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CITIZENSHIP USA

EMPLOYMENT ◇ University of Michigan (Ann Arbor, MI, USA) *Aug. 2021 – Present*
 Assistant Professor
 Computer Science & Engineering

 ◇ Wesleyan University (Middeltown, CT, USA) *Dec. 2020 – Aug. 2021*
 Postdoctoral Researcher

EDUCATION **Northeastern University**, Boston, MA *2012 – 2020*
 PhD in Computer Science, *Dec, 2020*
 Thesis: *A Semantic Foundation for Gradual Typing*
 Advisor: Amal Ahmed
 Committee: Matthias Felleisen, Ronald Garcia, Daniel R. Licata, Peter Thiemann,
 Mitchell Wand

Northwestern University, Evanston, IL *2009 – 2014*
 MS in Computer Science, *June 2014*
 BA in Computer Science and Mathematics, *June 2013*

RESEARCH INTERESTS Programming language design, semantics and implementation; gradually typed programming languages; compiler intermediate languages; type theory; category theory

PHD ADVISEES Eric Giovannini *Fall 2021-Present*, PhD Candidate, Metatheory of Gradually Typed Programming Languages.

UNIVERSITY SERVICE **University of Michigan** Hosting Committee *Fall 2022-Winter 2023*
 Graduate Committee *Fall 2021-Winter 2022*

PROFESSIONAL ACTIVIES AND SERVICE	Program Co-chair with Daniel Hillerström Eleventh Workshop on Higher Order Programming with Effects (HOPE 2023)	<i>Fall 2023</i>
	Program Co-chair with Jeremy Gibbons Ninth Workshop on Mathematically Structured Functional Programming (MSFP 2022)	<i>April 2022</i>
	Program Co-chair with Sam Lindley Eighth Workshop on Mathematically Structured Functional Programming (MSFP 2020)	<i>April 2020</i>
	Invited Participant Shonan Meeting No. 146: Programming and Reasoning with Algebraic Effects and Effect Handlers	<i>March 2019</i>
	Dagstuhl Seminar 18201: Secure Compilation	<i>May 2018</i>
	Panelist NSF Proposal Reviewer, 2022	
	Panelist Programming Languages Mentoring Workshop at POPL 2019 Panel: Grad School and Beyond	<i>January 2019</i>
	Co-chair with Gabriel Scherer New England Programming Languages and Systems Symposium (Selection Committee May 2016, June 2017, August 2018)	<i>October 2016</i>
	Program Committee Member (Conference)	
	<ul style="list-style-type: none"> • 38th International Conference on Mathematical Foundations of Programming Semantics (MFPS) 2022 • ACM SIGPLAN International Conference on Functional Programming (ICFP) 2019 	
	Program Committee Member (Workshop)	
	<ul style="list-style-type: none"> • Human Aspects of Types and Reasoning Assistants (HATRA) 2021 • Human Aspects of Types and Reasoning Assistants (HATRA) 2020 	
	External Review Committee/Artifact Evaluation Committee OOPSLA 2023	
Journal Reviewing for: ACM Transactions on Programming Languages and Systems (TOPLAS), Journal of Functional Programming (JFP), Logical Methods in Computer Science (LMCS)		
Conference Reviewing POPL, ICFP, LICS, FoSSaCs, LNCS, TOPLAS, OOPSLA		

