



# Attendance

IACHEC year	Location	Number of participants	Number of talks
2006	Iceland	36	26
2007	California	35	30
2008	Germany	36	26
2009	Massachusetts	35	34
2010	Italy	45	50
2011	California	44	38
2012	UK	40	29

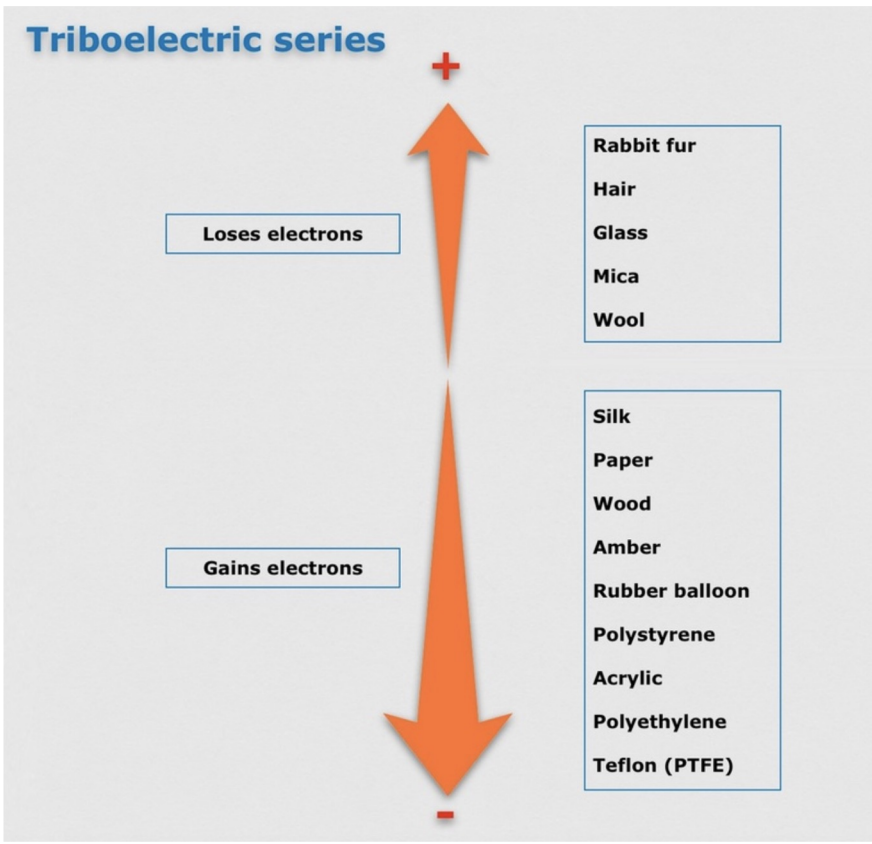
IACHEC year	Location	Number of participants	Number of talks
2013	Virginia	42	48 (20)
2014	PRC	51	54 (24)
2018	Italy	57 + 37 students	45 (30)
2019	Japan	65	70 (36)
2020, 2x2021, 2022	Virtual	4 x meetings, 50-70 participants each	16, 12, 15, 30
2023	Germany	60	63 (44)

