Daniel Carranza

Curriculum Vitae

Education

Fall 2023	**Ph.D.**, Johns Hopkins University Mathematics
2022-2023	**Program Associate**, SLMath (formerly 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	**The Hurewicz theorem for cubical homology**, Preprint With C. Kapulkin and A. Tonks https://arxiv.org/abs/2207.12500
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

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