular, we will be compliant with the recommendations and guidelines in NIST's Information Quality Standards:

<https://www.nist.gov/nist-information-quality-standards>

This includes following NIST guidelines for review of all scientific manuscripts by a NIST review board if a NIST employee is a co-author, and appropriately acknowledging the support of the cooperative agreement and any additional specific acknowledgements required by the NCNR.

**Expected data.** This project will generate experimental data both from neutron scattering instruments at NIST as well as data from instruments at UD and other sources. Computer codes and meta data will be generated through the process of data analysis, which includes modeling and simulation data.

**Period of data retention.** The minimum data retention of research data will be three years after conclusion of the award or three years after public release, whichever is later.

**Data formats.** Scattering data obtained at the NCNR will be maintained in NCNR supplied format. Standard NCNR data analysis software will be used and meta data will be in standard NCNR format. Computer codes developed in the course of this work will typically be in the form of scientific standard codes that can be shared, e.g., IGOR, LabView, MatLab, Mathematica, Excel, Fortran, etc...

**Data archiving & preservation.** Data obtained at the NCNR will be backed up by the NCNR according to NCNR policies, and critical data will also be backed up by the individual researchers performing the experiments and subsequent data analysis. Instrument data will be primarily digital in format. Individual researchers will be responsible for organizing and backing up their personal laboratory notebooks. Data will be made available upon request. Digital data at UD will be backed up by a central UD backup system and archived nightly. Upon completion of the project, the data will reside on the data server of the individual research group and the research lead will maintain it and access to it as required.

**Data Access and Dissemination.** Key intellectual results will be posted on the CNS web site [www.cns.che.udel.edu](http://www.cns.che.udel.edu) and individual researcher's web site when appropriate, along with instructions for requesting data. This includes web posting of manuscript preprints when allowed. UD has a policy of publicly posting all publications in a format (accepted, but not published) upon publication, when allowed under the law and by the publisher, and many individual researchers provide such access. In keeping with best practice, it is the responsibility of the individual researcher to be able to produce all original 'raw' data associated with a scientific publication in an accessible format and to be able to provide such raw data upon reasonable request.