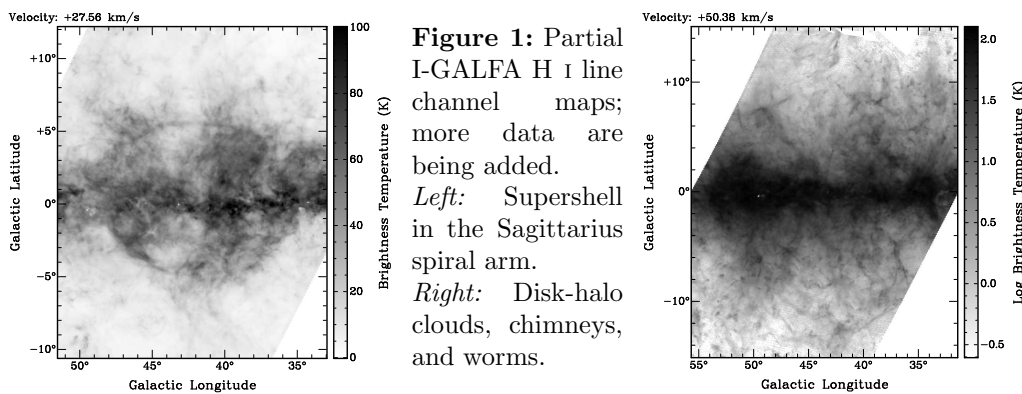


I-GALFA: The Inner-Galaxy ALFA Low-Latitude H I Survey

Bon-Chul Koo¹, Steven J. Gibson^{2,3}, Ji-hyun Kang^{1,2}, Kevin A. Douglas^{4,5}, Geumsook Park¹, Joshua E. G. Peek⁵, Eric J. Korpela⁵, Carl E. Heiles⁵, Thomas M. Bania⁶

¹Seoul National Univ., KOREA; ²Arecibo Obs., USA; ³Western Kentucky Univ., USA;
⁴Univ. of Exeter, UK; ⁵Univ. of California - Berkeley, USA; ⁶Boston Univ., USA

The I-GALFA survey is mapping all the H I in the inner Galactic disk visible to the Arecibo 305m telescope within 10 degrees of the Galactic plane (longitudes of $\ell = 32^\circ$ to 77° at $b = 0^\circ$). The survey, which will obtain $\sim 1.3 \times 10^6$ independent spectra, became possible with the installation of the 7-beam Arecibo L-Band Feed Array (ALFA) receiver in 2004. ALFA's $3/4$ resolution and tremendous sensitivity offer a great opportunity to observe the fine details of H I in the Galaxy. The I-GALFA survey began in 2008 May and will be completed in 2009 September. Night observations between May and October are used for best spectral fidelity, allowing an RMS noise of ~ 0.25 K in 0.184 km s^{-1} channels covering LSR velocities of -750 to $+750 \text{ km s}^{-1}$. Details of the observing and data reduction can be found in Peek & Heiles (2008). The data will be made publicly available when the calibrated and gridded cubes are completed. Further information on the I-GALFA project may be found at www.naic.edu/~igalfa.



Acknowledgements

It is our great pleasure to thank all members of the AO staff for the support of the I-GALFA survey. B.-C. K. is supported by the Korean Research Foundation under grant KRF-2008-313-C00372. K. D. was supported by a Marie Curie fellowship. The Arecibo Observatory is part of the National Astronomy and Ionosphere Center, which is operated by Cornell University under a cooperative agreement with the U.S. National Science Foundation.

References

Peek, J. E. G. & Heiles, C. 2008, *astro-ph* arXiv:0810.1283v1