



Collaboration Committee Updates



Spokespeople and Executive Team

Julian Borrill & John Carlstrom
Co-Spokespeople

Collaboration Update

There are 394 Members

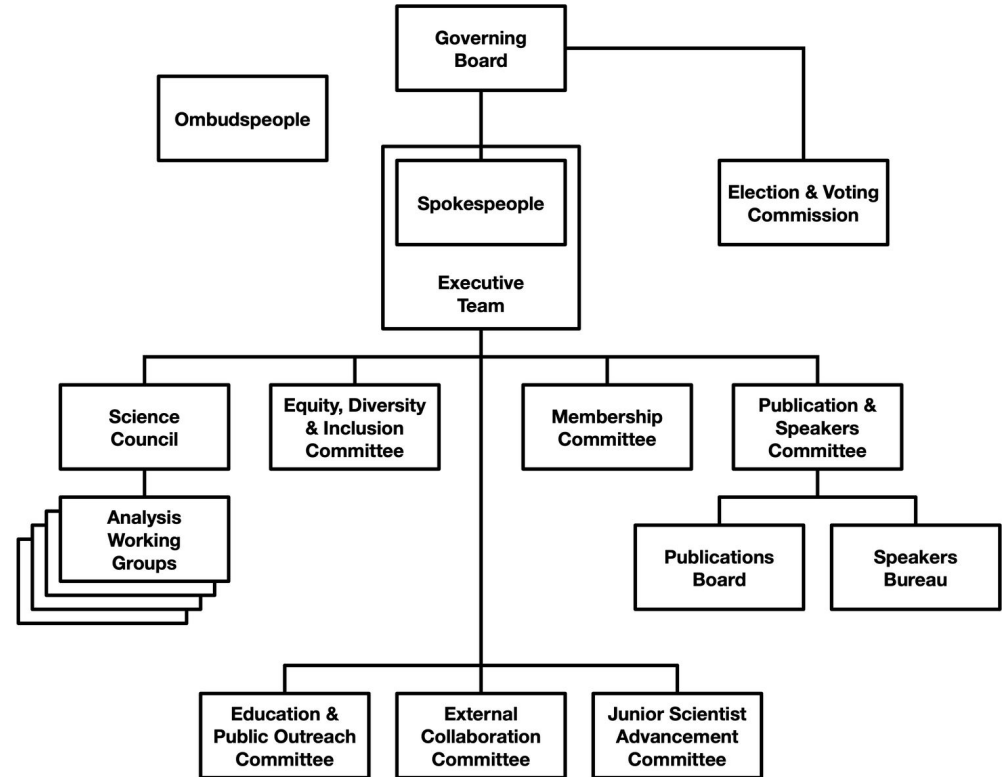
- 330 Collaboration
- 121 Project

spanning

- 19 countries
- 26 US States
- 114 Institutions

132 collaboration roles are held by 83 individuals (see [governance wiki page](#))

Many thanks to those who served, are serving, those that have run for election, and the many that volunteered for cmts!



Executive Team Role

- The Executive Team (ET) is responsible for the day-to-day running of the collaboration.
- Its standing members are ex officio
 - Spokespeople
 - Chairs of the Science and Technical Councils
 - Chairs of the Publication & Speakers, Membership Committees
- The spokespeople can also appoint up to 2 additional members
 - Chair of the ad hoc Equity, Diversity & Inclusion Committee
- The ET meets with the chairs of each of the other committees quarterly
 - Education & Public Outreach; External Collaborations; Junior Scientist Advancement

Your Current Executive Team



Julian Borrill & John Carlstrom
Co-spokespeople



Abby Crites, Chair
Pubs & Speakers
Committee



John Ruh, Chair
Membership
Committee



Sara Simon, Chair
EDI Committee



Kevin Huffenberger & Joel Meyers
Science Council Co-chairs



Jeff McMahon & Abby Viereg
Technical Council Co-chairs

Executive Team Changes This Year

- Spokespeople were continued for an extra year to meet COVID & Astro2020 challenges.
- Convened an *ad hoc* EDI Committee and added its chair to the ET.
- Prepared to transition Technical Council chairs off the ET, with bylaws change reflecting Technical Council activity migrating to the project.
- Proposed bylaws amendments to codify structural changes.

