This proposal has been submitted before.

The previous proposal number is A2715.

Proposal Title: HI Content of Mid-IR Bright, Low Metallicity Blue Compact Dwarf Galaxies

Abstract:

We propose to measure the HI contents of 10 selected nearby metal-poor blue compact dwarf galaxies (BCDs) using ALFA on Arecibo Telescope. This is an extension of our successful pilot project in 2012. These BCDs, selected by their red and bright mid-infrared emission using WISE mid-infrared data, are undergoing a starburst phase in the low metallicity environments, possibility their first major episode of star formation. It is a mystery why the gas in these systems has remained in a relatively pristine state with little metal enrichment in their early star formation cycles over the Hubble time, but recently have they exhibited active star formation. The proposed observations will probe the neutral gas as the fuel resource of the current intensive star formation activity, and provide the essential first step toward the further understanding of gas dynamics in these systems.

Name | Institution | E-mail | Phone | Student
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Remote Observing Request

- Observer will travel to AO
- Remote Observing
- In Absentia (instructions to operator)

Instrument Setup

ALFA

Atmospheric Observation Instruments:
Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1420-1460