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Figure 1: example0

# 1 Executive Summary (1 pg)

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see Fig. 1

see Fig. 2

see Fig. 3



Figure 2: example

## 2 PICO in Brief (2 pages)



Figure 3: example

## 3 Science (22 pgs)

### 3.1 Fundamental Physics

blah



Figure 4: example

### 3.2 Extragalactic Science

blah



Figure 5: example

#### 3.3 Galactic Science

blah



Figure 6: example

### 3.4 Legacy Science



Figure 7: example

### 3.5 Foregrounds

blah



Figure 8: example

### 3.6 Systematic Errors

blah



Figure 9: example

# 4 Instrument Implementation (10 pgs)



Figure 10: example

## 5 Mission Implementation (5 pgs)

blah



Figure 11: example

# 6 Technology Development (4 pgs)

blah



Figure 12: example

## **7 Cost** (**6 pgs**)



Figure 13: example

#### References

**ACS** attitude control system

**ADC** analog-to-digital converters

**ADS** attitude determination software

AHWP achromatic half-wave plate

**AMC** Advanced Motion Controls

ARC anti-reflection coatings

**ATA** advanced technology attachment

**BRC** bolometer readout crates

**BLAST** Balloon-borne Large-Aperture Submillimeter Telescope

**CANbus** controller area network bus

CIB cosmic infrared background

CMB cosmic microwave background

**CMM** coordinate measurement machine

**CSBF** Columbia Scientific Balloon Facility

**CCD** charge coupled device

**DAC** digital-to-analog converters

**DASI** Degree Angular Scale Interferometer

**dGPS** differential global positioning system

**DfMUX** digital frequency domain multiplexer

**DLFOV** diffraction limited field of view

**DSP** digital signal processing

**EBEX** E and B Experiment

**EBEX2013** EBEX2013

**ELIS** EBEX low inductance striplines

ETC EBEX test cryostat

**FDM** frequency domain multiplexing

**FPGA** field programmable gate array

FCP flight control program

**FOV** field of view

FWHM full width half maximum

**GPS** global positioning system

HDPE high density polyethylene

**HIM** high index materials

**HWP** half-wave plate

IA integrated attitude

**IP** instrumental polarization

JSON JavaScript Object Notation

**LDB** long duration balloon

**LED** light emitting diode

**LCS** liquid cooling system

LC inductor and capacitor

**LZH** Lazer Zentrum Hannover

MCP multi-color pixel

MSM millimeter and sub-millimeter

MLR multilayer reflective

MAXIMA Millimeter Anisotropy eXperiment IMaging Array

NASA National Aeronautics and Space Administration

**NDF** neutral density filter

**PCB** printed circuit board

PE polyethylene

PME polarization modulation efficiency

**PSF** point spread function

**PV** pressure vessel

**PWM** pulse width modulation

RMS root mean square

**SLR** single layer reflective

**SMB** superconducting magnetic bearing

SQUID superconducting quantum interference device

SQL structured query language

STARS star tracking attitude reconstruction software

**SWS** sub-wavelength structures

**TES** transition edge sensor

TDRSS tracking and data relay satellites

**TM** transformation matrix

UHMWPE ultra high molecular weight polyethylene

UMN University of Minnesota