# Paper status

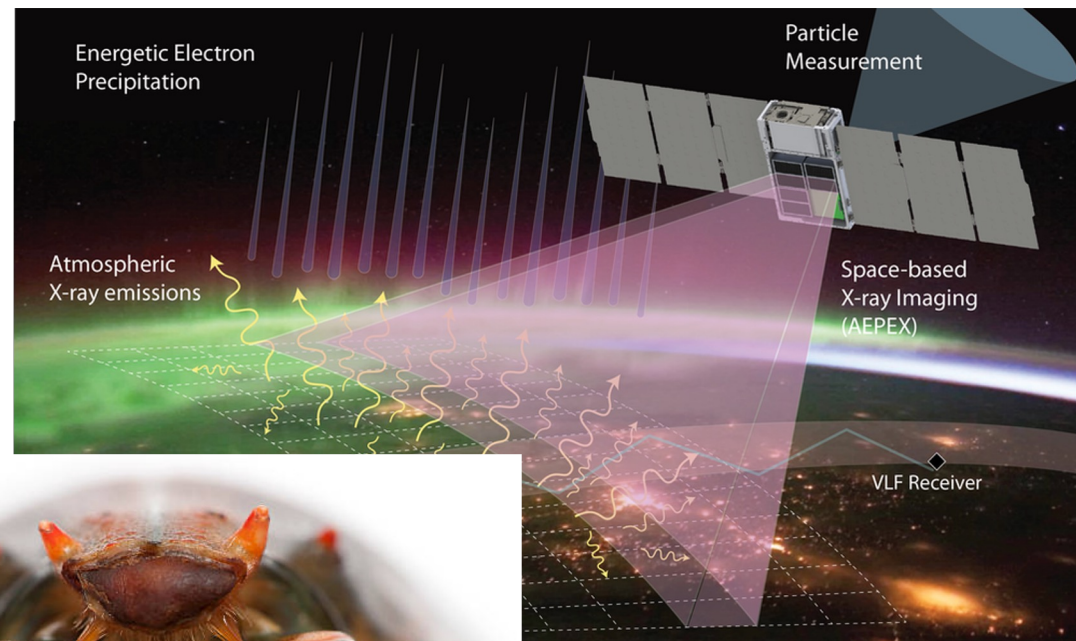
Paper	WG shepherd	Status
C/X blazar sample	??	submitted (?) Michael Smith (?)
Crab	Non-thermal	On overleaf; mature draft; include data up to 2020
N132D	Thermal	Data analysis almost done; need to identify a lead
3c273	Coordinated	Data analysis underway; may include XRISM
Contamination	Contamination	Overleaf outline circulated
MMS	Galaxy Clusters	Data review/collection
G21.5-0.9	Non-thermal	plan kickoff meeting
RXJ1856-3754 + WD	WD & INS	Make overleaf outline and circulate
Crab Timing	Timing	under consideration (likely)
Crab phase-resolved	??	under consideration
Background	Detector & Background	under consideration; discuss next meeting
PSR B1509-58 (INTEGRAL,+)	Non-Thermal	under consideration

# What did we (I) learn

## Triboelectric



## Precipitating Electrons

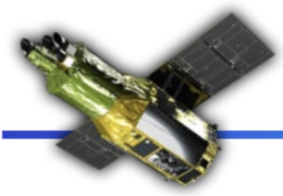


All about Lobsters

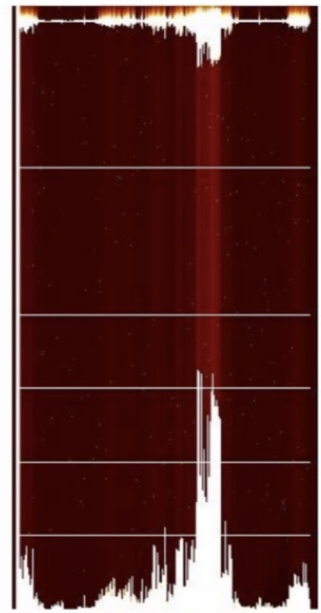
# The New Kids On the Block



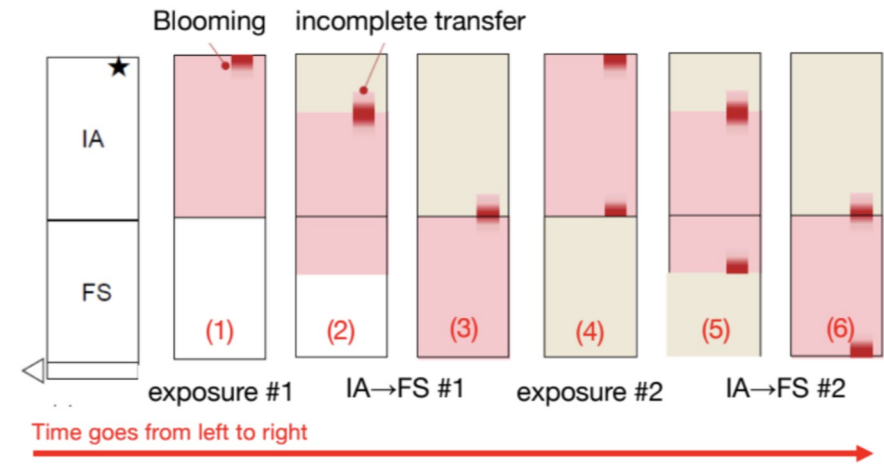
# 911 IACHEC: EXTEND "bloom"



