

Clive Newstead

ADDRESS: Department of Mathematics, Northwestern University
2033 Sheridan Road, Evanston, IL 60208, USA

EMAIL: cnewstead@northwestern.edu OFFICE: Locy Hall 205 TEL: (847) 467-2221

WEBSITE: <https://sites.math.northwestern.edu/~newstead/>

EMPLOYMENT AND EDUCATION

Lecturer , Department of Mathematics, <i>Northwestern University</i>	Sep 2018 – Aug 2021
PhD in Mathematical Sciences, <i>Carnegie Mellon University</i>	Aug 2013 – Aug 2018
BA & MMath in Mathematics, <i>University of Cambridge (Robinson College)</i>	Oct 2009 – Jun 2013

TEACHING

Teaching portfolio available upon request

Courses at Northwestern University

Math 211-0	Short Course in Calculus	Sp19
Math 290-1,2,3	MENU Linear Algebra and Multivariable Calculus	AY 2018–19
Math 300-0	Foundations of Higher Mathematics	Fa18, Wi19

Courses at Carnegie Mellon University

15-151	Mathematical Foundations for Computer Science	Summer 2017
21-127	Concepts of Mathematics	Summer 2015
21-256	Multivariate Analysis	Summer 2015

Professional development

Senior Graduate Teaching Fellow, <i>Eberly Center, Carnegie Mellon University</i>	Jan 2017 – Aug 2018
Graduate Teaching Fellow, <i>Eberly Center, Carnegie Mellon University</i>	Jan 2015 – Dec 2016
Future Faculty Program, <i>Eberly Center, Carnegie Mellon University</i>	Apr 2014 – Dec 2015

TEXTBOOK

An infinite descent into pure mathematics. Preprint. Current version: Mar 2018, 398 pages. Accessible at www.infinitedescent.xyz. Used by myself and 5 other instructors teach 800+ students at Carnegie Mellon since summer 2015.

RESEARCH

My research investigates connections between logic, algebra and topology. Using category theoretic tools, I study algebraic structures arising in dependent type theory, and I am also investigating equivalences between ∞ -categorical models of homotopy type theory.

PAPERS

Polynomial pseudomonads and dependent type theory <i>Joint work with Steve Awodey. Preprint: arXiv:1802.00997.</i>	February 2018
Categories of models of homotopy type theory <i>Joint work with Simon Cho, Cory Knapp and Liang Ze Wong.</i>	expt. 2018

CONTRIBUTED TALKS

Relating to mathematics

HoTT/UF 2018, <i>University of Oxford</i>	July 2018
Homotopy Type Theory MURI meeting, <i>Carnegie Mellon University</i>	March 2018
Category Theory Octoberfest, <i>Carnegie Mellon University</i>	October 2017
Homotopy Type Theory MURI meeting, <i>Carnegie Mellon University</i>	March 2017
International Category Theory Conference, <i>Dalhousie University</i>	August 2016
ASL Logic Colloquium, <i>University of Leeds</i>	August 2016
Homotopy Type Theory MURI meeting, <i>Carnegie Mellon University</i>	March 2016
Homotopy Type Theory MURI meeting, <i>University of Cambridge</i>	March 2015
Kan Extension Seminar at CT 2014, <i>University of Cambridge</i>	August 2014

Relating to teaching and learning

Teaching and Learning Summit, <i>Carnegie Mellon University</i>	October 2016
POD Network Conference, <i>San Francisco, CA</i>	November 2015

AWARDS

University Graduate Student Teaching Award, <i>Carnegie Mellon University</i>	April 2016
Hugh D. Young Teaching Award, <i>Mellon College of Science, CMU</i>	April 2016
Robinson College Prize and Scholarship, <i>University of Cambridge</i>	July 2012
Crausaz–Wordsworth Essay Prize, <i>University of Cambridge</i>	November 2011
Adrian Knight Prize in Mathematics, <i>University of Cambridge</i>	July 2011

SERVICE

MCS Graduate Student Advisory Council, <i>Carnegie Mellon University</i>	Jun 2014 – Aug 2018
MCS College Council, <i>Carnegie Mellon University</i>	Aug 2015 – May 2016
Graduate Student Assembly executive board, <i>Carnegie Mellon University</i>	Jun 2015 – Sep 2017
Graduate Student Assembly representative, <i>Carnegie Mellon University</i>	Sep 2013 – May 2015
Board of the Faculty of Mathematics, <i>Cambridge</i>	Nov 2011 – Nov 2012
University Library Syndicate, <i>Cambridge</i>	Oct 2011 – Oct 2012
Faculty of Mathematics Teaching Committee, <i>Cambridge</i>	Oct 2010 – Jun 2013