2024 Summer Collaboration Meeting

Report of Contributions

Contribution ID: **32**

Type: **not specified**

Welcome to NCSA

Wednesday, 31 July 2024 09:00 (10 minutes)

Presenter: Prof. VIEIRA, Joaquin

Session Classification: Plenary

Contribution ID: **33**　　　　　　　　　　　　　　　　Type: **not specified**

Meeting Goals

Wednesday, 31 July 2024 09:10 (15 minutes)

Presenter:　MCMAHON, Jeff (University of Chicago; FNAL)

Session Classification:　Plenary

Contribution ID: **34**   Type: **not specified**

CMB-S4 Science Program

Wednesday, 31 July 2024 09:55 (30 minutes)

This block will feature a short overview talk of the new CMB-S4 science book chapters and several short presentations highlighting new science cases developed since the last edition of the science book.

Session Classification: Plenary

Contribution ID: **35** Type: **not specified**

Project Report- Status and Path Forward

Wednesday, 31 July 2024 09:25 (30 minutes)

Presenters: STRAIT, Jim (Lawrence Berkeley National Laboratory;); CARLSTROM, John (University of Chicago;Argonne National Laboratory)

Session Classification: Plenary

Contribution ID: **36**
Type: **not specified**

Discussion

Wednesday, 31 July 2024 10:25 (15 minutes)

Session Classification: Plenary

Contribution ID: **39**   Type: **not specified**

Advancing Science Through Inclusion

Thursday, 1 August 2024 09:45 (1 hour)

Presenter: Dr SHETH, Kartik (NASA)

Session Classification: EDI Plenary

Contribution ID: **40**   Type: **not specified**

Q&A with Dr Kartik Sheth

Thursday, 1 August 2024 10:45 (30 minutes)

Presenter: SHETH, Kartik (NASA)

Session Classification: EDI Plenary

Contribution ID: **41**
Type: **not specified**

Atacama Cosmology Telescope

Wednesday, 31 July 2024 11:15 (17 minutes)

Session Classification: Plenary

Contribution ID: **42** Type: **not specified**

South Pole Telescope

Wednesday, 31 July 2024 11:32 (17 minutes)

Presenter: RAGHUNATHAN, Srinivasan (NCSA)

Session Classification: Plenary

Contribution ID: **43**   Type: **not specified**

Cosmology Large Angular Scale Surveyor (CLASS)

Wednesday, 31 July 2024 11:49 (17 minutes)

Presenter: MARRIAGE, Tobias (Johns Hopkins University)

Session Classification: Plenary

Contribution ID: 44 Type: **not specified**

BICEP / Keck

Wednesday, 31 July 2024 12:06 (17 minutes)

Session Classification: Plenary

Contribution ID: 45   Type: **not specified**

Simons Observatory

Wednesday, 31 July 2024 12:23 (17 minutes)

Session Classification: Plenary

Contribution ID: **46** Type: **not specified**

LiteBIRD

Wednesday, 31 July 2024 14:00 (17 minutes)

Session Classification: Plenary

Contribution ID: 47 Type: **not specified**

Future Satellite Missions

Wednesday, 31 July 2024 14:17 (17 minutes)

Presenter: LAWRENCE, Charles (JPL)

Session Classification: Plenary

Contribution ID: 48   Type: **not specified**

Overview [John Carlstrom]

Wednesday, 31 July 2024 15:55 (10 minutes)

- Strategy
- Update from AoA Study for Alt 3 from July revision
- Overview of plan for tomorrow's parallel sessions

Presenter: CARLSTROM, John (University of Chicago;Argonne National Laboratory)

Session Classification: Plenary

Contribution ID: 49   Type: **not specified**

SAT & LAT Designs and Considerations [John Ruhl]

Wednesday, 31 July 2024 16:05 (15 minutes)

- Overview of "aggressive" SAT optical design
- List of potential SAT systematics and studies to address them
- LAT design choices, pros and cons
- Plan for and Items to work on at tomorrow's parallel session

Presenter: RUHL, John (Case Western Reserve University)

Session Classification: Plenary

Contribution ID: **50**

Type: **not specified**

Efficacy of rotating 1/2 wave plates in Chile [tbc]

Wednesday, 31 July 2024 16:20 (10 minutes)

- Lessons from prior deployments
- Simons Observatory Design and experience to date
- Items for tomorrow's parallel session #1

Session Classification: Plenary

Contribution ID: **51**   Type: **not specified**

Efficacy of Variable-delay Polarization Modulator in Chile [Toby Marriage]

Wednesday, 31 July 2024 16:30 (10 minutes)

- Overview
- Lessons learned from CLASS
- Potential for CMB-S4, other methods?

