

## RISE Talks Series

- Who?** Andy Evans, RISE Associate
- What?** New(er) Automated Nuclear Magnetic Resonance Techniques Available for Organic Structure Determination at Drew
- When?** 12:00-1:00 on Wednesday, February 18
- Where?** Hall of Sciences, Room 326

Nuclear Magnetic Resonance (NMR) is a powerful approach for the structure determination of organic molecules. The key to NMR structure determination is the ability to correctly assign NMR lines to atoms in the molecule of interest. This assignment is most readily accomplished by application of sophisticated NMR techniques, many of which appear to be out of reach of the routine user. Fortunately, Drew has an NMR spectrometer with an automation system that makes simple the acquisition of NMR data, both advanced and routine. Even more fortunately, the interpretation of such data is generally straightforward, even if the *modus operandi* of the physics of the method producing the data seems elusive. In this talk the procedure to submit samples for nine techniques in the Drew automation system will be described. An example molecule has been chosen to demonstrate data collection using all nine techniques in a single sample submission. Interpretation of the collected data will be discussed with emphasis on how each technique leads to the assignment of NMR spectral lines to specific atoms in the molecule of interest.