

The Third National Workshop on the SKA Project - The Italian Route to the SKAO Revolution



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Comparing APERTIF HI statistics with baryonic scaling relations in the Local Universe

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We present estimates of the atomic gas mass MHI in galaxies within the APERTIF SNS survey region. To do this, we have relied on empirical gas scaling relations based on stellar mass and star-formation rate established in the Local Universe. From the inferred HI masses, we derive HI mass functions (HIMFs), and find reasonable agreement with HIMFs derived observationally. The comparison with APERTIF HI content shows that HI-selected samples and optically- or mass-selected samples behave differently. The details of these differences will help constrain future predictions and inform models of galaxy evolution.

Research area

HI galaxy science

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