

Shawn A. Hilbert, Ph.D.

Berry College
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Mount Berry, GA, 30149

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Professional Experience

Berry College, Mount Berry, GA

Assistant Professor of Physics

- Advisor Sigma Pi Sigma
- Advisor Society of Physics Students

August 2014 – present

March 2017 – present

August 2015 – present

Texas Lutheran University, Seguin, TX

Assistant Professor of Physics

- Department Chair
- Advisor Sigma Pi Sigma
- Advisor Society of Physics Students

August 2009 – May 2014

August 2014 – May 2014

August 2011 – May 2014

August 2011 – May 2014

University of Nebraska—Lincoln, Lincoln, NE

Visiting Research Professor

May-August 2010; May-August 2011

Education

University of Nebraska—Lincoln, Lincoln, NE

Doctor of Philosophy in Physics

May 2009

Thesis Title: *Pulse Propagation of Sound, Light, and Electrons*

University of Nebraska—Lincoln, Lincoln, NE

Master of Science in Physics

May 2007

Lebanon Valley College, Annville, PA

Bachelor of Science in Physics (minor in Mathematics)

May 2004

Professional Activities

Wakonse Fellow

Spring 2015

Attended Assessment Conference at Texas A&M University

Spring 2015

Attended Vocation of a Lutheran College (VOALC) Conference

Summer 2013

Attended AAPT New Faculty Workshop

Summer 2011

Attended N-Gen Course Redesign Workshop at Univ. of North Texas

Spring 2010

American Association of Physics Teachers Member

2009 – present

American Physical Society Member

2005 – present

Publications (Italicized names emphasize undergraduate research student advisees)

8. *William Newman, Alexandria Skinner, Shawn A. Hilbert*,
“An acoustic analog to the avoided crossing of energy levels”
American Journal of Physics, accepted July 2017
7. *Marissa D’Onofrio, Mitchell Crum, Shawn A. Hilbert*, Herman Batelaan, *Timothy Canalichio, Tyler Bull*,
“An acoustic analog for a quantum mechanical level-splitting route to band formation”
American Journal of Physics, **84**, 841 (2016).
6. **Shawn A. Hilbert**, Adam Caprez, Herman Batelaan,
“Experimental observation of time-delays associated with electric Matteucci-Pozzi phase shifts”
New Journal of Physics, **13**, 093025 (2011).
5. **Shawn A. Hilbert**, *Amanda Neukrich*, Cornelius J. G. J. Uiterwaal, Herman Batelaan,
“Exploring temporal and rate limits for laser-induced field emission”
Journal of Physics B, **42**, 141001 (2009).
4. **Shawn A. Hilbert**, Cornelius J. G. J. Uiterwaal, Brett Barwick, Herman Batelaan, Ahmed H. Zewail,
“Temporal lenses for attosecond and femtosecond electron pulses”
Proceedings to National Academy of Sciences, USA, **106**, 10558 (2009).
3. **Shawn A. Hilbert**, Brett Barwick, *Mya Fabrikant*, Cornelius J. G. J. Uiterwaal, Herman Batelaan,
“A high repetition rate time-of-flight electron energy analyzer”
Applied Physics Letters, **91**, 173506 (2007).
2. **Shawn A. Hilbert**, Herman Batelaan,
“Acoustic analog to quantum mechanical level splitting”
American Journal of Physics, **75**, 1003 (2007).
1. Scott N. Walck, James K. Glassbrenner, Matthew H. Lochman, **Shawn A. Hilbert**,
“Topology of the three-qubit space of entanglement types”
Physical Review A, **72**, 052324 (2005).

Course Experience

- Quantum Mechanics
- Quantum Mechanics II
- Modern Physics
- Optics
- Experimental Methods
- Advanced Experimental Methods
- Statistical Mechanics
- Classical Mechanics
- Advanced Classical Mechanics
- Introduction to Engineering (and labs)
- Engineering Physics (Fluid and Heat Flow)
- Algebra-Based Intro Physics (and labs)
- Calculus-Based Intro Physics (and labs)
- Introductory Electronics
- Senior Seminar

Presentations (Italicized names emphasize undergraduate research student advisees)

17. *Daniel Steinwachs, Andrew Lockhart, Alexandria Skinner, Shawn A. Hilbert,*

“A Classical Demonstration of Avoided Crossings with Springs,” poster,
American Association of Physics Teachers Winter Meeting, February 2017

