

Title of Presentation: Studies of the Coldest Brown Dwarfs with the James Webb Space Telescope

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Abstract

The coolest T and Y-class Brown Dwarf objects are very faint and are therefore very poorly understood, since they are barely detectable with the current astronomical instrumentation. The upcoming James Webb Space Telescope now in development for a launch in the Fall of 2018 will have vastly increased sensitivity in the near and mid-infrared compared to any current facilities and will not be affected by telluric absorption over its entire wavelength range of operations. As a result it will be an ideal tool to obtain information about the composition and temperature-pressure structure in these objects' atmospheres. This presentation will outline the JWST guaranteed time observing plans for these studies.