B mode from Space – Part 1: The Science goals, status of spaceborne projects, foregrounds (Dec 10 -12), Part 2: Mission design, technologies and challenges for the spaceborne observations (Dec 14 -16) –

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Cryogenic Readout Electronics Kam Arnold (Wisc)

Wednesday 16 December 2015 11:50 (20 minutes)

will present the baseline architecture for all of the electrical components between the LiteBIRD detector wafers and the warm readout electronics. This baseline architecture is based on the requirements of the frequency domain multiplexing bolometer readout, which will be discussed by Professor Dobbs in the previous presentation. I will discuss the requirements that still need to be determined for these components, and the design decisions that these requirements still need to inform. I will discuss the POLARBEAR / Simons Array experience, and where I think the most significant component modification will be necessary from the hardware used in those instruments. This will lead into the discussion of SQUID requirements and design, which will be the topic of the following presentation by Professor Irwin.

Presenter: Dr ARNOLD, Kam (Wisconsin)

Session Classification: Detector