T07c ALMA Detected Overdensity of Sub-millimeter Sources Around WISE/NVSS-selected z \sim 2 Dusty Quasars

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We study the environments of 49 WISE/NVSS-selected dusty, hyper-luminous, $z\sim2$ quasars using the Atacama Large Millimeter/Sub-millimeter Array (ALMA) 345 GHz images. We find that 17 of the 49 WISE/NVSS sources show additional sub-millimeter galaxies within the ALMA primary beam, probing scales within ~150 kpc. We find a total of 23 additional sub-millimeter sources, four of which are in the field of a single WISE/NVSS source. The measured 870 μ m source counts are ~10× what is expected for unbiased regions, suggesting such hyper-luminous dusty quasars are excellent at probing high-density peaks.