

X32a **High-resolution ALMA observations of the brightest unlensed SMGs I: Discovery of a spiral structure in an extreme star forming galaxy at $z=4.2$**

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With SFR in excess of $1000 M_{\odot}/\text{yr}$, the brightest SMG population represent the most massive of the young galaxies rapidly building up their mass in the early universe. However, its exact formation mechanism is not clearly understood primarily due to limits in angular resolution and the intrinsically dusty nature of these galaxies. We have obtained $< 0.1''$ resolution Band 7 (850 micron) data using the Atacama Large Millimeter/sub-millimeter Array in three unlensed SMGs in order to understand the true structure and characteristics of the brightest star forming galaxies in the distant universe. In this contribution, we present the highlights from the most recent results obtained from our deep $0.05''$ resolution continuum observations. In particular, we present our recent discovery of forming spiral-arms that are dominating the galactic structure in a $z = 4.2$ galaxy. The new evidence will in turn offer significant new insights to the formation process of the submillimeter galaxy population.