16. *Alexandria Skinner, William Newman, Shawn A. Hilbert,*

“An Acoustic Analog to Avoided Crossing of Energy Levels,” poster,
American Association of Physics Teachers Winter Meeting, February 2017

15. *Parker Roberts, Alexandria Skinner, Shawn A. Hilbert, Scott Carr,*

“Band Structure for Atomic Orbital Analogs,” poster,
American Association of Physics Teachers Winter Meeting, February 2017

14. *Tadan Cobb, Daniel Steinwachs, Scott Carr, Shawn A. Hilbert,*

“Band Structure in Coupled Oscillators,” poster,
American Association of Physics Teachers Winter Meeting, February 2017

13. *Andrew Lockhart, Erin Bassett, Shawn A. Hilbert,*

“Progress Report on Exciting Non-Harmonic Resonances,” poster,
American Association of Physics Teachers Winter Meeting, February 2017

12. *Rachel Bibbey, Eric Vanderwolf, William Newman, Shawn A. Hilbert,*

“Slow Sound Via Dispersion in a Closed Tube,” poster,
American Association of Physics Teachers Winter Meeting, February 2017

11. *Mitchell Crum, Marissa D’Onofrio, Shawn A. Hilbert,*

“Acoustic Analog to Level-Splitting Route to Band Gaps,” poster,
American Association of Physics Teachers Winter Meeting, January 2016

10. *Shawn A. Hilbert, William Newman, Alexandria Skinner,*

“An Acoustic Analog to Avoided Crossing of Energy Levels,” poster,
American Association of Physics Teachers Winter Meeting, January 2016

9. *Shawn A. Hilbert,*

“Active Reading Documents in Introductory Physics,” talk,
American Association of Physics Teachers Winter Meeting, January 2015

8. *Timothy Canalichio, Tyler Bull, Shawn A. Hilbert, Herman Batelaan,*

“Acoustic Analog to Level-Splitting Route to Band Gaps,” poster,
American Association of Physics Teachers Winter Meeting, January 2013

7. *Jessica White, Shawn A. Hilbert, Herman Batelaan,*

“Femtosecond Electron Switches via Plasmonic Antennae,” talk,
Fall Meeting of the Texas Section of American Physical Society, October 2010

6. *Shawn A. Hilbert, Herman Batelaan,*

“Acoustic Analogs for Advanced Labs,” poster,
Gordon Research Conference, July 2010

5. **Shawn A. Hilbert**, Herman Batelaan,
 “Acoustic Analogs to Quantum Mechanical Level-Splitting,” talk,
 Spring Meeting of the Texas Section of American Physical Society, March 2010
4. **Shawn A. Hilbert**, *Amanda Fricke*, Cornelis Uiterwaal, Herman Batelaan
 “Femtosecond Electron Sources and Attosecond Electron Foci,” poster,
 Division of Atomic, Molecular, Optical, and Plasma Physics Meeting, May 2008
3. **Shawn A. Hilbert**, *Noah Weiss*, Herman Batelaan
 “Experimental Analog to Time-Independent Solutions to Schrödinger Equation,” poster,
 Division of Atomic, Molecular, Optical, and Plasma Physics Meeting, May 2006
2. **Shawn A. Hilbert**, Brett Barwick, Herman Batelaan,
 “Taking Stroboscopic Techniques to the Femtosecond Domain,” talk,
 Nebraska Section of American Association of Physics Teachers Meeting, March 2006
1. **Shawn A. Hilbert**, Scott Walck
 “Quantum Entanglement of Three Qubits,” poster,
 Regional Meeting of American Association of Physics Teachers, March 2004

Grant Funding

Berry College Summer Research Stipend, \$5,000	December 2016
Thornton Fellowship, \$1,250	September 2016
Berry College Travel Grant, \$1,300	September 2016
Thornton Fellowship, \$1,250	September 2015
Berry College Travel Grant, \$1,300	September 2015
Berry College Travel Grant, \$2,500	September 2014
Texas Lutheran University Equipment Grant, \$3,400	June 2013
Summer Research Grant, \$7,000	May 2013
Faculty Development Grant, \$1,200	April 2013
Faculty Research Grant, \$1,100	September 2012
Summer Research Grant, \$5,500	May 2012
Brown Endowment Recipient, \$500	August 2012
Brown Endowment Recipient, \$500	August 2011
Faculty Research Grant, \$1,200	October 2010