## Where the charge comes from



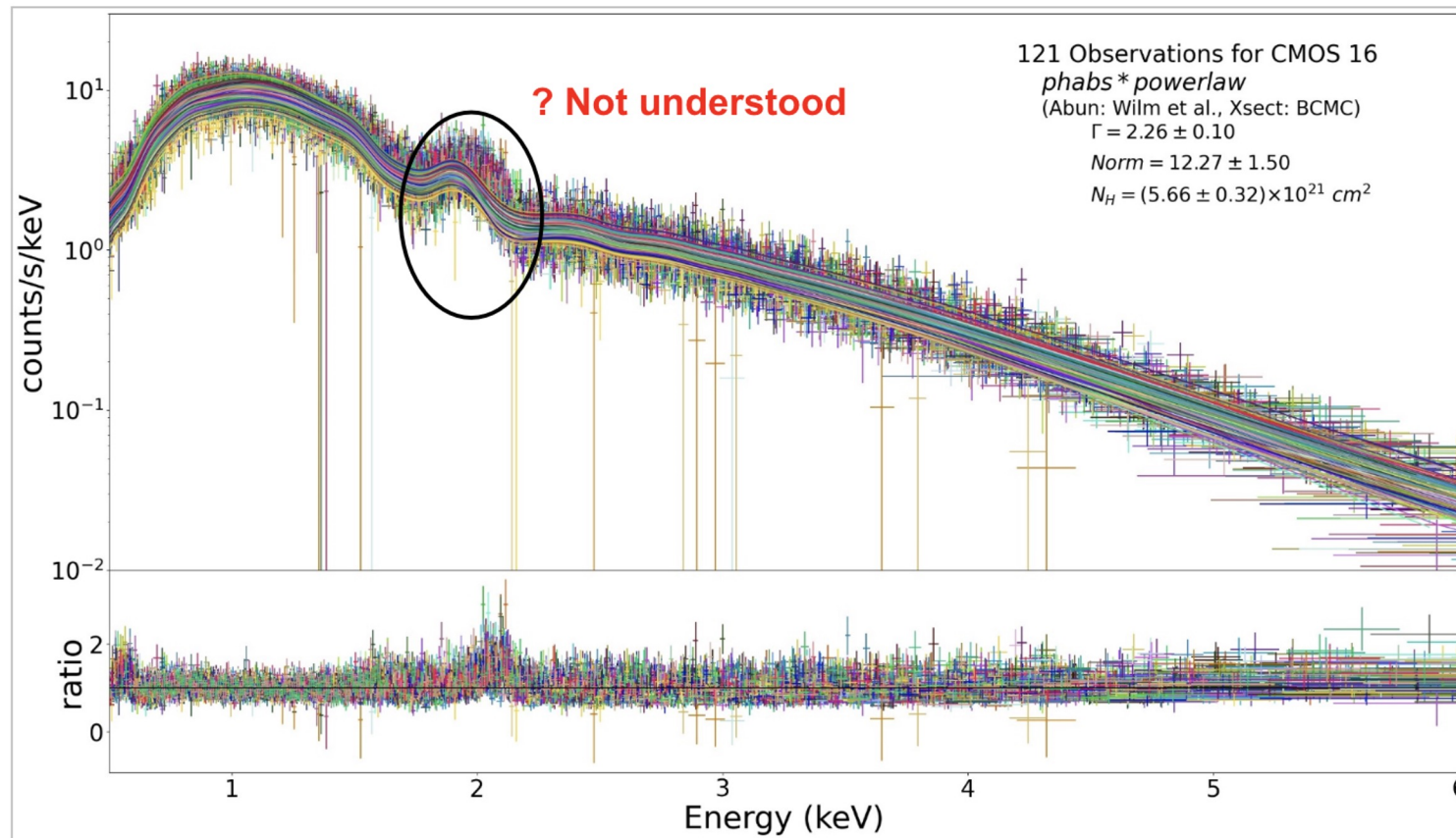
rframe data of CCD2AB



- Although anomalous charge regions are seen at the top and bottom of the imaging area (IA), anomalous charges come from the upper area of the top of the IA
  - During an exposure, blooming occurs at the top of the IA (1)
  - Such a large amount of charge can not be fully transferred, resulting in trailing charges that are left behind in the IA (2,3)
  - The left-behind charges are transferred to the frame store (FS) region and read out in the next frame (4,5,6)