Transitioning ET Membership

Role	Until June 30th	From July 1st
Spokespeople	Julian Borrill John Carlstrom	Kevin Huffenberger Jeff McMahon
Science Council	Kevin Huffenberger Joel Meyers	Colin Bischoff Joel Meyers
Technical Council	Jeff McMahon Abby Vieregg	N/A
Membership	John Ruhl	Sarah Shandera
Publication & Speakers	Abby Crites	TBE
Equity, Diversity, Inclusion	Sara Simon	Sara Simon + TBD



Year in Review

- NSF MSRI-1 Mid-term Status Review held May 18-19, 2021
 - Review panel charged to assess path to Preliminary Design Review for NSF scope
 - Overall assessment:
 - “... team is excellent and includes many leaders in this scientific field...”*
 - “The science goals and requirements are well established”*
 - “Technical requirements and the system design are well matched to the science requirements and designs are well advanced”*
 - “... team is on a credible path to deliver a draft Preliminary Project Execution Plan and proposal for review...”*

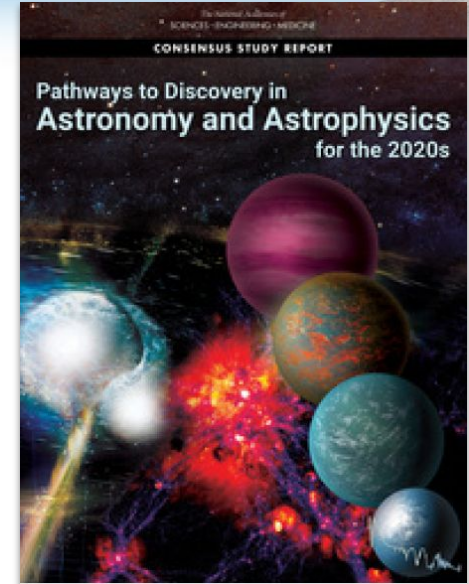
Year in Review (cont)

- [13th Collaboration Workshop](#) held August 9-13, 2021
 - Summer Science focused meeting to engaged the broader community
427 registered participants: 214 collaboration & project team members & 213 friends
134 institutions in 23 countries
- [1st CMB-S4 Summer School](#) Aug 16-18, 2021
 - Diverse group of 84 students
 - Focused on the analysis of data from CMB experiments and cross-correlation with optical data sets
- Astro2020 released Nov 4, 2021
 - Resounding endorsement of CMB-S4
 - Many thanks to everyone for help with the [Decadal Survey Report](#), the [Astro2020 APC White Paper](#), the response to the Astro2020 RFI, and the many follow-up questions.

Astro2020

Astro2020: “Recommendation: The National Science Foundation and the Department of Energy should jointly pursue the design and implementation of the next generation ground-based cosmic microwave background experiment (CMB-S4).”

Astro2020 is the final key recommendation, following those in the 2014 P5 report *Building for Discovery* and the 2015 NAS report *A Strategic Vision for NSF Investments in Antarctic and Southern Ocean Research* and its recent mid-term assessment.



Year in Review (cont)

- Director's Project Status Review November 16-19, 2021
 - Review to assess the science flowdown, conceptual design, technical progress, and quality of the cost and schedule estimates, in advance of a DOE Office of Project Assessment Review that was to be held on February 15-18, 2022.
 - It was a thorough review and the panel made many helpful suggestions and recommendations for the project to achieve CD-1 and NSF PDR on ~ 1 year timescale.
 - Overall assessment:
"The review committee congratulates the project on the impressive progress made in the past year, especially in light of the limited funds available; and for the strong endorsement from the 2020 Decadal Survey. The science-driven technical design has advanced to or beyond the conceptual stage for most of the project and the management structure, documentation and planning is also very advanced for this stage. R&D has progressed well to support the design and understanding and mitigation of technical risks; and the management team is strong and experienced."

