Daniel Carranza

Curriculum Vitae

Education

Fall 2023 **Ph.D.**, Johns Hopkins University
Mathematics

2022-2023 **Program Associate**, MSRI

2021-2022 **M.Sc.**, University of Toronto
Mathematics

2017–2021 **B.Sc.**, Western University
Honour's Specialization in Mathematics; minor in Computer Science.

Research

Papers

February 2021 **Cubical setting for discrete homotopy theory, revisited**, Preprint
With C. Kapulkin
https://arxiv.org/abs/2202.03516

February 2021 **Homotopy groups of cubical sets**, Preprint
With C. Kapulkin
https://arxiv.org/abs/2202.03511

January 2021 **2-adjoint equivalences in homotopy type theory**, *Logical Methods in Computer Science*
With J. Chang, C. Kapulkin, and R. Sandford
https://arxiv.org/abs/2008.12433
https://lmcs.episciences.org/7124

Talks

October 2022 ***TBA***, *AMS Fall Eastern Sectional Meeting*, University of Massachusetts Amherst

May 2022 **Cubical Setting for Discrete Homotopy Theory**, *Ontario Combinatorics Workshop*, University of Waterloo

August 2020 **Formal Verification of Mathematics**, *CUMC 2020*, Western University
https://youtu.be/LCW682zcEVs

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August 2020 **Formalizing 2-Adjoint Equivalences in Homotopy Type Theory**, *Western Homotopy Theory Seminar*, Western University
https://youtu.be/BIqhGYoo_PU

Scholarships and Awards

Summer 2021 **NSERC Undergraduate Student Research Award**, *Cubical Methods in Discrete Homotopy Theory*, Western University

Summer 2020 **NSERC Undergraduate Student Research Award**, *2-Adjoint Equivalences in HoTT*, Western University

2018-2021 **Dean's Honor List**

September 2017 **Western Scholarship of Excellence**

Teaching Experience

Teaching Assistant

Winter 2022 **Math Learning Centre**, University of Toronto

Winter 2022 **Engineering Calculus 2**, University of Toronto

Fall 2021 **Engineering Linear Algebra**, University of Toronto

Other Activities

June 2022 **Higher Categories and Categorification, Part Two**, *Participant*, MSRI

February 2020 **Higher Categories and Categorification**, *Research Visit*, MSRI

October 2019 **Midwest Homotopy Type Theory Seminar**, *Conference*, University of Michigan

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