# 911 IACHEC: LEIA 2 keV bump

## Effective area: Crab



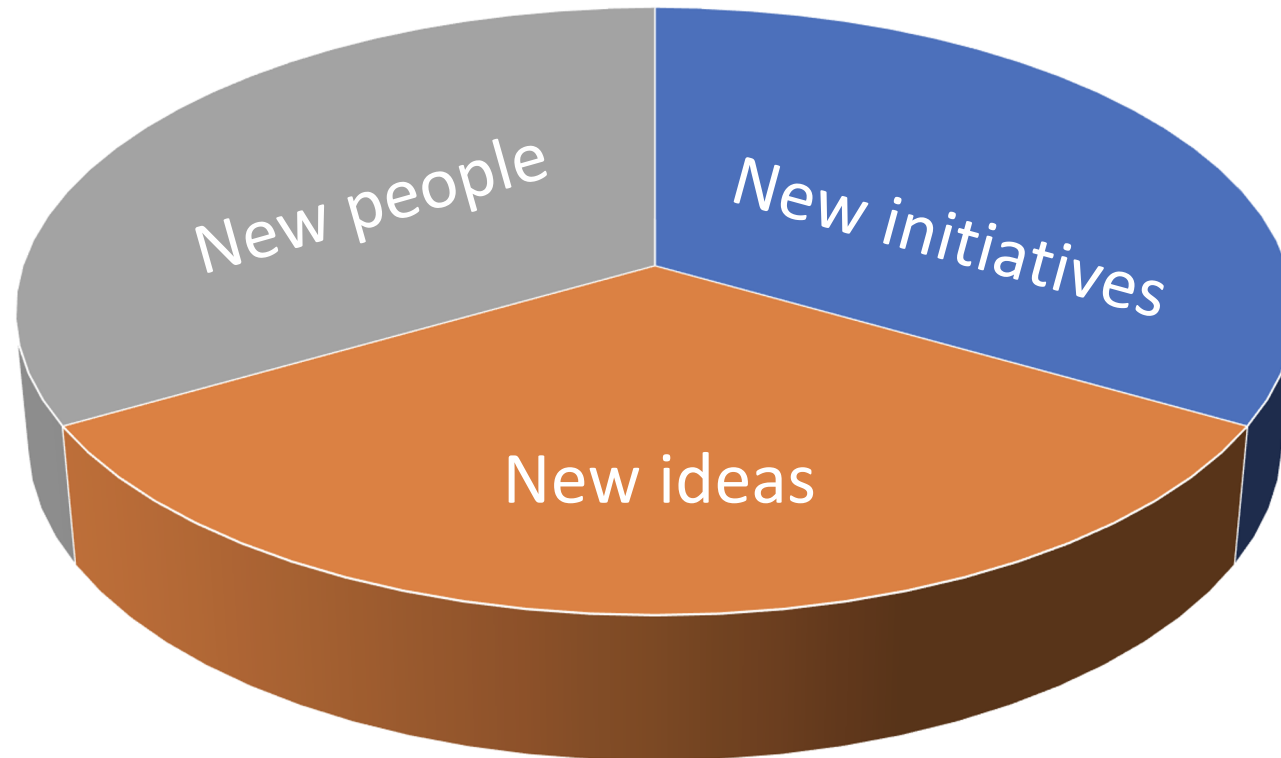
Si-edge details

# After the meeting

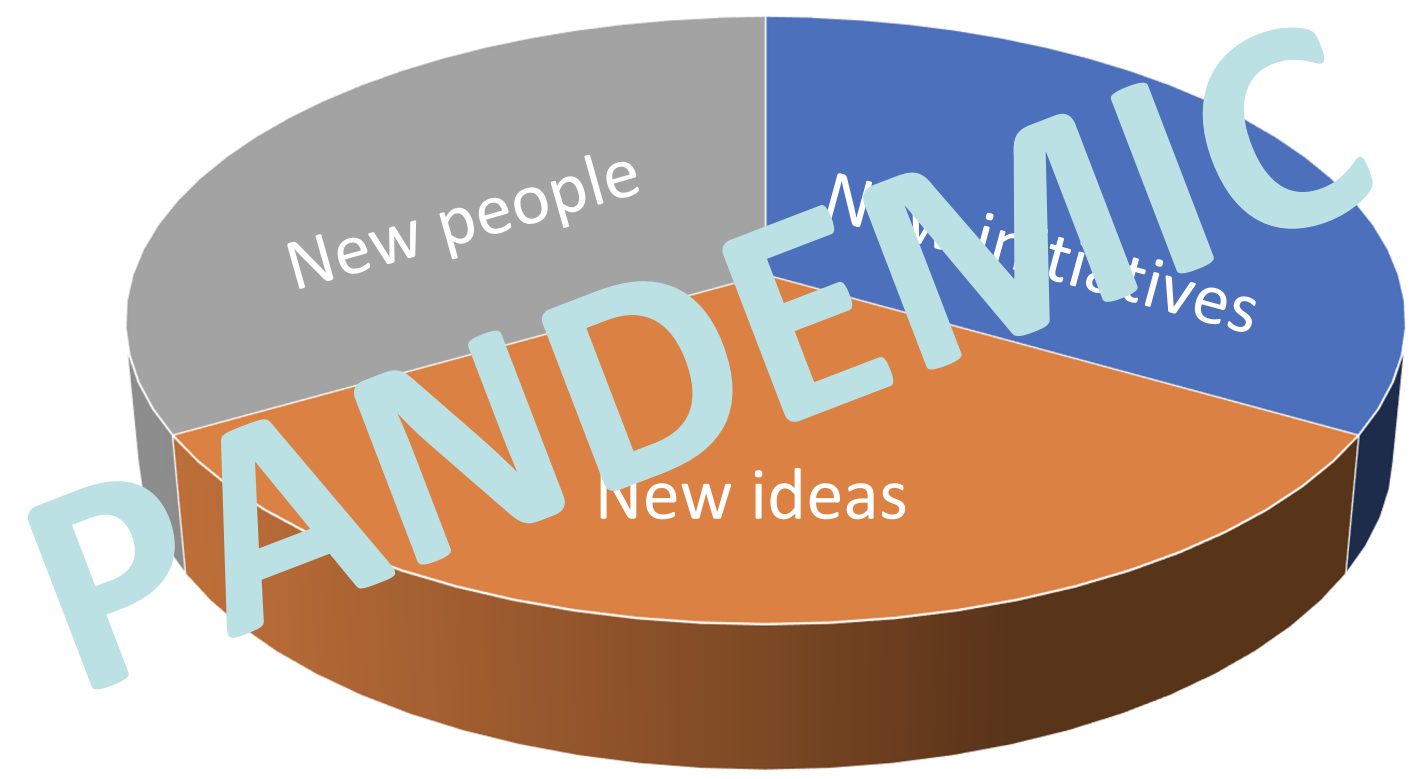




# 2019 - How to ensure progress and rejuvenation

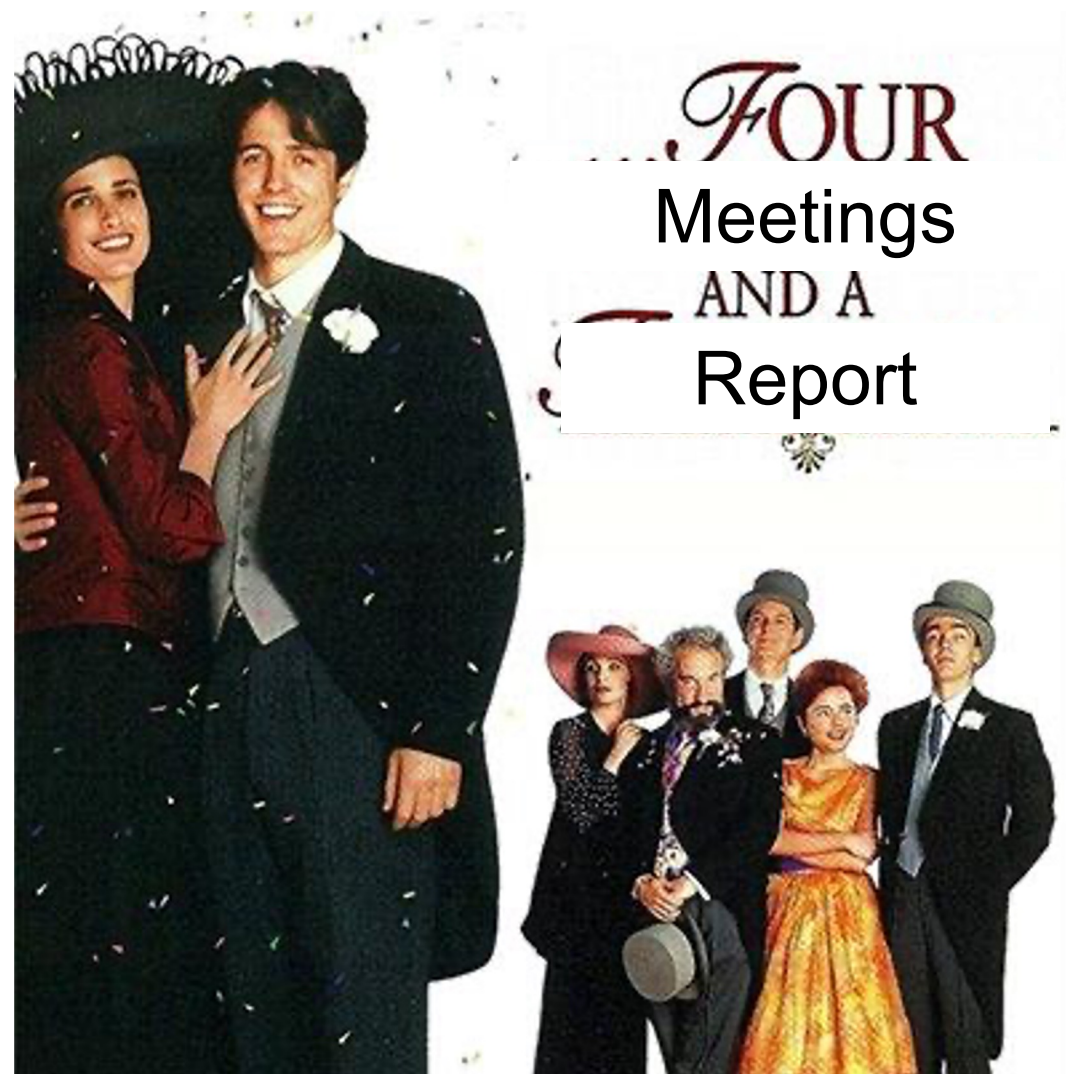


# 2019 - How to ensure progress and rejuvenation



# 4 virtual meetings + 1 report

- 2020 IACHEC Online Symposium
  - November 23-24, 9am – 12pm
  - Well announced, 70 attendees
- 2021 Virtual Spring Meeting
  - May 17-19, 10am – 12pm
  - 40-50 attendees
- 2021 Virtual Fall Meeting
  - November 8-19, 9am – 11am
  - 40-50 attendees
- 2022 Spring Virtual Workshop
  - May 23-25th, 9:00 am - 12:00 EDT
  - Well announced, 70+ attendees



# Initiatives

Initiatives - 2019	Status - 2023
Communications group (started 2018) Increase exposure to the science community Increase feed back from the science community	Closed again
Optics calibration special session in 15 <sup>th</sup> meeting – to become a WG?	Didn't happen
Spread the cross-calibration vision through ASTRO2020 decadal WP	Submitted WP
Apply for ADAP and APRA funding for specific cross-calibration tasks	Has anyone tried this?
