

**Minutes of the Meeting of the  
Astronomy and Astrophysics Advisory Committee  
23 October 2017 Teleconference  
National Science Foundation, Arlington, VA**

<b>Members attending:</b>	Dieter Hartmann	Shane Larson
	Buell Jannuzi (Chair)	Rachel Mandelbaum (Vice Chair)
	Kelsey Johnson	John O'Meara
	Brian Keating	Constance Rockosi
	Eliza Kempton	Martin White
<b>Agency personnel:</b>	Chris Davis, NSF-AST (Acting Recording Secretary)	Rita Sambruna, NASA
	Ralph Gaume, NSF-AST (Acting Designated Federal Official)	Kathy Turner, DOE
	James Ulvestad, NSF-MPS OAD	Eric Linder, DOE
	Diana Phan, NSF-AST	Stephanie Short, NSF-OPP
	Richard Barvainis, NSF-AST	Brad Keister, NSF-PHY
	Jean Cottam, NSF-PHY	Alexandra Isern, NSF-OPP
	Vladimir Papatashvili, NSF-OPP	Jim Whitmore, NSF-PHY
	Kelly Falkner, NSF-OPP	Denise Caldwell, NSF-PHY
<b>Others:</b>	Charles Lawrence, JPL	Reba Badayopadhyay, U of Florida
	Julian Borrill, LBNL/NERSC	Ashlee Wilkins, AAS
	John Carlstrom, U. Chicago	Steve Padin, U. Chicago
	Mark Devlin, U. Penn	Clem Pryke, U. Minnesota
	Raphael Flauger, UT Austin	Ed Wollack, GSFC
	Kent Irwin, Stanford/SLAC	Thomas Quayle
	John Kovac, Harvard	Tyler Micheletti

**MEETING CONVENED 3:00 PM EDT, 23 OCTOBER 2017**

**Welcome and Committee Business**

The Chair, Buell Jannuzi, called the meeting to order. Introductions were made.

The minutes from last month's AAAC meeting have not been completed and were therefore not discussed or approved. Approval will be sought at the committee's next face-to-face meeting on January 25-26, 2018.

Christopher Davis, standing in for Elizabeth Pentecost as AAAC Recording Secretary, emailed the members during the meeting, asking them to send any new conflicts to him. None were received.

The Committee was given the opportunity to provide questions to the Chair of the Task Force a week before the telecon. The AAAC requested that a modification be made to the report regarding the merit vs. cost of a possible portion of the proposed survey with a table to explain this. The Task Force made these modifications to the report.

## **CMB Stage 4 Report**

The subject of today's meeting was to discuss the Cosmic Microwave Background-Stage 4 (CMB-S4) Concept Definition Task Force Report to the AAAC, dated 16 October 2017. The chair began discussions by thanking Charles Lawrence, the Chair of the Task Force, the Task Force members (listed in the report), and the extended CMB-S4 collaboration/community for their hard work in putting the report together.

Charles presented a summary of the Task Force's findings that included a description of the three main science goals: testing theories of inflation, probing the thermal history of our universe, and providing a legacy survey of nearly half the sky at cm/mm wavelengths. In its report, the Task Force recognizes the importance of simulations informing instrumentation and experimental requirements. The presentation included an outline of the experiment the task force feels is needed. A conservative straw person concept consisting of two surveys, one lasting four years, the other seven years, conducted from two sites – South Pole and Atacama, was briefly discussed. A cost model is presented in the report which captures all aspects of the experiment. The report emphasizes a single experiment and single collaboration of experts.

The Chair opened the floor to questions. None were heard.

The Chair asked for a motion to accept the report. All AAAC members in attendance responded in favor of approving the report.

Minor changes to the report were discussed. These will be made and a slightly updated report submitted to the agencies for their consideration. The report will also be posted on the AAC website.

The Chair then closed the meeting.

## **Other Business**

None tabled.

**MEETING ADJOURNED AT 3:40 PM EDT, 23 OCTOBER 2017**