Sina Hazratpour

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Education

Academic Qualifications

○ **University of Birmingham**
PhD in Computer Science   *2015-2017*

○ **The University of Western Ontario**
M.Sc. in Mathematics   *2013-2015*

○ **Ferdowsi University**
B.Sc. in Mathematics   *2009-2013*

○ **NODET**
High school   *2005-2009*

Research Interests

○ **Category Theory, Categorical Logic, Homotopy Type Theory, Topos Theory, Higher Category Theory**

Talks, Seminars, and Conferences

○ **Fibration Of Toposes From Extension of Logical Theories**
PSSL 101, School of Mathematics, University of Leeds, UK
September 2017

○ **Classifying Topos Of Topological Categories**
Theory Group Lab Lunch, School of Computer Science, University of Birmingham, UK
March 2017

○ **String Diagrams For Distributivity Law Of Monads In Bicategories**
CARGO seminars, University of Birmingham, UK
February 2017

○ **Injective Objects In Toposes**
CARGO seminars, University of Birmingham, UK
November 2016

○ **Geometric Theories And Classifying Toposes**
Theory Group Lab Lunch University of Birmingham, UK
October 2016

○ **Polynomial Functors For Presheaf Toposes And Groupoids**
CARGO seminars, University of Birmingham, UK
June2015

- **Polynomial Functors And Opetopes**
  CARGO seminars, University of Birmingham, UK
  June2015

- **Sheafification As Categorical Localization**
  CARGO seminars, University of Birmingham, UK
  April 2015

- **Simplicial Model of Homotopy Type Theory**
  CARGO seminars, University of Birmingham, UK
  March 2015

- **The Joyal Model Structure On Simplicial Sets**
  CARGO seminars, University of Birmingham, UK
  January 2015

- **Categorical Probability And Categorical Entropy**
  Theory Group Lab Lunch, School of Computer Science, University of Birmingham, UK
  September 2015

- **Some Remarks On Contexuality, Choice, And Cohomology**
  Theory Seminars, School of Computer Science, University of Birmingham, UK
  August 2015

- **A Gentle Introduction To Quantum Computing For Computer Scientists**
  CARGO seminars, University of Birmingham, UK
  July 2015

- **Gleason's Theorem And Its Generalization In Toposical Setting**
  Grad Seminars. Western University. London, Canada
  April 2015

- **Homogeneous Manifolds**
  Geometry and Topology seminars. Western University. London, Canada
  February 2015

- **Kochen-Specker Theorem And Its Toposical Formulation**
  Grad Seminars. Western University. London, Canada
  November 2014

- **Quiver Representations And Gabriel's Theorem**
  Algebra seminars. University of Waterloo, Canada
  October 2014

- **Category Theory In HoTT**
  HoTT Seminar. Western University. London, Canada
  October 2014

- **On Plenitudious Platonism**
  Western Philosophy Seminars, Western University, London, Canada
  September 2014

- **Modules Of Differentials And Hochschild Formula**
  Graduate Seminar. Commutative Algebra. Western University. London, Canada
  March 2014

- **Groupoids And Van-Kampen Theorem**
  Class Seminar. Algebraic Topology. Western University. London, Canada
  November 2013

Recent Participation In:

- **School And Workshop On Univalent Mathematics**
  University of Birmingham, December 11-15, 2017
- **PSSL 101 (Peripatetic Seminar in Sheaves and Logic)**
  University of Leeds, September 15-17, 2017
- **YTM (Young Topologist Meeting 2016)**
  University of Copenhagen, July 4-8, 2016
- **YAMCATS (Yorkshire and Midlands Category Theory Seminar)**
  Meetings 6,7,13 in Leicester, Leeds, and Birmingham
- **PSSL 100**
  University of Cambridge, 21 - 22 May 2016
- **Motives and Derived Algebraic Geometry**
  University of Essen, Germany, May 6-8, 2016
- **Midlands Graduate School**
  University of Birmingham, UK, 11 - 15 April, 2016
- **Higher Geometric Structures Along The Lower Rhine VII**
  KU, Leuven, April 7-8, 2016
- **PSSL 98**
  Doorn, the Netherlands
- **IHES Topos**
  IHES, France, November 23-27, 2015
- **150 Years of London Mathematical Society**
  University of Birmingham, UK, September 18-20, 2015
- **Infinite-Dimensional Representations of Finite-Dimensional Algebras**
  Summer School, University of Manchester, September 8-13, 2015
- **British Logic Colloquium 2015**
  University of Cambridge, September 1-4, 2015
- **Logic Colloquium 2015**
  University of Helsinki, August 8-13, 2015
- **Scandinavian Logic Summer School 2015**
  University of Helsinki, July 27-August 3, 2015
- **QPL 2015**
  University of Oxford, July 13-17, 2015
- **HoTT workshop by QMAC**
  University of Oxford, November 7-10, 2014

