MICHAEL LAMBERT

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Personal Site: https://michaeljlambert.github.io/

EMPLOYMENT

University of Massachusetts-Boston — *Sept. 2020-ongoing*
Associate Lecturer of Mathematics

Topos Institute — *June-Aug. 2022*
Research Associate

Mount Allison University — *Sept. 2021-April 2022*
Postdoctoral Research Associate

Dalhousie University — *Sept. 2014-Oct. 2019*
Graduate Student

University of Missouri-Columbia — *Aug. 2011-May 2014*
Graduate Student Instructor

EDUCATION

Dalhousie University — *2014-2019*
PhD Mathematics
Supervisor: Dorette Pronk
Thesis: "An Elementary Account of Flat 2-Functors"

University of Missouri-Columbia — *2011-2014*
MA Mathematics
Supervisor: Calin Chindris

University of Vermont — *2009-2011*
MS Mathematics
Supervisor: Richard Foote

Dartmouth College — *2004-2007*
BA English Literature, Philosophy

COURSES TAUGHT

As Instructor
Math 134: Calculus for Management, University of Massachusetts-Boston
Math 129: Precalculus for Management, University of Massachusetts-Boston
Math 141: Calculus II, University of Massachusetts-Boston
Math 2002: Intermediate Calculus II, Dalhousie University
Math 1100: College Algebra, University of Missouri-Columbia

As Teaching Assistant
Math 1000: Calculus I, Dalhousie University
Math 1010: Calculus II, Dalhousie University
Math 1290: Engineering Mathematics II, Dalhousie University,
Math 1280: Engineering Mathematics I, Dalhousie University
Math 1500: Calculus I, University of Missouri-Columbia

PAPERS AND PREPRINTS

- "Double Categories of Relations"
  To appear in *Theory and Applications of Categories*
  2021 Draft
  older arXiv preprint: arxiv.org/abs/2107.07621

- "Discrete Double Fibrations"
  Theory and Applications of Categories, 37(22), 2021.

- "Double Fibrations" with Geoff Cruttwell, Dorette Pronk, and Martin Szyld
  Submitted to *Theory and Applications of Categories*
  2022 Preprint: arxiv.org/2205.15240

- "A Topos View of Blockchain Consensus Protocols"
  Submitted to *Compositionality*
  2021 preprint: arxiv.org/abs/2111.07461

- "Discrete 2-Fibrations"
  Submitted to *Higher Structures*
  2020 preprint: arxiv.org/abs/2001.11477

- "Representation Embeddings of Cartesian Theories"
  Submitted to *Applied Categorical Structures*
  2019 preprint: arxiv.org/abs/1612.02497

  Other Preprints:

- "A 2-Site for Continuous 2-Group Actions"
  2019 preprint: arxiv.org/abs/1911.05141

- "Computing Weighted Pseudo-Colimits"
  2019 preprint: arxiv.org/abs/1711.05903

- "An Elementary Account of Flat 2-Functors"
  2019 Dalhousie University PhD Thesis
  DalSpace Link: dalspace.library.dal.ca/handle/10222/75671

- "Undecidability of the Theory of $k\langle X, Y\rangle$-Modules"
  2014 University of Missouri-Columbia MA Thesis

TALKS

Cartesian Equipments as Databases
AtCat Seminar, Dalhousie University, 18 October 2022

Regular Logic in a 'Double Category of Relations'
Peripatetic Seminar, University of Calgary, 17 March, 2022.

Improvements to 'Double Categories of Relations'
AtCat Seminar, Dalhousie University, 8 February 2022

Blockchain Safety in a Topos
Ottawa Logic Seminar, University of Ottawa, 2 December, 2021

A Topos View of Blockchain Safety
AtCat Seminar, Dalhousie University, 16 November, 2021

Discrete Double Fibrations
CT20→21, University of Genoa, 30 August, 2021

Characterizing Double Categories of Relations
Applied Category Theory 2021, Cambridge University, 16 July 2021

Discrete Double Fibrations
Peripatetic Seminar, University of Calgary, 12 February 2021

A 2-Site for Continuous 2-Group Actions
CMS Summer Meeting, University of Regina, 10 June 2019

A Site for Continuous Group Actions
AtCat Seminar, Dalhousie University, 5 March 2019

Exactness of an Internal Colimit Functor for 2-Categories
AtCat Seminar, Dalhousie University, 20 November 2018

The Calculus of Fractions in a Cosmos of Internal Categories
Octoberfest 2018, City College CUNY, 28 October 2018

Diaconescu's Theorem for 2-Toposes of Stacks
Category Theory 2018, University of Azores, 13 July 2018

A Tensor Product of Fibrations as a Codescent Object
CMS Summer Meeting 2018, University of New Brunswick, 4 June 2018

Flat Category-Valued Pseudo-Functors
AtCat Seminar, Dalhousie University, 30 January 2018

Principal Bundles and Torsors as Flat Functors
AtCat Seminar, Dalhousie University, 28 November 2017

Pseudo-Functors, Generalized Principal Bundles, and Torsors
Octoberfest 2017, Carnegie Mellon University, 28 October 2017

Generalizing Principal Bundles
Category Theory 2017, University of British Columbia, 18 July 2017

Wild Algebras in Cartesian Categorical Logic
TACL 2017, Prague, Czech Republic, 30 June 2017

Representation Embeddings of Cartesian Theories
AtCat Seminar, Dalhousie University, 10 Jan 2017

Representation Embeddings of Algebraic Theories
Union College Mathematics Conference, Union College, 3 December 2016

AWARDS

Nova Scotia Graduate Scholarship   2014-2017
$30,000 CAD, Dalhousie University

AARMS Student Travel Award Homotopy Type Theory Workshop   June 2016
The Fields Institute, University of Toronto $1,000 CAD

AARMS Student Travel Award   July 2014
AARMS Summer School 2014, Dalhousie University, $650 CAD

Excellence in Teaching Award 2013-2014   April 2014
Mathematics Department
University of Missouri-Columbia