Year in Review (cont)

- Completed full draft of the Preliminary Baseline Design Report (PBDR)
 - 282 pages, 88 figures, 361 references
 - Completed in time for the DOE Office of Project Assessment Review panel
- DOE Office of Project Assessment Review *postponed*
 - Issue discussed in Project Director's talk this morning; focus is now on analysis of alternatives
- NSF briefing requested by AST Division Director Feb 2, 2022
 - 2 hour presentation to NSF management and DOE representatives on CMB-S4 science, technology and site readiness, data archiving and public access plan, project management, cost, risks, and schedule
 - Well received! The AST DD was especially enthusiastic about the science. Questions were raised about South Pole logistic support.

Year in review (cont)

- Snowmass2021 input
 - Submitted two dedicated CMB-S4 Snowmass papers,
 - *Snowmass 2021 CMB-S4 White Paper*, arXiv:2203.08024
 - *Dark Matter Physics from the CMB-S4 Experiment*, Dvorkin et al., arXiv:2203.07064
 - Additional CMB related Snowmass White Papers (all cross referenced):
 - *Inflation: Theory and Observations*, arXiv:2203.08128
 - *Cosmic Frontier Cosmic Microwave Background Measurements White Paper*, Chang et al., arXiv:2203.07638
 - *Data-Driven Cosmology*, Cyr-Racine et al., arXiv:2203.07946
 - *Synergy between Cosmological and Laboratory Searches in Neutrino Physics*, Gerbino et al., arXiv:2203.07377
 - *The Physics of Light Relics*, Dvorkin et al., arXiv:2203.07943
 - *Enabling Flagship Dark Energy Experiments to Reach their Full Potential*, Newman et al., arXiv:2204.01992
- Plus many more activities over the year, including EPO and JSAC events; see the following Committee updates

Looking Forward

- Snowmass & P5
 - We need to make the case that CMB-S4 is part of the core Cosmic Frontier Program; it's science case is even stronger now than it was at Snowmass 2013
 - Topic of Friday's Snowmass workshop session
 - Need strong CMB-S4 participation at July 17-26 Snowmass Seattle meeting
- Supporting Analysis of Alternatives
 - Science Council Analysis Working groups, especially the Low-ell BB AWG, needed to support the analysis and to fully vet results.
- Project/Collaboration Interfaces
 - Ensure Project/Collaboration are well integrated as ET membership and structure changes
- International In-kind contributions, Membership, Representation
 - Need to develop effective “buy-in” and representation for int'l members tied to contributions to project, including both WBS items and project-enabling effort



Science Council

Kevin Huffenberger & Joel Meyers

Committee Membership

Clusters



Jim Bartlett
(APC - U. of Paris)



Srinu Raghunathan
(Illinois)

Low- l BB



Colin Bischoff
(Cincinnati)
New co-chair



Kimmy Wu
(SLAC)

Maps to C_l



Marilena LoVerde
(Washington)



Christian Reichardt
(Melbourne)

Maps to Other Statistics



Marcelo Alvarez
(Berkeley)



Blake Sherwin
(Cambridge)

Sources and Transients



Anna Ho
(Berkeley)



Joaquin Vieira
(Illinois)

Co-Chairs



Kevin Huffenberger
(Florida State)
Going elsewhere



Joel Meyers
(SMU)
Returning co-chair

Science Council

Charge: Help to produce a coherent plan for advancing the science goals of the Collaboration and work to carry it out.

Membership: Leads of the Analysis Working Groups (appointed by Spokespersons) + 2 elected co-chairs.