Teaching Experiences

- **Demonstrator For Models of Computation**
  School of Computer Science
  University of Birmingham, Spring 2018
- **Demonstrator For First-Year Functional Programming Languages (OCaml)**
  School of Computer Science
  University of Birmingham, Autumn 2015, 2016, 2017
- **Demonstrator For Team Project Module (Game Design in Java)**
  School of Computer Science
  University of Birmingham, Spring 2017
- **Demonstrator For Introduction to Mathematics for Computer Science**
  School of Computer Science
  University of Birmingham, Spring 2016
- **Demonstration For Second-Year Functional Programming Languages (Haskell)**

School of Computer Science
University of Birmingham, Autumn 2015

- **TA For MATH 3122B (Metric Space Topology)**
Mathematics Department
Western University, Autumn 2014
- **TA For MATH 2122A (Real Analysis)**
Mathematics Department
Western University, Spring 2014
- **TA For Calculus 1225 Help Center**
Faculty of Science
Western University, Autumn 2014
- **Running Putnam Training Sessions**
Faculty of Science
Western University, Autumn 2013, 2014
- **TA For MATH 1229 (Finite Maths)**
Faculty of Science
Western University, Autumn 2013, Spring 2014
- **TA For Linear Algebra Math 1600A**
Faculty of Science
Western University, Spring 2014
- **TA For Theory of Rings and Modules**
Mathematics Department
Ferdowsi University, Autumn 2012
- **TA For Complex Variable and Applications**
Mathematics Department
Ferdowsi University, Autumn 2011
- **Number theory and Combinatorics**
High school Mathematical Olympiad Camp
NODET High School, 2011-2012

Awards, Honours, and Prizes

- **Postgraduate Studentship**
School of Computer Science, University of Birmingham, UK
May 2015
- **Research Assistantship Scholarship**
Faculty of Science, University of Western Ontario
September 2013
- **Entrance Scholarship**
Department of Mathematics, University of Western Ontario
September 2013
- **Dean Award For Achievement In IMC Maths Competition**
Mathematics Department of Ferdowsi University of Mashhad, July 2011, 2012
- **Dean Award For Achievement In IMS Maths Competition**
Mathematics Department of Ferdowsi University of Mashhad, March 2010, 2011, and 2012

Skills

Computer Skills

o **Programming Languages**
Haskell, OCAML, Coq, C, HTML, Mathematica

Languages

o **English (fluent), Persian (native), Dutch (basic)**

References

o **Professor John L.Bell** Philosophy Department, Western University, London, Canada
http://publish.uwo.ca/~jbell/
jbell@uwo.ca

o **Professor Steven Vickers** School of Computer Science, University of Birmingham, UK
http://www.cs.bham.ac.uk/~sjv/
s.j.vickers@cs.bham.ac.uk

o **Professor Martin Pinsonnault** Department of Mathematics, Western University, London, Canada
http://www.math.uwo.ca/~mpinson/
mpinson@uwo.ca

o **Professor Martín Escardó** School of Computer Science,
http://www.cs.bham.ac.uk/~mhe/
m.escardo@cs.bham.ac.uk

o **Professor Masoud Khalkhali** Department of Mathematics, Western University, London, Canada
http://www.math.uwo.ca/~masoud/index.html
masoud@uwo.ca

o **Professor Paul Levy** School of Computer Science, University of Birmingham, UK
https://www.cs.bham.ac.uk/~pbl/
P.B.Levy@cs.bham.ac.uk

o **Professor Mohammad Sal Moslehian** Department of Mathematics, Ferdowsi University
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moslehian@um.ac.ir