

I plan to provide a review of the motivations for direct detection THz spectroscopy within an astrophysical context. I will discuss conventional grating spectrometers and Fabry-Perot based imaging spectrometers and grating spectrometers that we have built at Cornell and used on premier submillimeter facilities. These instruments are based on conventional thermistor-sensed or superconducting transition-edge-sensed bolometer arrays and have demonstrated background limited performance at the best submm sites. I will include a discussion of the astrophysics we address, and conclude with a discussion of future directions in the field.