Other Duties:

- Approves the projects that lead to publications ([procedure](#) from Pub Board)
- Responsible for maintaining a list of Key Science topics

Science Council - Recent Activities

- Contributions and revisions to Preliminary Baseline Design Report ([link](#))
 - See discussion during Thursday afternoon session
- Draft List of Key Science Topics ([link](#))
 - See discussion during Thursday afternoon session
- Engagement with Snowmass 2022 process ([link](#))
 - See discussion during Friday morning session
- Standard Plots GitHub ([link](#))
 - Useful for future documents and reviews

Science Council - Upcoming Activities

- Finalize Preliminary Baseline Design Report
- Prepare for upcoming Agency Reviews
- Coordinate analysis of Data Challenge simulations
- Science Book, Second Edition



Membership Committee

John Ruhl

(MC Chair)

Committee



Jamie Bock



Aurelien Fraisse



Christian Reichardt



John Ruhl



Sarah Shandera
(New Chair)



Maria Salatino
(Applications Czar)
CMB-S4 Collaboration Meeting, May 9-13, 2022



Ben Westbrook

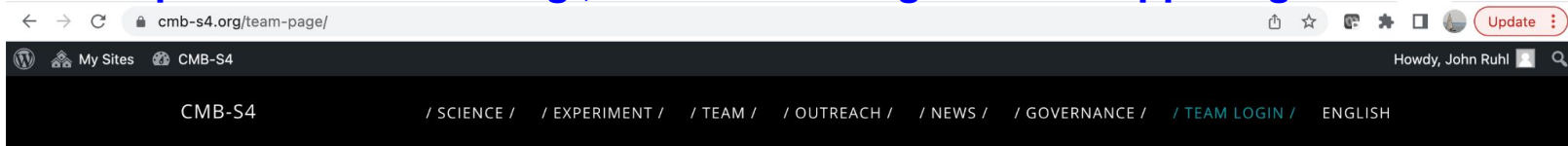
MC Overview

Our Jobs:

- Process and review applications for membership (or change in membership status), then make recommendations to the GB.
- Formulate, process, and review annual activity reports.
- Review membership policies, make recommendations to GB for changes in those.

Membership record: you can edit yours!

Go to <https://www.cmb-s4.org> , click "Team Login" in the upper right.



Private: team page

Welcome to the CMB-S4 team page.

For new members, there is an orientation page [here](#).

The CMB-S4 suite of online services includes the website, membership database, mailing lists, calendar, google drive, confluence, indico, slack, zoom, github, DocDB and more. Most of these services are accessed through our single sign-on (SSO); more details on each of them are [here](#).

To subscribe to mailing lists, simply select the desired lists in your membership record.

SSO-enabled links:

- [Your membership record](#) including editable preferred name and usage and working group memberships to change any non-editable field, please email admin@cmb-s4.org
- [Your google groups](#) (filter on cmb-s4.org)
- [The CMB-S4 google drive](#) for collaborative document development
- [DocDB](#) for archival document control

Your membership record

people.cmb-s4.org/selfservice/

Update

CMB-S4 Member Self-Service Editor

If any of the non-editable fields below are incorrect, or if your organization is not listed in the drop-down boxes, please send an email to admin@cmb-s4.org

If you have a preferred first name that you would like to use for some purposes, please enter it in the Preferred Name field and indicate where it should be used.

Last Name:	Ruhl
Legal First Name:	John
Preferred First Name:	<input type="text"/>
Check to use your preferred name for:	
Personal Communications	<input type="checkbox"/>
Meeting Name Tag	<input type="checkbox"/>
Private Documents	<input type="checkbox"/>
Public Documents	<input type="checkbox"/>
Publications	<input type="checkbox"/>

Courtesy of the EDI committee, you can add a "preferred first name" and specify when it should be used.

Also: change your institution, manage working group membership, etc.

Your membership record

Login address:	<input type="text" value="jer23@case.edu"/>
Email address:	<input type="text" value="ruhl@case.edu"/>
Github Username:	<input type="text" value="JohnRuhl"/>
Membership (Senior, Postdoc, Student, Legacy):	Senior
Qualifier:	Full
Supervisor:	
Join Date:	03/19/18
Current Status Date:	03/19/18
Primary Institution:	<input type="text" value="Case Western Reserve University"/>
Secondary Institution:	<input type="text"/>

Also, change your

- email address
- github acct
- institution
- Working group memberships (not shown)

Your institution: please add department/division options, to make author-list-making easier!

