

DEALING WITH COMPLEXITY IN ROTATIONAL SPECTROSCOPY. Steven T. Shipman, Noah H. Anderson, and Ian A. Finneran, Division of Natural Sciences, New College of Florida, Sarasota, FL 34243.

Advances in spectrometer design and in sources and amplifiers that work up to 1 THz have led to an explosion in the amount and quality of rotational spectra that can be collected. These tools have allowed spectroscopists to study increasingly larger and more complicated systems, but our ability to collect this data is surpassing our ability to analyze and interpret it in a timely fashion. A few days of data collection can now lead to weeks or months of analysis and this bottleneck is getting worse as the instrumentation improves. In this talk, I will illustrate this problem with a few examples and discuss some approaches that we are using to circumvent it by speeding up and partially automating the data analysis process.