X39a **Two-point angular correlation function of Dust Obscured Galaxies discovered by HSC and WISE**

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We present the clustering properties of Dust Obscured Galaxies (DOGs) which are likely to be a progenitor of present-day galaxy clusters but to be missed by previous surveys. Combining wide and deep optical images obtained with the Hyper Suprime-Cam (HSC) on the Subaru Telescope and all-sky mid-infrared images taken with Wide-Field Infrared Survey Explorer (WISE), we discovered 4,367 DOGs with $(i-[22])_{\rm AB} > 7.0$ and flux at 22 μm $>$ 1.0 mJy, that is the largest sample so far. For 1,411 subsample with 3.0 mJy $<$ flux (22 μm) $<$ 5.0 mJy and $i_{\rm AB} < 24.0$ in $\sim$ 100 deg^2 selected by taking account the uniform depth for entire field, we calculate the two-point angular correlation function (ACF) that is one of the tools to investigate the clustering properties. Given the ACF and redshift distribution in an adopted cosmology, we can calculate the correlation length that corresponds to the clustering strength of objects, providing information of the mass of dark matter haloes in which they reside. We found that their correlation length is $r_0 = 9.83 \pm 1.70$ h^{-1} Mpc, which is consistent with those of quasars and submilimeter galaxies at $z \sim$ 2–3. This correlation length indicates that their bias factor is $b = 4.97 \pm 0.82$ and they reside massive dark matter halo mass with $\log [M_{\rm DMH}/ (h^{-1}\ M_{\odot})] \sim 13.3$ (Toba et al. 2016b to be submitted).