

Abstract Submitted  
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**CMB-S4 Instrumentation** CLARENCE CHANG, Argonne Natl Lab,  
CMB-S4 COLLABORATION COLLABORATION — CMB-S4 is a major focus of  
the ground based CMB community. Three key science goals driving the technical  
requirements for CMB-S4 are: 1) searching for primordial gravitational waves result-  
ing from an early period of accelerated expansion (inflation), 2) searching for new  
light relic particles in the early universe, and 3) providing a legacy survey of nearly  
half the sky at centimeter to millimeter wavelengths. Crossing critical thresholds for  
these science topics requires fielding the largest proposed payload of superconduct-  
ing detectors on multiple telescopes across different sites. I will provide an overview  
of the CMB-S4 instrumentation plan with particular focus on its superconducting  
detector technology.

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