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Abstract for an Invited Paper for the OSS21 Meeting of the American Physical Society

The Hunt For Cosmic Monsters: Confusion in the Herschel Sky JILLIAN SCUDDER, Oberlin College

Observing galaxies in the Far-Infrared (FIR) gives us a unique window into the star formation rates of high redshift, dusty galaxies. These galaxies are generally thought to be forming stars at a prodigious rate, heating their dust within their host galaxy, which then radiates in the FIR. However, observing this luminous dust is difficult, even with a space-based telescope such as the Herschel Space Observatory, as the resolution of the images returned is quite poor. It is often assumed that a bright source in the FIR belongs to a single, highly star forming galaxy, but this is impossible to verify with low resolution images. In this talk I will discuss a method of determining how many galaxies are blurred together into a single FIR detection, and what these results imply for our understanding of star formation in the younger Universe.