THE DEVELOPMENT OF HIGH RESOLUTION COHERENT MULTIDIMENSIONAL SPECTROSCOPY AT SPELMAN COLLEGE

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Coherent multidimensional spectroscopy is one of the most powerful techniques that has been developed in recent years. In this talk, we describe how our undergraduate research group has created a series of high resolution coherent 2D and 3D spectroscopic techniques. These techniques have the ability to overcome severe spectral congestion commonly encountered in rotationally resolved molecular spectra. They can also automatically sort peaks by quantum number, species, and selection rule.