

1

+ Overview

- You *will* be exhausted.
- You *will* be over-stimulated and under-caffeinated.
- SO IS EVERYONE ELSE.
- You will not understand everything.
- NEITHER WILL EVERYONE ELSE.

2

+ Giving this some structure

- The AAS is big and can be overwhelming.
- I have a worksheet/treasure hunt/bingo card set if you want help with giving yourself some structure to work through.

3

+ Pay attention to your body

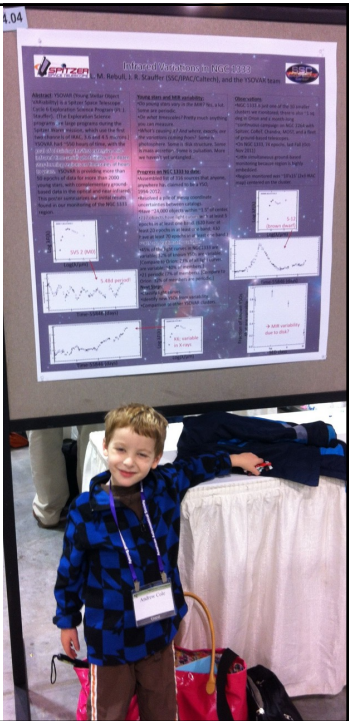
- *Hydrate.*
- Stop and eat.
- May wish to carry protein-based snacks.
- *It's ok to stop* and take a rest if you need to.

4

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- There will be a lot of talks
 - Some plenary (designed for everyone to attend at once).
 - Some rapid-fire parallel sessions (going in and out is expected; try to do so as quietly/politely as humanly possible).

- There will be a lot of posters
 - These change daily.
 - The posters are now electronic and nominally are “up” for 60-90 minutes but available 24/7.



5

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- You will wish you can get away with this...

- **GO AND TAKE A TIME OUT IF YOU NEED TO.** Sleep, go for a walk.



This child wants you to know he is now 16 and 5'7" and no longer sleeps at conferences, but on the whole would rather attend marine biology meetings...

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+ You wear many hats...

- You are a complex being, with many reasons for being here.
- BUT, the reason we paid for your travel to be here is to be a *scientist first*.
- Yes, of course, you're educators (or students) too. By all means, network and learn on that front.
- However, ALSO, **step into the role of scientist**. Don't excuse yourself from an opportunity because you don't feel like a scientist. **You are one now!**

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+ You wear many hats...

- Not everything you see or hear at this meeting is correct!
- Part of your job as a scientist is to see if what the other scientists are presenting seems correct to you.
- (Certainly, people aren't knowingly presenting wrong things, but often a conference presentation is a 'test flight' for new work that may not be completely thought out.)
- 2025: You will be presenting next year! What works in a poster? What doesn't?

8

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Bad poster bingo

Different parts of poster don't line up	Boxes within boxes	Zigzag reading order	More than three typefaces	Long-winded title
Gradient fills in coloured boxes	Big blocks of text	Photographic background	Unlabelled error bars on graphs	Pixelated pictures
More than five colours	Institutional logos bookending title	Free space	ALL CAPITALS	Text with shadows, outlines, or bevels
Abstract	<u>Underlined text</u>	Comic Sans	3-D graphs	Checking tablet or phone during presentation
Tables showing data that could be in a graph	Poster does not fit on poster board	Comic Sans (it's that annoying)	Objects almost touching or overlapping	*Try, unreadable type

By Zen Faulkes, betterposters.blogspot.com

Inspired by: <http://www.monicaetzler.com/bad-presentation-bingo/>

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The community (muggles and astronomers) is welcoming... for the most part. 😊

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10

+ Ask Questions!

- Astronomers *love* talking about their research like muggles like talking about their children. (→)
- **DO NOT BE AFRAID TO ASK QUESTIONS.** You don't even have to preface it by "I'm a high school teacher, and ..." Just ask. If they pitch the answer too high, then you may wish to explain where you're coming from. They may read your nametag and ask.
- **DO NOT BE AFRAID TO ASK QUESTIONS.** Especially if there is a youngish person standing by a poster, they will be **THRILLED** to explain what they're doing. *You may have to beg them to stop.*

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+ Art mimics reality



- Sadly, there are some Sheldon Coopers. (= socially inept, arrogant)
- Sadly, there are also some Howard Wolowitzes (prior to his relationship with Bernadette). (=skeevy)
- MOST of us are closer to Leonards: Well-meaning, polite, social, smart, happy to share, respectful.
- Use your common sense. Back off if you get a strange vibe.
STUDENTS: TRAVEL IN PAIRS.

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+ Politics ...



- In general, this is a professional setting. That means stay away from politics (and religion)!
- There is a research article about the political leanings of scientists that asserts that astronomers are the most liberal among all the sciences (which are already more liberal than the general population).
- That, plus everyone is coming back from holidays in which they may have had to be polite to extended family (→). People may forget the rules of professional behavior (and may just assume you are like many of the others here). You're in the clubhouse ...