<https://docs.google.com/spreadsheets/d/1ElyxwSQK8VatyDrRG7iFERKSdln3geqpx2ifPSSJ5kU/>

The screenshot shows a Google Sheets spreadsheet with the following data:

	B	C	D	
1	Organization	Administrative Unit (the Division, Department, Center, Laboratory, etc where you work)	Administrative Unit (the Division, Department, Center, Laboratory, etc where you work)	Administrative Unit (the Division, Depart
39	Brookhaven National Laboratory	Department of Physics	Instrumentation Division	
40	Brown University	Department of Physics		
41	California Institute of Technology	Division of Physics, Mathematics and Astronomy		
42	Cardiff University	School of Physics and Astronomy		
43	Case Western Reserve University	Department of Physics		
44	Center for Astrophysics Harvard & Smithsonian	Optical and Infrared Astronomy Division		
45	Centre National de la Recherche Scientifique (CNRS)	Laboratoire Astroparticule & Cosmologie (APC)	Laboratoire de Physique des 2 Infinis Irène Joliot-Curie (IJClab)	Centre de Physique c
46	Columbia	Department of Physics	Department of Astronomy	
47	Commissariat à l'Énergie Atomique et aux Énergies Alternatives (CEA)	Laboratoire Astroparticule & Cosmologie (APC)		
48	Consejo Superior de Investigaciones Científicas (CSIC)	Instituto de Física de Cantabria (IFCA)		
49	Cornell University	Department of Astronomy	Department of Physics	
50	Dartmouth College	Department of Physics and Astronomy		
51	European Southern Observatory	Directorate for Science		
52	Fermi National Accelerator Laboratory	Particle Physics Division	Astrophysics Department	
53	Flatiron Institute	Center for Computational Astrophysics		
54	Florida State University	Department of Physics		
55	Harvard University	Department of Physics	Center for Astrophysics Harvard & Smithsonian	
56	High Energy Accelerator Research Organization (KEK)	Institute of Particle and Nuclear Studies (IPNS)	International Center for Quantum-field Measurement Systems for Studies of the Universe and Particles (QUP)	

...stitutions for papers (with thanks to those who provided input).

MC - Activity Reports

New cadence for Activity Reports

- Now scheduled for fall, to match timing of academic job transitions

Transitions from "provisional" to "regular" member status.

- Members enter as "provisional" unless they already have a long, strong history of engagement with the collaboration.
- Provisional status is meant to be temporary, "typically a year".
- Annual activity reports are expected to be the main mechanism for driving such a transition; the committee has also entertained proposals for transitions at other times.

MC - Potential issues for consideration

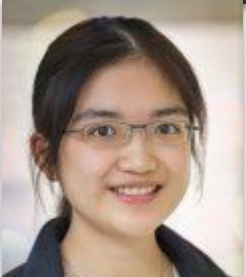
- **Can we streamline the application review process?**
 - Currently has delays waiting for MC meeting, waiting for GB meeting, as well as information gathering.
- **Should we formalize broader collaboration input to application process?**
 - Example: Currently the MC tries to judge applications mostly on the application and the MC members' expertise. Should we consider always requiring input from relevant AWG and/or technical groups?



Publication & Speakers Committee

Abby Crites

Publication Board



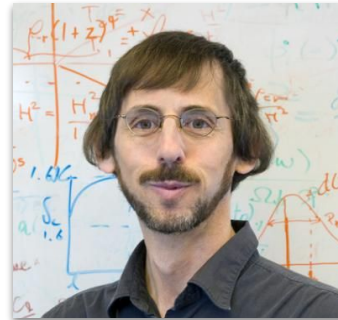
- Carlo Baccigalupi
- Clarence Chang
- Francis-Yan Cyr-Racine
- Martina Gerbino
- Patty Ho
- Kirit Karkare
- Bruce Partridge
- Nathan Whitehorn

