Improved methods for determining the secondary structure of proteins using FTIR spectroscopy

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— The determination of the secondary structure is vitally important in the study of proteins. An oft overlooked and underused method to probe the secondary structure of a protein is Fourier transform infrared (FTIR) spectroscopy. A great compliment to both X-ray and NMR techniques, the speed and relatively low cost of FTIR measurements provide a wealth of information about the structure of a protein. To enhance the accuracy of secondary structure calculations, improved methods in the fitting of absorbance spectra are needed. In this talk, we will explore the development of these methods and apply them to a few well studied proteins.