Presenter: MARRIAGE, Tobias (Johns Hopkins University)

Session Classification: Plenary

Contribution ID: **52**   Type: **not specified**

Temperature and Polarization Anisotropy of the Atmosphere [Anna Coerver]

Wednesday, 31 July 2024 16:40 (15 minutes)

- Characterization and mitigation strategies
- Site comparisons

Presenter: COERVER, Anna (UC Berkeley)

Session Classification: Plenary

Contribution ID: **53**

Type: **not specified**

Chile r-forecasting: Foregrounds models [Susan Clark and Brandon Hensley]

Wednesday, 31 July 2024 16:55 (10 minutes)

- Review of the three foreground models

Presenters: HENSLEY, Brandon (Princeton University); CLARK, Susan (Stanford University)

Session Classification: Plenary

Contribution ID: **54**   Type: **not specified**

Chile r forecasting: Sky area selection and scan strategy [Sara Simon]

Wednesday, 31 July 2024 17:05 (10 minutes)

- CMB-S4 plans; SO plans; Overlap with BICEP/Keck

Presenter: Dr SIMON, Sara (Fermilab)

Session Classification: Plenary

Contribution ID: 55   Type: **not specified**

Chile r-forecasting: Delensing and map based validation [tbc]

Wednesday, 31 July 2024 17:15 (10 minutes)

- Delensing forecasts; map validation; freq band allocation

Session Classification: Plenary

Contribution ID: **56**   Type: **not specified**

Chile r-forecasting: r-forecasting and map based validation [Colin Bischoff]

Wednesday, 31 July 2024 17:25 (15 minutes)

- Overview of methodologies, current results
- Work needed
- Plan for tomorrow's r-forecasting parallel session

Presenter: Prof. BISCHOFF, Colin (University of Cincinnati)

Session Classification: Plenary

Contribution ID: **57**   Type: **not specified**

Chile r forecasting: How to improve & validate r-forecasts [Conveners tbc]

Thursday, 1 August 2024 11:45 (45 minutes)

- De-lensing validation
- Map based validation
- Optimizing band allocation on SATs and delensing LATs
- Inclusion of potential systematics

Session Classification: Breakouts

Contribution ID: **58**   Type: **not specified**

Chile SAT Design and Considerations [Conveners: John Kovac and Jeff McMahon]

Thursday, 1 August 2024 13:30 (1 hour)

- Beating the Systematics
-   – Potential SAT systematics and studies to address them
- Beating the atmosphere
-   – atmospheric"sky"noise mitigation
-   – polarized atmosphere mitigation impact on design, site studies

Presenters: MCMAHON, Jeff (University of Chicago; FNAL);   KOVAC, John (Harvard University;Center for Astrophysics | Harvard & Smithsonian)

Session Classification: Breakouts

Contribution ID: **59**   Type: **not specified**

Discussion / Follow-up from previous breakouts [Conveners: John Ruhl / John Carlstrom]

Friday, 2 August 2024 10:00 (1 hour)

- Plans for next steps

Presenters: CARLSTROM, John (University of Chicago;Argonne National Laboratory); RUHL, John (Case Western Reserve University)

Session Classification: Breakouts

Contribution ID: **60**   Type: **not specified**

Q&A with DOE Program Managers Kathy Turner and Bryan Field

Friday, 2 August 2024 11:00 (30 minutes)

Dr. Turner and Dr. Field have agreed to a Q&A session to answer questions regarding funding/career opportunities in DOE/DOE labs in light of the recent developments with CMB-S4. We especially want to make sure junior collaboration member voices are heard. Live Q&A will be open to all audience members, but if you'd like to ask your question in advance, please enter it in this google form.

Session Classification: Plenary