Application of non-uniform sampling method in NMR spectroscopy

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Content

To harness the resolving power of high-field NMR spectroscopy, non-uniform sampling (NUS) methods and efficient data reconstruction methods are absolutely required to obtain NMR spectra at otherwise unreachable spectral resolution in indirect dimensions. I will describe necessity of NUS methods in high-field NMR spectroscopy and my experience using the methods developed by Wagner laboratory at Harvard Medical School [Hyberts, et al., 2011; Hyberts, et al., 2012]. These important methods include the Poisson-gap sampling method, the Forward Maximum entropy (FM) reconstruction method [Hyberts et al., 2012], and the iterative soft thresholding (IST) method [Hyberts et al., 2011]. These methods will be used to record and reconstruct all demanding 3D or 4D experiments.

References

Summary

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