GLIMPSE 360: Mapping the Outback of the Galaxy with Spitzer Space Telescope

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Received _____; accepted _____

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ABSTRACT

Subject headings:

1. Introduction

overview of all glimpse projects– coverage and sensitivity

how they differ. glimpse–lots of diffuse background. glimpse3d more stars. glimpse360 lower backgrounds. more galaxies, stars, clusters. deeper so still see PAH bubbles at 3.6. much fainter YSOs.

2. Observations

(barb, marilyn, brian)

figure: survey area.

table: dates of observations

3. Data Processing and Data Release Plans

(barb, marilyn, brian)

Figures. flux calibrators, logn-logs

4. Initial Results

4.1. Galactic Structure

bob benjamin

van Loon & Tatton. Galactic structure with red clump stars.

figure: star counts vs galactic long for whole 360 degree?

compare to CO? (Mottram, Brundt?)

4.2. Dust Extinction Law in the Outer Galaxy

3-D dust mapping and Galactic structure?: Zasowski, Nidever, Majewski,

3-D dust mapping, IRDCs? Yeh, Liu

3-D dust mapping? Marshall, Brunt?

4.3. Star Forming Regions

Charles, Barb, Marta, Matt, Tom, Claudia, Cosmos, Sheng-Yuan?

Charles: outer Galaxy SFR, using CBT 102 as an example. highlight numerous other data.

Marta and Barb: cc cm plots in and out of star forming regions. run fitter?

Matt? SFR? cold/warm mission analysis comparison?

Outflows: Barb. show some examples. refer to Tom, Claudia's paper for automated algorithm. (Cyganowski et al. 2008)

IRDCs? Cosmos, Sheng-Yuan

compare to WISE and CO

4.4. Evolved Stars

Martha & Jacco. cc, cm plots

van Loon, extreme carbon stars.

4.5. Comparison with Other Data Sets

not sure where to put this, first or last or throughout this section.

CO (Mottram, Brunt)

UKIDSS GPS (Lucas)

WISE images (and catalogs?)

5. Potential for Discovery

this is where we can put fun stuff in that we haven't done any science on.

Due to the lower diffuse backgrounds, lower extinction, and deeper sensitivity than the GLIMPSE survey, we are confident that the scientific community will be able to accomplish the science goals we had hoped even with only the 3.6 and 4.5 micron bands.

Churchwell et al. (xxx) cataloged xxx PAH bubbles in the GLIMPSE survey. Milky Way project has cataloged thousands more. PAH bubbles are easily seen at 3.6 microns in the GLIMPSE360 survey. (Ed)

Stellar clusters stand out in GLIMPSE360 better than in GLIMPSE without the contamination of excess diffuse emission. (Chip?) (Majewski?)

External galaxies stand out due to lower extinctions. (Tom Jarrett?)

We can see evolved stars to the edge of the Galaxy, low-mass YSOs and outflows.

HB3 supernova remnant. (Jeonghee)

show a figure with a compilation of all these different kind of objects: galaxies, bubble, star cluster figures of these.

describe IRDC method (cosmos)???

and SFR methods (tom, matt; ref new papers on SFR–povich and some c2d paper).

These and more discoveries await us.

We are grateful to Spitzer Science Center for their excellent work scheduling and processing the IRAC data.

REFERENCES

Cyganowski, C. J. et al. 2008, AJ, 136, 2391

This manuscript was prepared with the AAS LaTeX macros v5.2.