Updates

- Summary of project proposal procedure
 - The procedure for proposing a project is detailed in section 9.3 of the collaboration bylaws and summarized here. Any collaboration member can propose a project to an Analysis or Technical Working Group. The Working Group will develop the proposal for submission to the Science Council. The current latex template for project submission is available at: <https://github.com/CMB-S4/publications-speakers-documents>
 - The main steps in the proposal phase are:
 - Develop proposal with the appropriate working group.
 - Submit the proposal to the Science Council chairs, with a copy to the Publication Board.
 - WG chairs make a Collaboration-wide announcement of paper, 2 week proposal comment period.
 - Science Council considers approval of the proposal.
 - If approved, commence work on project/paper.
 - The main steps in the review phase are:
 - Inform Publication Board when paper is ready for review.
 - Board forms review sub-committee, 3 week review comment period.
 - Publication Board considers internal review report.
 - If approved, submit for publication.
- Future work: outlining contributions to collaboration papers

Speakers Bureau

- Adam Anderson
- François Bouchet
- Eric Linder
- Johanna Nagy



Giving Talks about CMB-S4

- Meetings of Interest
 - Please add conferences you are aware of to:
<https://cmb-s4.atlassian.net/wiki/spaces/XC/pages/406159479/Meetings+Of+Interest>
- Procedure for getting talks approved:
 - We encourage members to give talks on behalf of the collaboration. The talks policy applies to all workshops, meetings, colloquia, public lectures, and seminars. The rules are governed by section 9.6 of the bylaws. The main requirements are:
 - The Speakers Bureau need not be informed of talks on other subjects that contain brief advertisements for CMB-S4.
 - For talks substantially about CMB-S4, the Speakers Bureau <sb@cmb-s4.org> should be informed, and the request will be recorded on the Speakers bureau talks list. In the approval process, the Speakers Bureau will balance competing requests and consider the match between topic and expertise, career status, seniority, and issues of fairness.
 - It is collegial to discuss prospective talks inside the working groups to keep people informed.



Equity, Diversity & Inclusion Committee

Sara Simon

Committee Membership



Sara Simon
she/her
chair
FNAL



Shawn
Henderson
he/him
SLAC



Felipe
Menanteau
he/him
UIUC



Lloyd Knox
he/him
UC Davis



Tom Crawford
he/him
KICP



Marco
Raveri
he/him
U. Penn

Mailing list and meetings are open, so feel free to join!

Recent Updates

- Committee formalized in bylaws
- Developed our [charge and responsibilities](#)
- Literature Review: [Team-Up](#), [LGBT+ inclusivity in Physics and Astronomy](#), [APS Gender Equity](#)
 - Collected potential recommendations and best practices
 - Sent a short list of quick to implement recommendations to Spokespeople and ET
- Developing a long-term strategy for EDI in the collaboration
 - Define our collaboration values and vision
 - Use our collaboration values to develop and prioritize recommendations
- Collaboration Values session today to define and prioritize collaboration values → We want your input, so encourage you to attend (breakout rooms)



Education & Public Outreach Committee

Colin Bischoff

Committee Membership



Juliet Crowell
EPO Coordinator



Colin Bischoff



Sara Simon



Felipe Maldonado



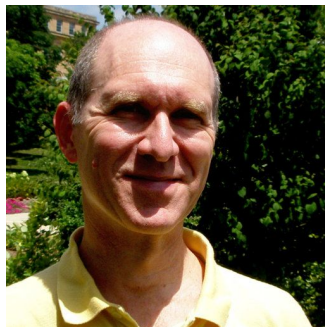
Tom Crawford



Kasey Wagoner



Lloyd Knox



Peter Timbie



Ben Saliwanchik



Nick Galitzki

Recent Activities

- Saturday Science Series; April 9, 16, 23, 30; organized by Felipe Maldonado and Juliet Crowell.
 - Third iteration of this successful program that teaches cosmology to a motivated audience of high school students. ~60 students completed all four sessions this spring.
 - 17 different CMB-S4 members have participated.
 - Developing new ideas to support the SSS cohorts, build connections, and encourage diverse students to study physics and astronomy.
 - Tuesday EPO session will feature Ellen Bechtol, outreach specialist with IceCube, who will discuss their strategies for reaching high school audiences.
 - Wednesday evening public event: STEM career panel. Will give students an opportunity to hear about a wide variety of careers that physics/astronomy PhDs have gone into.
- Developing repository of outreach materials for use by collaboration members, including hands-on activities and demos.
- Upcoming STEAM summer camp for girls organized by Juliet Crowell and Geneva Lake Astrophysics and STEAM (GLAS).
- More details in the Tuesday EPO session.



