



# Observing Application

Date: Jul 2, 2007  
Proposal ID: VLA/07C-232  
**Legacy ID: AB1278**  
PI: Maite Beltran  
Type: Rapid Response  
Exploratory Time  
Category: Galactic  
Total time: 0.5 hour

## The hyperyoung HII region G24.78+0.08 A1 [resubmission]

### Abstract:

This is an Exploratory Time proposal whose purpose is to obtain a high resolution image at 6 cm of the free-free continuum emission from a hypercompact HII region. Previous VLA+Pie Town continuum images at 1.3 cm and 7 mm complemented by H<sub>2</sub>O maser proper motion VLBA measurements have proved that this is a "hyperyoung" HII region of only 40 yrs. We wish to study the structure of the source at 6 cm with an angular resolution comparable to that attained at 7 mm (35 mas): this can be achieved with MERLIN. This VLA proposal has the scope to measure the flux density of the HII region at 6 cm and thus demonstrate that it is sufficiently strong for a MERLIN experiment.

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### Related proposals:

AB1196

### Joint:

Not a Joint Proposal

### Observing type(s):

Continuum, \*

**Resources:**

Resource name	Tele. Conf.	Frontend & Backend	Set up
1	VLA A	C Band 6 cm 4200 - 7700 MHz VLA Correlator - Single Channel Continuum	Bandwidth: 50 MHz  Rest frequencies: 4885.1, 4835.1 MHz

**Sources:**

Source name	RA / RA Range	DEC / DEC Range	System	Velocity/z	Group name
G24.78+0.08	18:36:12.6 00:00:00.0	-07:12:10.146 00:00:00	J2000	111 km/s	

**Sessions:**

Session Name	Session Time	Repeat	Separation	LST Minimum	LST Maximum	Elevation Minimum
1	0.5 hour	1	0 day	15:00:00	22:00:00	25

**Session Constraints:**

Session Name	Constraint	Comments
1	The final goal of this project is to use the VLA measurement to support a MERLIN proposal: we thus ask to schedule the observations before the end of August (the MERLIN deadline is September 15).	

**Session Source/Resource Pairs:**

Session Name	Source	Resource	Time	Figure of Merit
1	G24.78+0.08/	1	0.5 hour	0.045mJy/bm

**Total Time per Configuration:**

Configuration	Total Time
A	0.5

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Present for observation: no    Staff support: Consultation