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+ What to expect

- Talks – largely: long & plenary, or short & parallel
 - Some aimed at undergrads and/or amateurs and/or other newer folks (look for these!)
 - Some press conferences (probably want to look for these)
- Posters – NITARP teams and much, much more
 - Electronic, so “up” nominally for 60-90 minutes but available 24/7.
- Booths – industry, missions, publishers, archives
- “Town Halls” – Astropolitics
- Typically, this meeting has been >3000 people. >4000 are registered, but in past years, people withdrew with COVID (or RSV or flu).

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+ Another dimension



- During the worst of the pandemic, these meetings were 100% online.
- Portions of that experience have been continued on into in-person meetings.
- iPosters – meh. I think it's a tragedy we've abandoned regular posters. That's a separate rant. It *is* a plus that they are available on demand anytime, after the meeting.
 - We have “NITARP day” on Tuesday at the IPAC booth as a patch, sigh.
- Slack – a clear advantage! This is a large message board where you can communicate with groups or individuals, ask questions, see what others are doing, etc. **Definitely join Slack.**
 - 'shift-esc' clears all unread slack notifications!

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+ How to figure out what to do





- Try the NITARP AAS worksheet/bingo card!
- Collaborate with others!
- Start by picking your “must see items” and create an itinerary based on the block schedule on the AAS website.
- Use the mobile app to assemble a schedule.
- Look at the highest-level things before diving into details (→)
- (How to read the block schedule ...)


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Intro to the AAS




- **The AAS can be overwhelming so take it one bit at a time**
- **Drink lots of water**
- **If you get tired...find a place to sit down or go back to your room and rest**
- **The more tired you are the less you will absorb**
- **Talks and Posters are the main way information is exchanged**
- **The talks are either 5 minutes or 15 minutes for dissertation talks followed by questions**
- **The posters are put up in a big hall and arrayed by category**

VG

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How to read a science poster in the absence of one of the authors



With your previous knowledge and the summary/conclusion you should now have a full sense of what this research is about

Spitzer and DIRBE Studies of the Infrared Background

Varoujan Gorjian¹, Michael W. Werner¹, John Livingston¹, Massimo Marengo¹, Rebecca Park², Richard G. Arendt¹, Ranga-Ram Chary¹, Michael G. Hauser¹, Edward L. Wright¹

1 NASA/JPL-Caltech, Pasadena, CA 91109; 2 University of California, Berkeley, CA 94720

ABSTRACT

The Extragalactic Background Light (EBL) is defined as the sky surface brightness of all radiation arising from outside the Milky Way. At 1–5 μm the EBL carries the imprint of the emission from the nearby Universe, and not distant light from the far galaxies and any possible pregalactic contributions. The DIRBE instrument on the COBE satellite has measured the total sky brightness, the Infrared Background (IRB), over the entire sky at 3.3, 4.5, 8, 9, and other wavelengths. The IRB is the sum of the infrared light, Galactic starlight, radiation from the EBL, and the EBL. The Integrated Galactic star is a major component of the far infrared (FIR) at 3–5 μm . The infrared detection of this study is to gain a more precise measurement of the 3.4–4.5 μm EBL by improving the subtraction of the Galactic starlight from the IRB, while simultaneously getting a measurement of the Integrated Galaxy Light (IGL), which is the sum and contribution of all galaxies which can be detected by Spitzer. A significant difference between the IGL and the IRB may indicate an yet unobserved component in the EBL. We will present preliminary results from Spitzer Space Telescope observations of one of our 242 degree regions of sky to determine the most recent components of the IRB at 3.4 and 4.5 μm . These wavelengths are near the maximum brightness of the Integrated Infrared Extragalactic (IIR) which also carries information regarding the EBL, but is being addressed by other experiments. In this program, we will discuss the following steps aimed at reducing the uncertainties in the EBL: 1. Cross calibrating DIRBE and Spitzer photometry at 3.3, 4.5 and 8.45 μm to the IRB, and the IGL, and the EBL, and the EBL, 2. Reducing uncertainties in the IRB, by measuring stars as far as 100 mag and subtracting their contribution from the measured IRB; 3. Determining the IRB and the IGL at six widely separated positions in the sky to assess their consistency with each other and to assess their anisotropy and have their cosmological significance.

Introduction

Observations

Conclusions

Summary


Table 1: Contributions to the IRB at 4.5 μm in the 242-Degrees Field (Left to Right)

Component	Flux Density ($\mu\text{Jy/arcmin}^2$)	Flux Density ($\mu\text{Jy/arcmin}^2$)	Flux Density ($\mu\text{Jy/arcmin}^2$)	Flux Density ($\mu\text{Jy/arcmin}^2$)
Galactic Starlight	1.2	1.2	1.2	1.2
IGL	0.8	0.8	0.8	0.8
EBL	0.5	0.5	0.5	0.5
Total	2.5	2.5	2.5	2.5


Read the
summary/
conclusion

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How to read a science poster in the absence of one of the authors



If you want to know more, read the rest of the poster

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