

## Luís Alexandre Meira Fernandes Alves Pereira

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- Research interests**
- Algebraic topology. Homotopy theory. Operads. Koszul duality of operads. Goodwillie Calculus. Equivariant homotopy theory. Equivariant operads. Equivariant dendroidal sets.
- Education**
- Ph.D. in Mathematics 2013  
Massachusetts Institute of Technology  
Thesis title: Goodwillie calculus and algebras over a spectral operad  
Advisor: Mark Behrens
  - Mestrado em Matemática Aplicada e Computação 2008  
Instituto Superior Técnico  
Advisor: Rui Loja Fernandes
  - Licenciatura em Matemática Aplicada e Computação 2006  
Instituto Superior Técnico
- Positions**
- Mary Ann Pitts Postdoctoral Fellow Fall 2013-Spring 2017  
University of Virginia
  - Visiting Assistant Professor Fall 2017-Spring 2018  
University of Notre Dame
- Publications**
- *Equivariant dendroidal sets*  
<https://arxiv.org/abs/1702.08119>  
(53 pages; to appear in *Algebraic & Geometric Topology*)
  - *Operad bimodules and composition products on André-Quillen filtrations of algebras* (joint with Nick Kuhn)  
*Algebraic & Geometric Topology*, vol.17(2), 2017, pp.1105-1130
  - *Cofibrancy of operadic constructions in positive symmetric spectra*  
*Homology, Homotopy and Applications*, vol.13(2), 2016, pp.133-168
- Submitted**
- *Genuine equivariant operads* (joint with Peter Bonventre)  
<https://arxiv.org/abs/1707.02226>  
(83 pages; submitted to *Advances in Mathematics*)
- Preprints**
- *Graph stable equivalences and operadic constructions in equivariant spectra* (joint with Markus Hausmann)  
<http://faculty.esc.nd.edu/lpereira/research.html>
  - *Filtrations of colored operadic constructions and excisiveness of truncated operadic functors*  
<http://faculty.esc.nd.edu/lpereira/research.html>
  - *Goodwillie calculus in algebras over a spectral operad*  
<http://faculty.esc.nd.edu/lpereira/research.html>
  - *A general context for Goodwillie Calculus*  
<https://arxiv.org/abs/1301.2832>

## Research Talks

- *Genuine equivariant operads*  
Fall 2017 at University of Kentucky
- *Genuine equivariant operads*  
Summer 2017 at University of Illinois at Urbana-Champaign
- *A (equivariant) tree description of (genuine equivariant) operads*  
Spring 2017 at University of Virginia
- *Genuine equivariant operads*  
Spring 2017 at University of Louisiana
- *Genuine equivariant operads*  
Fall 2016 at University of Notre Dame
- *Genuine equivariant operads*  
Fall 2016 at University of Virginia
- *$N_\infty$ -operads and equivariant trees*  
Spring 2016 at Johns Hopkins University
- *$N_\infty$ -operads and equivariant trees*  
Spring 2016 at University of Virginia
- *Cofibrancy of operadic constructions in spectra*  
Fall 2014 at University of Virginia
- *Goodwillie Calculus in algebras over a spectral operad*  
Fall 2014 at Ohio State University
- *Goodwillie Calculus in algebras over a spectral operad*  
Fall 2014 at University of Virginia
- *Goodwillie Calculus in algebras over a spectral operad*  
Spring 2013 at Massachusetts Institute of Technology
- *Goodwillie Calculus in algebras over a spectral operad*  
Fall 2012 at University of Chicago

## Teaching Experience

- Calculus A Fall 2017
- Math 1320 Spring 2017  
*Calculus II*
- Math 1310 Fall 2016  
*Calculus I*
- Math 8850 Spring 2016  
*Topics in Algebraic Topology*
- Math 3351 Spring 2015, Fall 2015  
*Linear Algebra*
- Math 3100 Spring 2014, Fall 2014, Spring 2015, Summer 2015, Fall 2015  
*Introduction to Probability Theory*
- Math 2310 Fall 2013  
*Multivariable Calculus*

## Advisory experience

- part of the Ph.D. Thesis Dissertation Committee for Peter Bonventre  
Spring 2017 at University of Virginia

**Community  
service**

- organized the Topology Seminar  
Fall 2017 at University of Notre Dame
- administered an RGT grant  
Fall 2017 at University of Notre Dame

**Schools and  
focused periods**

- MIT Talbot Workshop on *Calculus of Functors*  
Garden City, UT

Spring 2012