

Abstract Submitted
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Small Lensed $z \geq 5.5$ Galaxies Selected as Potential Lyman Continuum Leakers¹ CHLOE NEUFELD, MARUSA BRADAC, VICTORIA STRAIT, BRIAN LEMAUX, University of California, Davis, LILAN YANG, Wuhan University, TOMASSO TREU, University of California, Los Angeles, DAN COE, LARRY BRADELY, STScI, ADI ZITRIN, Ben-Gurion University, MARIO NON-INO, INAF, RELICS COLLABORATION — The study of high-redshift galaxies is a key aspect of constructing a complete picture of galaxy formation and evolution, and their properties can lend insight into the conditions of the early universe and the process of reionization (the ionization of neutral hydrogen in the intergalactic medium by light sources in the early universe). Galaxies magnified by gravitational lensing are especially important to analyze these high-redshift populations, with the advantage of appearing brighter with higher spatial resolution while remaining intrinsically faint. I will present size measurements of 78 high-redshift ($z \geq 5.5$) lensed galaxy candidates from the Reionization Lensing Cluster Survey (RELICS), imaged by the Hubble Space Telescope and the Spitzer Space Telescope. I compute sizes using the forward-modeling code Lenstruction and account for magnification using public lens models. I will discuss the resulting small size measurements and highlight compact and highly star-forming sources as possible Lyman continuum leaker candidates with high inferred $[\text{OIII}]+\text{H}\beta$ that could be major contributors to the process of reionization.

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