

Marco Vergura

Curriculum Vitae

PERSONAL DETAILS

Birth July 23, 1991
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WORK EXPERIENCE

Full-time Lecturer 2019-2024
THE OHIO STATE UNIVERSITY AT NEWARK (OH, USA)
I have been a full-time lecturer in Mathematics at OSU-Newark since Fall 2019.

EDUCATION

Ph.D. in Mathematics 2015-2019
WESTERN UNIVERSITY (ON, CANADA)
Ph.D student in homotopy theory, higher category theory and homotopy type theory under the supervision of Dan Christensen.
Graduated with a thesis on localization theory in an ∞ -topos.

M.Sc. Mathematics 2013-2015
UNIVERSITY OF PADOVA (ITALY) & UNIVERSITY OF LEIDEN (THE NETHERLANDS)
Student in the ALGANT double-degree Master's program in Mathematics.
Master's degree in mathematics received from both the University of Padova and the University of Leiden.
Graduated cum laude with a thesis called "A Giraud-type Theorem for Model Topoi" under the supervision of Matan Prasma and Bas Edixhoven.

B.Sc. Mathematics 2010-2013
UNIVERSITY OF TRENTO (ITALY)
Graduated summa cum laude with a Bachelor's thesis in sheaf theory, supervised by Stefano Baratella.

TEACHING EXPERIENCE & EDUCATION IN TEACHING

Course Instructor Fall 2019 - Spring 2023
THE OHIO STATE UNIVERSITY AT NEWARK
I taught courses in precollege mathematics, college algebra, trigonometry, calculus, mathematics for liberal arts students, numeracy and geometry for elementary teachers. My classes consisted of 30-35 students, with a very diverse background. I taught each course for three, four or five hours per week, for fifteen weeks.

Course Instructor Fall 2018

CALCULUS 1000, WESTERN UNIVERSITY

Selected as one of the two fourth-year Ph.D. students chosen every year by the Department of Mathematics at Western University to teach a first-year undergraduate course. Calculus 1000 is a basic introduction to single-variable calculus. My class consisted of about 200 students and I taught four hours per week.

Substitute instructor Winter 2018

CALCULUS 1225, WESTERN UNIVERSITY

Recommended as a substitute instructor for an introductory course on selected topics in single- and multi-variable calculus at Western University for a 3-week period, teaching three hours of classes per week.

Teaching Assistant Fall 2015 to Summer 2018; Winter 2019

LINEAR ALGEBRA 1600, WESTERN UNIVERSITY

I was repeatedly assigned as a TA to a linear algebra course for students in mathematics and other scientific disciplines at Western University. My duties included running weekly one-hour long tutorials, resulting in a mixture of active teaching duties and answering questions.

Participant in a course on university teaching Fall 2017

SGPS 9500, WESTERN UNIVERSITY

Took and passed a graduate-level course in university teaching and learning, based on the book *How Learning Works: Seven Research Based Principles for Smart Teaching* (Ambrose, S. A. et al., 2010).

Skills developed: critically reflect on contemporary issues in teaching and learning, develop and facilitate active learning activities, and give and receive constructive feedback.

Developed a course-design project as well as a group presentation on multiple choice questions.

CERTIFICATES AND AWARDS

Affordable Learning Exchange (ALX) High-Support Grant March 2022

THE OHIO STATE UNIVERSITY

I won a grant to build open-access lecture notes for the Precalculus-series courses. These course notes contain definitions and explanations of concepts and results, detailed solved exercises and practice problems to test students' understanding. The notes are written in LaTeX, allowing for effective portability, modification and sharing of the source files. The goal is to present the material with an emphasis on conceptual understanding and mathematical rigour. More details on the ALX program can be found [here](#).

Faculty of Science Graduate Student Teaching Award May 2019

WESTERN UNIVERSITY

I was selected, by the Department of Mathematics at Western University, as the recipient of the above award, given to graduate teaching assistants which show excellent teaching skills.

Western Certificate in Teaching and Learning April 2019

WESTERN UNIVERSITY

I obtained this certificate, which is given to graduate students at the end of a formative program that aims at enhancing and complementing their teaching skills with evidence-based and student-centered effective teaching method. Further details can be found [here](#).

PREPRINTS AND PUBLICATIONS

1. M. Vergura, *L'-localization in an ∞ -topos*. Published in *Theory and Application of Categories*, Volume 35 - 2020 (pages 196-277). The paper is available [here](#).
2. M. Vergura, *Localization theory in an ∞ -topos*. ArXiv preprint available [here](#).

TALKS

- “*Localization theory in an ∞ -topos*”. **Invited talk at Geometry & Topology Seminar** (Western University, February 2019) and at the **AMS Special Session on Structured Homotopy Theory** (Ann-Arbor, MI, 20-21 October 2018).
- “*Localization at a prime p* ”. Two talks given in the **reading seminar on localization in homotopy theory** in Winter 2018 (Western University).
- “*Dold-Kan correspondence for stable ∞ -categories*”. Talk given in the **reading seminar on stable ∞ -categories** in Spring 2017 (Western University).
- “*Models for $(\infty, 1)$ -categories*”. Two talks given at the **reading seminar on higher category theory in Fall 2016** (Western University).

CONFERENCES

- **Participant** in the **Fall Perspectives on Teaching** conference at Western University. Keynote speaker: Peter Felten (Elon University).
- **Participant** in the **2018 MIT Talbot Workshop** on Model-independent theory of ∞ -categories (May 27-June 2, 2018, Government Camp, OR). Mentors for the workshop were Emily Riehl and Dominic Verity.
- **Participant** in the Learning Seminar in **Topological Data Analysis** at Western University (Spring 2018).
- **Participant** in the **2016 International Category Theory Conference**.
- **Participant** in the **2016 AARMS Summer School** (July-August 2016, Halifax, Canada).
- **Participant** in the **Workshop on Homotopy Type Theory and Univalent Foundations of Mathematics** at the Fields Institute in Toronto (May 16-20, 2016).

SKILLS

Languages Italian (mother tongue)
 English (fluent)