



Name: Warren Holmes

Affiliation: Jet Propulsion Laboratory

Position: Supervisor, Superconducting Devices and Materials Group, Planck Scientist, Planck High Frequency Instrument Detector Engineer

Previous Positions: Supervisor, Cryogenic Instruments Group, Cryogenic Engineer for various instruments, including the Background Limited Infrared and Submillimeter Spectrometer (BLISS)

Education: PhD, Low Temperature Physics, UC Berkeley, Advisor, P.L. Richards 1998

Research Interests/Areas of Expertise: Development of Detectors for Astrophysics and Remote Sensing Applications and Design and Development of Cryogenic Instruments

Publications: >35 Publications in refereed journals and 15 publications in conference proceedings.

1. W. Holmes, J Bock, A.E. Lange et al, "Initial Test Results on Bolometers for the Planck High Frequency Instrument," Appl. Opt., **47**, 5996, (2008)
2. Bradford CM, Kenyon M, Holmes W, Bock J, Koch T. Sensitive far-IR survey spectroscopy: BLISS for SPICA. Proceeding of SPIE, vol. 7020; 2008. p.702010. doi:10.1117/12.790156.
3. S.T.P. Boyd, R.V. Duncan, W.A. Holmes, "A massive bolometer on the international space station to measure energy deposition by the space radiation environment," Nuclear Instruments & Methods in Physics Research, Section A, **520**, 167 (2004).
4. T.C.P. Chui, W. Holmes, and K. Penanen, "Fluctuations of the Phase Difference across an Array of Josephson Junctions in Superfluid ^4He near the Lambda Transition", Phys. Rev. Lett, **90**, (2003).
5. S.F. Lee, J.M. Gildemeister, W. Holmes, A.T. Lee, and P.L. Richards, "A Voltage-Biased Superconducting Transition-Edge Bolometer with Strong Electrothermal Feedback Operated at 370mK," Appl. Opt. **37**, 3391 (1998).
6. W. Holmes J.M. Gildemeister, V. Kotsubo and P.L. Richards, "Thermal Transport in Low Stress Silicon Nitride," Appl. Phys. Lett. **72**, 2250 (1998).

Approximate Number of Years in Applied Superconductivity: 20

Awards:

- Multiple JPL Performance Awards

Service to Related Conferences:

- Co-chair, Space Cryogenic Workshop 2003.