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Abstract:

To understand the star-formation process in the early primordial Universe, there have been studies of local analogues of high redshift galaxies such as Green Peas which have low metallicities, low reddening, and among the highest specific star formation rates. Recently, there has been the discovery of low redshift (z less than 0.05) very young (specific star formation rate greater than 10^-8 yr-1) star-burst blueberry galaxies which are compact and have the lowest metallicities and resemble high redshift systems like Lyman-alpha emitters in their low metallicities and ionization parameters. To probe if there is a large reservoir of cool neutral atomic hydrogen gas that has fueled this starburst or whether these systems are depleting gas at a fast rate, we earlier observed 21cm in emission towards these galaxies with the FAST (project code PT2020_0082). However, due to the RFI from the feed compressor in the frequency range 1340-1400 MHz, most of our sources have bad data. Recently, the RFI problem has been solved. Hence, we propose to observe the sample of 27 blueberry galaxies (including 20 observed earlier) in the current cycle. We request a total observation time of ~19.2 hours.