Adam Leroy (OSU) Keynote Speaker

Cold Gas in Nearby Galaxies in the ALMA Era

ALMA and advanced instrumentation on other facilities, including the GBT, are revolutionizing our view of cold gas in nearby galaxies. Capabilities previously restricted to the brightest targets can now be deployed in "survey" mode. I will review a bit of the history of observations of cold gas in galaxies, and discuss where the field is headed in the next few years. I will emphasize what we learn from multi-line spectroscopic surveys and high resolution, high fidelity, high completeness imaging. Both of these capabilities have been advanced an order of magnitude by ALMA, so that this field is rapidly moving quickly beyond only low resolution CO observations.