Pursue HEASARC involvement	they are onboard – just little has happened
Reusable calibration workflows	What was this??
Restructure the IACHEC webpage	webpage renewed for 3 years
Growing workshop attendance -> restructure workshop meeting Increase working group time Introduce poster options Optionally tag on an additional day just for “work”	Do we want to grow? Did increase it slightly Not needed this time Option: a break period and longer Thursday

# IACHEC procedures - 2019

- Setting yearly goals
- Pursue the yearly goals in timely fashion
  - WG management
  - Deputy chairs?
- Write IACHEC report early!
- Inform community of progress
- Feedback from community
  - Involve members

## HERDING CATS:

“A futile attempt to control that which is inherently uncontrollable.”



# Slow progress



# Slow progress



# IACHEC workshop: Keeping the oral tradition alive



- Share stories
- Share experiences
- Pass on the stories to the next 'generation'

These are things that will not be captured by:

- Reports
- Papers
- Databases





# Initiatives - 2023

Initiatives - 2023	Action
Optics calibration special session in 15 <sup>th</sup> meeting – to become a WG?	Evaluate if we should form a WG
Apply for ADAP and APRA funding for specific cross-calibration tasks	
Pursue HEASARC involvement	Talk to Keith Arnaud and Mike Corcoran
Restructure the IACHEC webpage	renewed for 3 years
Create ‘current activities’ on the Webpage with easy access to IACHEC products	Started
Advance papers	WG chair delegate tasks to members
WIKI maintenance	Eric Miller to report
Growing workshop attendance -> restructure workshop meeting Increase working group time Introduce poster options Optionally tag on an additional day just for “work”	Do it now!

# Meeting feedback

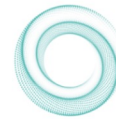
- Longer breaks vs more talks
- Half day off in the middle with full day Thursday
- Fewer talks -> posters?
  - Many folks require to have a 'contribution' in order to attend a meeting
- What would YOU like?

## Special Thanks to

Vadim, Birgit, Lorenzo (AHEAD), and JSPS



### Sponsors



AHEAD 2020



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# JSPS

# IACHEC 2024

95% Confidence

