**William F. Kindel**

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## Education

**University of Colorado**, Boulder, Colorado
Ph.D., Physics, December 2015
Dissertation:
"Generation and Efficient Measurement of Single Photons using Superconducting Circuits"
Advisor: Dr. Konrad Lehnert
M.S., Physics, May 2012

**Ohio State University**, Columbus, Ohio
B.S., Engineering Physics, magna cum laude, June 2007

## Appointments

**University of Colorado School of Medicine**, Aurora, Colorado
*Postdoctoral Fellow*, June 2016 - Present

**JILA, National Institute of Standards and Technology and University of Colorado**, Boulder, Colorado
*Post-Doctoral Researcher,* January 2016- May 2016
*Graduate Research Assistant,* January 2010- December 2015
Advisor: Dr. Konrad Lehnert

**University of Colorado**, Boulder, Colorado,
*Teaching Assistant,* August 2009 – May 2010
August 2007 – May 2008

**National Institute of Standards and Technology**, Boulder, Colorado,
*PREP Student Fellow*, May 2008 – December 2008
Advisor: Dr. David Pappas

**Los Alamos National Laboratory**, Los Alamos, New Mexico
*Summer Student Intern*, 2005 – 2007
Advisor: Dr. Christopher L. Rousculp

## Publications

6 "Design and operational experience of a microwave cavity axion detector for the 20- 100 μeV range." S. Al Kenany, M. A. Anil, K. M. Backes, B. M. Brubaker, S. B. Cahn, G. Carosi, Y. V. Gurevich, **W. F. Kindel**, S. K. Lamoreaux, K. W. Lehnert, S. M. Lewis, M. Malnou, D. A. Palken, N. M. Rapidis, J. R. Root, M. Simanovskaia, T. M. Shokair, I. Urdinaran, K. A. van Bibber and L. Zhong. *Nuclear Instruments and Methods in Physics Research A*. **854**, 11–24 (2017).

5 "First results from a microwave cavity axion search at 24 μeV." B. M. Brubaker, L. Zhong, Y. V. Gurevich, S. B. Cahn, S. K. Lamoreaux, M. Simanovskaia, J. R. Root, S. M. Lewis, S. Al Kenany, K. M. Backes, I. Urdinaran, N. M. Rapidis, T. M. Shokair, K. A. van Bibber, D. A. Palken, M. Malnou, **W. F. Kindel**, M. A. Anil, K. W. Lehnert, and G. Carosi. *Physical Review Letters*, **118**, 061302 (2017).

4 "Generation and efficient measurement of single photons from fixed frequency superconducting qubits," **William F. Kindel**, M. D. Schroer, K. W. Lehnert, *Phys. Rev. A*, **93**, 033817 (2016).

3 "Generating and verifying entangled itinerant microwave fields with efficient and independent measurements," H.-S. Ku, **W. F. Kindel**, F. Mallet, S. Glancy, K. D. Irwin, G. C. Hilton, L. R. Vale, K. W. Lehnert, *Phys. Rev. A*, **91**, 042305 (2015).

2 "Measuring a topological transition in an artificial spin-1/2 system," M. D. Schroer, M. H. Kolodrubetz, **W. F. Kindel**, M. Sandberg, J. Gao, M. R. Vissers, D. P. Pappas, Anatoli Polkovnikov, and K. W. Lehnert, *Physical Review Letters*, **113** , 050402 (2014).

1 "Tunable coupling to a mechanical oscillator circuit using a coherent feedback network," Joseph Kerckhoff, Reed W. Andrews, H. S. Ku, **William F. Kindel**, Katarina Cicak, Raymond W. Simmonds, and K. W. Lehnert, *Phys. Rev. X*, **3**, 021013 (2013).

## Conference presentations

6 "Predicting neural fluctuations in the primary visual cortex." Rocky Mountain Bioinformatics Conference, Snowmass, Colorado, December 9th, 2016.

5 "Efficient photon detection with a Josephson Parametric Amplifier," APS March Meeting, San Antonio, Texas, March 3rd, 2015.

4 "Photon tomography of a Josephson Parametric Amplifier," APS March Meeting, Denver, Colorado, March 5th, 2014.

3 “Generating distributable and unconditional entanglement on-chip at microwave frequencies,” APS March Meeting, Boston, Massachusetts, March 2nd, 2012.

2 “Generating on-chip distributable and unconditional entanglement at microwave frequencies,” Quantum Information Processing and Communication, Zurich, Switzerland, September 6th, 2011.

1 “Design and Calibration of an Improved Josephson Parametric Amplifier,” APS March Meeting, Dallas, Texas, March 21st, 2011.