X42a WERGS: Lyman break radio galaxies found by Subaru HSC

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We will present the results of our high-z radio galaxy survey using Subaru HSC-SSP and archival radio data. High-z radio galaxies are known to be an essential population for deeply understanding the formation of massive galaxies in the early universe. Current known high-z radio galaxy samples are limited in number and are biased against radio SEDs. Our radio galaxy survey, WERGS (Wide and Deep Exploration of Radio Galaxies with Subaru HSC, Yamashita et al. 2018, ApJ, 866, 140), is an on-going project to explore optically faint radio galaxies based on Subaru HSC-SSP and radio archival data. We constructed a new high-z radio galaxy sample with Lyman break technique for radio detection sources. This method has been demonstrated by the discovery of $z = 4.7$ high-z radio galaxy (Yamashita et al. submitted) that was reported in 2019 Spring Annual Meeting. Currently we have 35 g-dropout and 4 r-dropout high-z radio galaxy candidates. This presentation focuses on the sample selection method and the properties of host galaxies of the candidates.