PUBLICATIONS (JOURNAL)	<p>Call-by-name Gradual Type Theory <i>LMCS Vol 16, Issue 1, 2020</i> Max S. New, Daniel R. Licata <i>Journal of Functional Programming</i></p> <p>How to evaluate the performance of gradual type systems <i>JFP Vol 29, 2019</i> Ben Greenman, Asumu Takikawa, Max S. New, Daniel Feltey, Robert Bruce Findler, Jan Vitek, Matthias Felleisen <i>Journal of Functional Programming</i></p> <p>Fair Enumeration Combinators <i>JFP Vol 27, 2017</i> Max S. New, Burke Fetscher, Robert Bruce Findler, Jay McCarthy <i>Journal of Functional Programming</i></p>
PUBLICATIONS (CONFERENCE)	<p>A Formal Logic for Formal Category Theory <i>FoSSaCs 2023</i> Max S. New, Daniel R. Licata <i>International Conference on Foundations of Software Science and Computation Structures</i></p> <p>Graduality and Parametricity: Together Again for the First Time <i>POPL 2020</i> Max S. New, Dustin Jamner, Amal Ahmed <i>ACM SIGPLAN Symposium on Principles of Programming Languages</i></p> <p>Gradual Type Theory <i>POPL 2019</i> Max S. New, Daniel R. Licata, Amal Ahmed <i>ACM SIGPLAN Symposium on Principles of Programming Languages</i></p> <p>Graduality from Embedding-projection Pairs <i>ICFP 2018</i> Max S. New, Amal Ahmed <i>ACM SIGPLAN International Conference on Functional Programming</i></p> <p>Call-by-name Gradual Type Theory <i>FSCD 2018</i> Max S. New, Daniel R. Licata <i>International Conference on Formal Structures for Computation and Deduction</i></p> <p>FabULous Interoperability for ML and a Linear Language <i>FoSSaCS 2018</i> Gabriel Scherer, Max S. New, Nick Rioux and Amal Ahmed <i>International Conference on Foundations of Software Science and Computation Structures</i></p> <p>Fully Abstract Compilation via Universal Embedding <i>ICFP 2017</i> Max S. New, William J. Bowman, and Amal Ahmed <i>ACM SIGPLAN International Conference on Functional Programming</i></p> <p>Oh Lord, Please Don't Let Contracts be Misunderstood (Functional Pearl) <i>ICFP 2016</i> Christos Dimoulas, Max S. New, Robert Bruce Findler, Matthias Felleisen <i>ACM SIGPLAN International Conference on Functional Programming</i></p> <p>A Coq Library For Internal Verification of Running-Times <i>FLOPS 2016</i> Jay McCarthy, Burke Fetscher, Max New, Daniel Feltey, Robert Bruce Findler <i>International Symposium on Functional and Logic Programming</i></p> <p>Is Sound Gradual Typing Dead? <i>POPL 2016</i> Asumu Takikawa, Daniel Feltey, Ben Greenman, Max S. New, Jan Vitek, Matthias Felleisen <i>ACM SIGPLAN Symposium on Principles of Programming Languages</i></p>

WORKSHOP TALKS	Relative Monads in Call-by-push-value as an Abstraction of Stack-Based Effects Max S. New <i>Higher-order Programming with Effects</i>	<i>HOPE 2022</i>
	From Call-by-push-value to Stack-based TAL? Max S. New <i>Syntax and Semantics of Low-Level Languages</i>	<i>LOLA 2019</i>
	Every Program in Your Redex Model, in Order RacketCon 2013	<i>September 2013</i>
TEACHING	University of Michigan ◇ EECS 483, <i>Compiler Construction</i> Upper-level undergraduate compilers course	<i>Fall 2021, Fall 2022</i>
	◇ EECS 598, <i>Category Theory for Computer Scientists</i> Graduate-level course on category theory and programming language semantics	<i>Winter 2022, Winter 2023</i>
INVITED TALKS	Compiling with Call-by-push-value Mathematical Foundations of Program Semantics 2023	<i>June 2023</i>
	Gradual Typing for Effect Handlers POPV Seminar, Boston University	<i>May 2023</i>
	A Type Theory for Formal Category Theory Tallinn Institute of Technology	<i>March 2023</i>
	A Type theory for Formal Category Theory LIX Proofs and Algorithms Seminar, École polytechnique	<i>October 2022</i>
	Type Theoretic Gradual Typing PL Club, University of Pennsylvania	<i>June 2019</i>
	A Type Theoretic Approach to Gradual Typing Principles of Programming Seminar, Carnegie Mellon University	<i>October 2018</i>
	Semantic Foundations for Gradual Typing Mathematical Foundations of Program Semantics 2018	<i>June 2018</i>
	Call-by-name Gradual Type Theory Northeastern PL Seminar	<i>April 2018</i>
	Retractions and Blame Northeastern PL Seminar	<i>December 2016</i>