External Collaboration Committee

Lloyd Knox

Committee Membership



Rachel Bean
Cornell



Simone Ferraro
LBNL



Lloyd Knox (chair)
UC Davis

Recent Work

- Together with the ET we created a charge for our committee
- It includes a process for initiating ECC-led creation of documents to support external collaboration.
 - Call comes from the Science Council once they establish the scientific need for the external collaboration
- We are drafting an MoU with LiteBird
 - LiteBird expressed interest in joint analysis of simulated data
 - Science Council is interested in joint simulations for foreground cleaning and de-lensing forecasts. They requested we work on this.
 - We are using a DESI/ACT MoU as a model
 - MoU is an umbrella one that sets a process for creation of joint projects
 - Assembled the CMB-S4 team to do this: ECC + Susan Clark and Marcelo Alvarez
 - A LiteBird team is in place
 - We have just made contact with them
 - Establishing this external collaboration, our first, will serve as a case study



Junior Scientist Advancement Committee

Darcy Barron

Committee Membership

- Chair: Darcy Barron
- Vice-chair: Martin White
- Current members: Lindsey Bleem, Evan Grohs, Karthik Prabhu, Sara Simon, Radek Stompor

Membership is open to volunteers from the Collaboration.

All members are eligible to serve on this committee, and we would like to include a balance of junior, mid-career, and senior people.

The chair and vice chair are appointed by the Spokespeople and serve two-year terms.

Recent events

- Spring 2022
 - Pre-Meeting last Friday ([link to slides and recordings](#))
 - Panel on Snowmass process
 - Panel on Astro2020 Decadal report
- Fall 2021
 - Career advice (one-on-one pairings of junior job seekers with senior members)
 - Event with Science Council on how to get involved in CMB-S4 science
 - Recordings posted here:
https://drive.google.com/drive/folders/1v9MQQ_GnOclKn8Xn1Gz9E6RNYyxdndQP
- Summer 2021 Meeting
 - Junior Talks Session
 - Junior members closed session
 - Career/networking event

Ongoing work

- Helping plan events at collaboration meetings
- Figuring out the list of 'regular' events to support junior members

- **Junior members** - give feedback using this form:
<https://docs.google.com/forms/d/e/1FAIpQLSeQHAEeGzFR3PS9acb5vb5Mc3BsgPAFrLcsZ8btJlqo5o1GmA/viewform>
 - We will leave this form open through the end of May
 - Help us plan for the summer meeting and beyond!

- **Senior members** - consider joining or helping lead this committee!

Thanks to all the volunteers!

Abigail Vieregg

Alex van Engelen

Amy Trangsrud

Ben Wandelt

Benjamin Schmitt

Bobby Besuner

Brandon Hensley

Brenna Flaughner

Brian Nord

Bruce Partridge

Christian Reichardt

Colin Bischoff

Daniel Grin

Douglas Scott

Drew Baden

Greg Tucker

Jeff McMahon

Joaquin Vieira

Joel Myers

Johanna Nagy

Julian Borrill

Juliet Crowell

Katrin Heitmann

Ken Ganga

Kevin Huffenberger

Kimmy Wu

Kirit Karkare

Lindsey Bleem

Marc Kamionkowski

Marcelo Alvarez

Marilena Loverde

Martina Gerbino

Matt Dobbs

Phil Mauskopf

Salman Habib

Sara Simon

Shannon Duff

Shaul Hanany

Srini Raghunathan

Steven Kahn

Susan Clark

Tahlia Demaio

Zigmund Kermish

Apologies to any names I missed!