

## Landon Lehman

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CONTACT INFORMATION      Department of Physics  
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EDUCATION      **University of Notre Dame**, Notre Dame, IN

PhD, Physics, 2017

MS, Physics, 2015

Adviser: [Adam Martin](#)

**Purdue University**, West Lafayette, IN

BS, Physics, 2012

Minor in Mathematics

PROFESSIONAL RECORD      June 2017 to present: Clinical Assistant Professor, University at Buffalo, Buffalo, NY

August 2017 to June 2018: Physics Teacher, Chesterton Academy of Buffalo

January 2017 to May 2017: Adjunct Instructor, University at Buffalo, Buffalo, NY

COURSES TAUGHT

**PHY102 College Physics II:** A 4-credit algebra-based introductory course covering topics in electricity and magnetism, light, optics, and modern physics. Taught in Spring 2017 and Spring 2018.

**PHY101 College Physics I:** A 4-credit algebra-based introductory course covering mechanics, heat, waves, and sound. Taught in Fall 2017.

**PHY108 General Physics II:** A 4-credit calculus based introductory course covering electricity and magnetism. Currently teaching.

**PHY307 Modern Physics Lab:** A 2-credit upper-level undergraduate lab course, covering 11 experiments in modern physics, ranging from nuclear physics to semiconductors. Taught in Fall 2017 and currently teaching.

**Physics GRE Prep Course:** An experimental course that I taught in Fall 2017. It was an informal course, with the goal of preparing physics majors to perform to the best of their abilities on the Physics GRE exam.

**PHY207 General Physics III:** A 4-credit calculus-based course covering sound waves, electromagnetic waves, geometrical and wave optics, and modern physics. Taught in Spring 2018.

**PHY401 Quantum Mechanics I:** An upper level quantum mechanics course for physics majors covering wave mechanics, the formalism of quantum mechanics, angular momentum, and the hydrogen atom solution. Currently teaching.

## PUBLICATIONS

- [1] Landon Lehman. “Thermal Bandaid: A Generalization of the Molecular Zipper Model.” *European Journal of Physics*, Volume 39, Number 5, June 2018. doi: [10.1088/1361-6404/aac4da](https://doi.org/10.1088/1361-6404/aac4da)
- [2] Landon Lehman and Adam Martin. “Low-derivative operators of the Standard Model effective field theory via Hilbert series methods.” [arxiv:1510.00372](https://arxiv.org/abs/1510.00372). *Journal of High Energy Physics*, Volume 2016, Issue 2. doi: [10.1007/JHEP02\(2016\)081](https://doi.org/10.1007/JHEP02(2016)081).
- [3] Landon Lehman and Adam Martin. “Hilbert Series for Constructing Lagrangians: Expanding the phenomenologist’s toolbox.” [arxiv:1503.07537](https://arxiv.org/abs/1503.07537). *Physical Review D* **91**, 105014 (2015). doi: [10.1103/PhysRevD.91.105014](https://doi.org/10.1103/PhysRevD.91.105014).
- [4] Landon Lehman. “Extending the Standard Model Effective Field Theory with the Complete Set of Dimension-7 Operators.” [arxiv:1410.4193](https://arxiv.org/abs/1410.4193). *Physical Review D* **90**, 125023 (2014). doi: [10.1103/PhysRevD.90.125023](https://doi.org/10.1103/PhysRevD.90.125023).
- [5] Joseph Bramante, Antonio Delgado, Landon Lehman, and Adam Martin. “Boosted Higgses from chromomagnetic  $b$ ’s: BSM  $b\bar{b}h$  at high luminosity.” [arxiv:1410.3484](https://arxiv.org/abs/1410.3484). *Physical Review D* **93**, 053001 (2016). doi: [10.1103/PhysRevD.93.053001](https://doi.org/10.1103/PhysRevD.93.053001).
- [6] Joseph Bramante, Sean Downes, Landon Lehman, and Adam Martin. “Clearing the Brush: The Last Stand of Solo Small Field Inflation.” [arxiv:1405.7563](https://arxiv.org/abs/1405.7563). *Physical Review D* **90**, 023530 (2014). doi: [10.1103/PhysRevD.90.023530](https://doi.org/10.1103/PhysRevD.90.023530).
- [7] Carlos Alvarado, Landon Lehman, and Bryan Ostdeik. “Surveying the Scope of the  $SU(2)_L$  Scalar Septet Sector.” [arxiv:1404.3208](https://arxiv.org/abs/1404.3208). *Journal of High Energy Physics*, Volume 2014, Issue 5. doi: [10.1007/JHEP05\(2014\)150](https://doi.org/10.1007/JHEP05(2014)150).

## TALKS

- [1] “Taking the Measure of Effective Field Theories.” *Physics Seminar*, University at Buffalo, The State University of New York, March 1, 2016.
- [2] “Generating functions for EFT operators.” *APS Prairie Section Fall Meeting 2015*, University of Notre Dame, November 21, 2015.
- [3] “Generating functions for EFT operators.” *Composite Higgs Program*, Fermilab (Fermi National Accelerator Laboratory), October 28, 2015.
- [4] “Hilbert Series for Constructing Lagrangians.” *Phenomenology 2015 Symposium*, University of Pittsburgh, May 4, 2015.
- [5] “Surveying the Scope of the  $SU(2)_L$  Scalar Septet Sector.” *2014 Spring GPS Conference*, University of Notre Dame Department of Physics, April 28, 2014.

## SOFTWARE

### SKILLS

- R
- Mathematica
- Matlab
- Vim
- $\text{\TeX}$  ( $\text{\LaTeX}$ ,  $\text{\BibTeX}$ , Beamer)
- Microsoft Office, Google Docs

## AWARDS

### University of Notre Dame

- Arthur J. Schmitt Leadership Fellowship in Science and Engineering
- Society of Schmitt Fellows website