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New ALMA Observations of the Galactic Center Circumnuclear Disk

I will present first results from a Cycle 2, Band 3 and 6 excitation study of the gas within 2 parsecs of the central supermassive black hole of the Milky Way. These data comprise a comprehensive survey of this region at arcsecond (<0.1 pc) resolution in numerous spectral lines, including isotopologues and vibrationally excited lines that are thought to trace the radiation field in this extreme environment. The results of this project will give the best constraints to date on the gas density of this region and the potential of this gas to form stars. These data will also yield important insight into the role that opacity and radiative excitation may play in complicating the determination of gas densities via excitation analysis in more extreme environments.