
CCAT/FYST and its Science Goals

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Abstract

CCAT is an international consortium which is building the Fred Young Submillimeter Telescope (FYST) in the high Atacama Desert of Northern Chile. FYST is a 6-m, off-axis, wide-field telescope which will have two instruments at first light: Prime-Cam and CHAI. Prime-Cam contains up to seven instrument modules each with a 1.3-degree field-of-view spaced over 5 degrees in the focal plane. These science modules will perform either broadband or medium spectral-resolution imaging. CHAI is a high-resolution 64-beam, heterodyne spectrometer capable of resolving Doppler motions in interstellar medium. The frequency range covered by these two instruments is 220-850 GHz. Science being pursued with FYST includes studies of dust and gas in the Milky Way and nearby galaxies, the formation of galaxies and clusters of galaxies, the era of reionization and the cosmic microwave background.

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