

## NOAH Experiments with Non-Uniform Sampling (NUS)

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This package contains a new python script called *noah\_nus* for setting up NOAH experiments with non-uniform sampling (NUS) and a revised set of NOAH processing au-programs for automatic processing of NOAH data recorded with NUS.

### Installation

- 1) Copy the files from the au-folder to your TopSpin#/exp/stan/nmr/au/src/user folder; make sure these au-programs have a priority over the standard au-programs, if you have the latest TopSpin release installed or any previous NOAH packages installed;
- 2) Copy the noah\_nus.py file from the py-folder to your TopSpin#/exp/stan/nmr/py/user folder; this completes the installation.

### Recording the NOAH experiments with non-uniform sampling, NUS

Setting up the NOAH-NUS experiments is extremely simple and involves just two extra steps – selecting the NUS sparsity (NusAMOUNT parameter) and executing the noah\_nus python script.

The NOAH-NUS experiment setup is summarized below:

- 1) select the desired NOAH experiment from the Experiment Selector;
- 2) adjust the spectral parameters, such as o1p, sw, td, td1 and similar;
- 3) set the required NusAMOUNT, depending on the expected complexity of your spectrum, for instance 25 % is a typical setting;
- 4) execute the noah\_nus command. This will generate a new pulse sequence and append the “.nus” extension to the original pulse sequence;
- 5) start the experiment.

*Enjoy the ride in the fast lane !*