

ROBERT Y. LEWIS

PERSONAL DATA

ADDRESS: CMU, 5000 FORBES AVE. / DEPT. PHILOSOPHY, BH135 / PITTSBURGH, PA 15224
EMAIL: RLEWIS1@ANDREW.CMU.EDU
WEBSITE: [HTTP://ANDREW.CMU.EDU/USER/RLEWIS1](http://ANDREW.CMU.EDU/USER/RLEWIS1)

EDUCATION

2012 – PRESENT	PHD IN PURE AND APPLIED LOGIC, Carnegie Mellon University , PITTSBURGH, PA MS IN MATHEMATICS, 2015 MS IN LOGIC, COMPUTATION, AND METHODOLOGY, 2014 MS THESIS: <i>Polya: A Heuristic Procedure for Reasoning with Real Inequalities</i> ADVISOR: JEREMY AVIGAD
SUMMER 2015	VISITING STUDENT, University of Newcastle , NSW, AUSTRALIA CARMA PRIORITY RESEARCH CENTRE SUPERVISOR: JONATHAN BORWEIN
2006 – 2010	BA IN MATHEMATICS AND PHILOSOPHY, Rice University , HOUSTON, TX

EMPLOYMENT

2010 – 2012	St. Agnes Academy , HOUSTON, TX <i>Secondary School Teacher</i> 10 TH GRADE GEOMETRY, 11 TH AND 12 TH GRADE PRE-CALCULUS, 12 TH GRADE AP CALCULUS AB
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PUBLICATIONS

AVIGAD, LEWIS, AND ROUX. *A heuristic prover for real inequalities*. JOURNAL OF AUTOMATED REASONING (FORTHCOMING).

AVIGAD, LEWIS, AND ROUX. *A heuristic prover for real inequalities*. IN KLEIN, G. AND GAMBOA, R., EDS., PROCEEDINGS OF INTERACTIVE THEOREM PROVING 2014 (SPRINGER LNCS).

ROSALES, LEWIS, ET. AL. *Energy-minimizing unit vector fields*. INVOLVE 3(4), 2010.

PRESENTATIONS

Dependent types and the algebraic hierarchy.

- WORKSHOP ON MATHEMATICS AND COMPUTATION, NEWCASTLE, NSW, AUSTRALIA. 06/2015.

A heuristic prover for real inequalities.

- INTERACTIVE THEOREM PROVING, VIENNA, AUSTRIA. 07/2014.
- 6TH PODLASIE CONFERENCE ON MATHEMATICS, BIALYSTOK, POLAND. 07/2014.
- CMU GRADUATE RESEARCH SHARING FORUM, PITTSBURGH, PA. 12/2013.

Computers in mathematics: automated and interactive proofs.

- CMU SUMMER SCHOOL IN LOGIC AND FORMAL EPISTEMOLOGY. 06/2014.

Some unintuitive consequences of the Axiom of Choice.

- RICE UNIVERSITY UNDERGRADUATE MATHEMATICS COLLOQUIUM. 09/2009.

Energy-minimizing vector fields of unit length.

- RICE UNIVERSITY VIGRE SUMMER SEMINAR. 07/2009.

TEACHING

ALL CLASSES AT CARNEGIE MELLON UNIVERSITY, UNLESS OTHERWISE INDICATED.

SPRING 2015	80-110, <i>Nature of Mathematical Reasoning</i> (INSTRUCTOR)
FALL 2014	21-257, <i>Models and Methods of Optimization</i> (TEACHING ASSISTANT)
SUMMER 2014	80-110, <i>Nature of Mathematical Reasoning</i> (INSTRUCTOR)
SPRING 2014	80-311, <i>Undecidability and Incompleteness</i> (TEACHING ASSISTANT)
FALL 2013	80-610, <i>Formal Logic</i> (TEACHING ASSISTANT AND GUEST LECTURER)
2010 – 2012	<i>Geometry, Pre-calculus, AP Calculus AB</i> (ST. AGNES ACADEMY, INSTRUCTOR)
2007 – 2010	MATH 221/222/354, <i>Honors Calculus III/IV, Honors Linear Algebra.</i> (RICE, GRADER)

SERVICE

2015	CMU DEPT. PHILOSOPHY 30 TH ANNIVERSARY PLANNING COMMITTEE
2015	CMU DEPT. PHILOSOPHY GRADUATE ADMISSIONS COMMITTEE
2013 –	REVIEWER, <i>Minds and Machines</i>
2013 –	ORGANIZER, CMU DEPT. PHILOSOPHY GRADUATE RESEARCH SHARING FORUM
2011 – 2012	COACH AND SPONSOR, ST. AGNES ACADEMY ENGINEERING/ROBOTICS TEAM
2008 – 2010	COORDINATOR AND TUTOR, SRC SOCIETY OF ACADEMIC FELLOWS, RICE UNIVERSITY

AWARDS, GRANTS, AND HONORS

2015 – 2016	WILLIAM S. DIETRICH II PRESIDENTIAL PHD FELLOWSHIP
2014	HONORABLE MENTION, NSF GRADUATE RESEARCH FELLOWSHIP PROGRAM