FIFI-LS FIR VIEW OF ORION: FINE STRUCTURE AND CO LINES

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The Orion Nebula is the closest massive star forming region, which allows us to study its physical conditions at high spatial resolution. We used the far infrared integral-field spectrometer, FIFI-LS, on-board the airborne observatory SOFIA to study the Orion Nebula's atomic and molecular gas.

We obtained large maps of fine structure and CO lines that span the nebula from the BN/KL-object to the bar. These maps allow us to study the conditions of the photon-dominated region and the interface to the molecular cloud.

A five-hundred-year-old violent explosion in the Orion Nebula has been stirring up the BN/KL region via wide-angled molecular outflows. We present maps of several high-J CO observations, allowing analysis of the heated molecular gas.