

# Clover May

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NTNU Department of Mathematical Sciences  
Norwegian University of Science and Technology  
Trondheim, Norway

## RESEARCH AREA

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Algebraic Topology – Equivariant homotopy theory,  $RO(G)$ -graded cohomology, structured ring spectra, parametrized cohomology, and tensor triangular geometry.

## POSTDOCTORAL EXPERIENCE

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<b>NTNU – Norwegian University of Science and Technology</b> <i>Postdoctoral Fellow</i>	Aug 2021 – present Trondheim, Norway
<b>UCLA – University of California Los Angeles</b> <i>Assistant Adjunct Professor</i>	Jul 2018 – Jun 2021 Los Angeles, CA, USA

## RESEARCH VISITS

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<b>Isaac Newton Institute for Mathematical Sciences</b> <i>Equivariant homotopy theory in context</i>	Spring 2025 Cambridge, UK
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## EDUCATION

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<b>University of Oregon, Eugene, OR, USA</b> <ul style="list-style-type: none"><li>Ph.D. in Mathematics Thesis: <i>A structure theorem for <math>RO(C_2)</math>-graded cohomology</i> Advisor: Daniel Dugger</li><li>M.S. in Mathematics</li></ul>	Jun 2018 Jan 2015
<b>North Carolina State University, Raleigh, NC, USA</b> <ul style="list-style-type: none"><li>Post Baccalaureate Certificate in Mathematics</li></ul>	Jun 2012
<b>University of Massachusetts, Boston, MA USA</b> <ul style="list-style-type: none"><li>B.A. in Mathematics, Summa cum Laude (Highest Honors)</li><li>B.A. in Sociology, Summa cum Laude (Highest Honors)</li></ul>	May 2011 Dec 2006

## PUBLICATIONS

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***A guide to equivariant parametrized cohomology***,  
joint with A. Beaudry, C. Lewis, S. Pauli, and E. Tatum.  
To appear in *Topology and its Applications*.  
[arXiv:2410.13971](https://arxiv.org/abs/2410.13971) [[math.AT](https://arxiv.org/abs/2410.13971)]

***Equivariant  $H\mathbb{Z}/\ell$ -modules for the cyclic group  $C_2$*** ,  
joint with D. Dugger and C. Hazel.  
*Journal of Pure and Applied Algebra*, Volume 228, Issue 3 (2024), 107473.  
DOI [10.1016/j.jpaa.2023.107473](https://doi.org/10.1016/j.jpaa.2023.107473)

**Genuine-commutative structure on rational equivariant  $K$ -theory for finite abelian groups**, joint with A. M. Bohmann, C. Hazel, J. Ishak, and M. Kędziorek.  
Bulletin of the London Mathematical Society, Volume 54, Issue 3 (2022), 1082-1103.  
DOI [10.1112/blms.12616](https://doi.org/10.1112/blms.12616)

**Naive-commutative structure on rational equivariant  $K$ -theory for abelian groups**, joint with A. M. Bohmann, C. Hazel, J. Ishak, and M. Kędziorek.  
Topology and its Applications, Volume 316 (2022).  
DOI [10.1016/j.topol.2022.108100](https://doi.org/10.1016/j.topol.2022.108100)

**The freeness theorem for equivariant cohomology of  $\text{Rep}(C_2)$ -complexes**, joint with E. Hogle.  
Topology and its Applications, Volume 285 (2020), 107413.  
DOI [10.1016/j.topol.2020.107413](https://doi.org/10.1016/j.topol.2020.107413)

**A structure theorem for  $RO(C_2)$ -graded Bredon cohomology.**  
Algebraic & Geometric Topology 20-4 (2020), 1691–1728.  
DOI [10.2140/agt.2020.20.1691](https://doi.org/10.2140/agt.2020.20.1691)

## IN PREPARATION

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**The Balmer spectrum of constant  $C_p$ -Mackey functors**, joint with D. Heard.  
Draft available upon request.

**Equivariant  $H\mathbb{F}_p$ -modules are wild**, joint with J.F. Grevstad.

**Parametrized cohomology of the classifying space for  $C_2$ -line bundles**, joint with A. Beaudry, C. Lewis, S. Pauli, and E. Tatum.

