Todd Schmid (he/him/they/them)

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POSITIONS HELD

07/2023 to present	**Assistant Professor** at SAINT MARY'S COLLEGE OF CALIFORNIA Department of Mathematics and Computer Science Moraga, CA, USA
04/2022 to 07/2023	**Research Assistant** at CORNELL UNIVERSITY Department of Computer Science Ithaca, NY, USA
09/2021 to 02/2022	**Guest Researcher** at RADBOUD UNIVERSITY Department of Computer Science Nijmegen, The Netherlands

EDUCATION

09/2019 to 06/2023 (defended) to 01/2024 (conferred)	UNIVERSITY COLLEGE LONDON Graduate Program: **PhD Computer Science** (4 year program) London, UK
09/2018 to 08/2019	UNIVERSITY OF TORONTO Graduate Program: **MSc Mathematics** (1 year program) Toronto, ON, Canada
09/2013 to 05/2018	UNIVERSITY OF VICTORIA Undergraduate Program: **Honours BSc Mathematics** Victoria, BC, Canada

TEACHING

02/2024 to present	**Instructor** at SAINT MARY'S COLLEGE OF CALIFORNIA, Moraga, CA, USA - CS485: Introduction to Automata and the Theory of Computation - CS121: Programming I
09/2023 to 12/2023	**Instructor** at SAINT MARY'S COLLEGE OF CALIFORNIA, Moraga, CA, USA - CS374: Analysis of Algorithms - CS121: Programming I
08/2022 to 11/2022	**Co-Instructor** at XIDIAN UNIVERSITY, Xi'an, China Theory of Computation: Automata and Induction

02/2022 to 10/2022	**Co-Instructor** at GEC ACADEMY, Beijing, China Theory of Computation: Automata and Coinduction
01/2020 to 12/2021	**Teaching Assistant** at UNIVERSITY COLLEGE LONDON, London, UK - COMP0147: Discrete Mathematics for Computer Science - COMP0017: Computability and Complexity Theory
09/2018 to 05/2019	**Teaching Assistant** at UNIVERSITY OF TORONTO, Toronto, ON, Canada MAT137: Calculus!
09/2015 to 05/2018	**Teaching Assistant** at UNIVERSITY OF VICTORIA, Victoria, BC, Canada - MATH122: Logic and Foundations - MATH100: Calculus I - MATH120: Precalculus - MATH200: Calculus III
09/2016 to 05/2018	**Assistance Centre Tutor** at UNIVERSITY OF VICTORIA, Victoria, BC, Canada

PUBLICATIONS

2023	*Fractals from Regular Behaviours* Authors: **Todd Schmid**, Victoria Noquez, and Lawrence Moss 10TH CONFERENCE ON ALGEBRA AND COALGEBRA IN COMPUTER SCIENCE (CALCO) Best Paper Award
	A Complete Inference System for Skip-free Guarded Kleene Algebra with Tests Authors: Tobias Kappé, **Todd Schmid**, and Alexandra Silva 32ND EUROPEAN SYMPOSIUM ON PROGRAMMING (ESOP)
	Probabilistic Guarded KAT Modulo Bisimilarity: Completeness and Complexity Authors: Wojciech Rozowski, Tobias Kappé, Dexter Kozen, **Todd Schmid**, and Alexandra Silva 50TH INTERNATIONAL COLLOQUIUM ON AUTOMATA, LANGUAGES, AND PROGRAMMING (ICALP)
2022	*Processes Parametrised by an Algebraic Theory* Authors: **Todd Schmid**, Wojciech Rozowski, Jurriaan Rot, and Alexandra Silva 49TH INTERNATIONAL COLLOQUIUM ON AUTOMATA, LANGUAGES, AND PROGRAMMING (ICALP)
2021	*How to Write a Coequation ((Co)algebraic pearls)* Authors: Fredrik Dahlqvist and **Todd Schmid** 9TH CONFERENCE ON ALGEBRA AND COALGEBRA IN COMPUTER SCIENCE (CALCO)

On Star Expressions and Coalgebraic Completeness Theorems
Authors: **Todd Schmid**, Jurriaan Rot, and Alexandra Silva
37TH CONFERENCE ON MATHEMATICAL FOUNDATIONS OF PROGRAMMING SEMANTICS (MFPS)

Guarded Kleene Algebra with Tests: Coequations, Coinduction, and Completeness
Authors: **Todd Schmid**, Tobias Kappé, Dexter Kozen, and Alexandra Silva
48TH INTERNATIONAL COLLOQUIUM ON AUTOMATA, LANGUAGES, AND PROGRAMMING (ICALP)

2019

Concrete barriers to quantifier elimination in finite dimensional C^*-algebras
Authors: Christopher Eagle and **Todd Schmid**
MATHEMATICAL LOGIC QUARTERLY, vol. 65

PREPRINTS

2022

A (Co)algebraic Framework for Ordered Processes
URL: https://arxiv.org/abs/2209.00634

2022

Presenting with Quantitative Inequational Theories
Presented at BLAST 20222, at CHAPMAN UNIVERSITY, Orange, CA, USA
URL: https://arxiv.org/abs/2207.11629

TALKS

10/2023

How to Write a Coequation
Venue: Boston Computation Club, Boston, MA, USA

09/2023

Generating Melodies and Fractals with Transition Systems
Venue: Saint Mary's College of California Math Colloquium
Hosted by: SAINT MARY'S COLLEGE OF CALIFORNIA, Moraga, CA, USA

08/2022

Presenting Quantitative Inequational Theories
Venue: BLAST 2022
Hosted by: CHAPMAN UNIVERSITY, Orange, CA, USA

07/2022

Presenting Quantitative Inequational Theories
Venue: ICALP 2022
Hosted by: UNIVERSITÉ PARIS CITÉ, Paris, France

08/2021

On Star Expressions and Completeness Theorems
Venue: MFPS 2021
Hosted by: UNIVERCITY OF SALZBURG, Salzburg, Germany

07/2021	*Guarded Kleene Algebra with Tests: Coequations, Coinduction, and Completeness* Venue: ICALP 2021 Hosted by: University of Glasgow, Glasgow, Scotland, UK
03/2020	*Guarded Kleene Algebra with Tests: Coequations, Coinduction, and Completeness* Venue: Programming Principles, Logic, and Verification Group Seminar Hosted by: University College London, London, UK
09/2019	*Sheaves, or How to Glue Stuff Together* Venue: SUMS Student Seminar Hosted by: University of Victoria, Victoria, BC, Canada
08/2019	*Topos Theory and the Independence of the Continuum Hypothesis* Venue: Toronto Set Theory Seminar Hosted by: Fields Institute, Toronto, ON, Canada
11/2018	*Why Heyting Algebras are Interesting* Venue: University of Toronto Graduate Student Seminar Hosted by: University of Toronto, Toronto, ON, Canada
07/2017	*A Tale of Two Models* Venue: Canadian Undergraduate Mathematics Conference Hosted by: UQÀM, Concordia, and Université de Montréal, Montréal, QC, Canada
01/2017	*A Fixed-Point Theorem from Modal Logic* Venue: Séminaires universitaires en mathématiques à Montréal Hosted by: UQÀM, Concordia, and Université de Montréal, Montréal, QC, Canada

Service and Outreach

09/2020 to 08/2021	London Maths Outreach **Director**
05/2017 to 04/2018	Undergraduate Math and Stats Course Union (SUMS) **Co-president**
07/2014 to 09/2014	Canadian Undergraduate Mathematics Conference **Organizer**
06/2010 to 08/2017	Byte Camp **Instructor**