**Unique commutative structures on rational equivariant real  $K$ -theory**, joint with A. M. Bohmann and M. Kędziorek.

**Integral freeness for sparse  $\text{Rep}(C_2)$ -complexes.**

## GRANTS

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<b>LMS Research School Grant</b> Motives, equivariant topology, and $tt$ -geometry, £15,000	Aug 2024
<b>Trond Mohn Foundation Grant</b> Nordic Topology Conference, 230,976 NOK	Mar 2022
<b>RCN: Equations in Motivic Homotopy Theory (EMOHO)</b> participant	2021 – present
<b>US Junior Oberwolfach Fellow</b>	Aug 2019

## AWARDS

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<b>UCLA Liggett Instructors Award</b>	Jun 2021
<b>UOregon Anderson Distinguished Graduate Teaching Award</b>	Jun 2017
<b>UOregon Paul and Harriet Civin Memorial Graduate Award</b>	Jun 2012
<b>UMass Boston Juan Carlos Merlo Prize</b>	Jun 2011

## RESEARCH SUPERVISION & MENTORING

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### Masters Thesis Supervisor

- Chileshe Mwamba (with Drew Heard), *NTNU, Norway* 2023 – 2024  
Title: *The Balmer spectrum of the category of perfect modules over Atiyah's equivariant K-theory*

**Women in Topology IV Team Leader** with Agnès Beaudry 2022 – present

### Thesis Committee Member and Examiner

- Javier Orts Romero – PhD Thesis, *IST, Portugal* Spring 2024
- Cherry Ng – PhD Thesis, *CU Boulder, USA* Spring 2022
- Sigurd Gaukstad – Masters Thesis, *NTNU, Norway* Spring 2022

## SELECTED INVITED TALKS

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### Invited Conference and Workshop Talks

- Isaac Newton Institute Programme and Workshop: Equivariant homotopy theory in context – *Cambridge, UK* Jan 2025
- French Algebraic Topology Conference – *Toulouse, France* Oct 2024
- Workshop: Betti numbers in commutative algebra and equivariant homotopy theory – *Bielefeld, Germany* Sep 2024
- Geometry and Quantum Theory Colloquium – *Nijmegen, Netherlands* Aug 2024
- Barcelona Topology Workshop – *Barcelona, Spain* Feb 2024
- 29th Nordic Congress of Mathematicians: Topology Special Session – *Aalborg, Denmark* Jul 2023
- AIM Workshop: Equivariant techniques in stable homotopy theory Session – *San Jose, CA, USA* Oct 2022
- Institut Mittag-Leffler EWM-EMS Summer School on Chromatic Homotopy Theory and Friends – *Djursholm, Sweden* Jun 2022
- BIRS Workshop on Equivariant Stable Homotopy Theory and  $p$ -adic Hodge Theory – *Banff, Canada* Mar 2020
- JMM Special Session on Categorical and Computational Methods in Homotopy Theory – *Denver, CO, USA* Jan 2020
- Vietnam–USA AMS Joint Mathematical Meeting – *Quy Nhon, Vietnam* Jun 2019
- Midwest Topology Seminar – *East Lansing, MI, USA* May 2019
- AMS Sectional: Special Session in Homotopy Theory, University of California Riverside – *Riverside, CA, USA* Nov 2017

### Invited Seminar Talks and Minicourses

- Instituto Superior Técnico (IST) Algebra Seminar – *Lisbon, Portugal* Feb 2024
- Utrecht–Nijmegen Topology Seminar – *Utrecht, Netherlands* Nov 2023
- UPenn Homotopy Theory Seminar – *Philadelphia, PA, USA* Feb 2023

- Stockholm University Topology Seminar – *Stockholm, Sweden* Nov 2022
- Vanderbilt Geometry Seminar – *Nashville, TN, USA* Dec 2021
- Warwick Algebraic Topology Seminar – *Warwick, UK* Feb 2021
- EPFL Topology Seminar – *Lausanne, Switzerland* Dec 2020
- Rutgers University Algebra Seminar – *New Brunswick, NJ* Dec 2020
- UC Santa Cruz Algebra and Number Theory Seminar – *Santa Cruz, CA, USA* Nov 2020
- eCHT Minicourse: Equivariant Cohomology – *Online* Sep 2020
- University of Virginia Topology Seminar – *Charlottesville, VA, USA* Sep 2019
- UCLA Algebraic Topology Seminar – *Los Angeles, CA, USA* Oct 2018
- University of Rochester Topology Seminar – *Rochester, NY, USA* Apr 2018
- University of British Columbia Topology Seminar – *Vancouver, BC, Canada* Mar 2018
- University of Chicago Topology Seminar – *Chicago, IL, USA* Oct 2017
- Northwestern University Topology Seminar – *Evanston, IL, USA* Oct 2017

## TEACHING AT NTNU

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**Lecturer/Instructor of record for 4 courses:** planned courses, presented material, administered oral exams.

MA3403: Algebraic Topology I (Masters)	Fall 2022, Fall 2023
MA3408: Algebraic Topology II (Masters)	Spring 2023, Spring 2024

## TEACHING AT UCLA

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**Lecturer/Instructor of record for 13 courses:** planned courses, presented material, wrote assessments, managed graduate student TAs and undergraduate learning assistants.

Math 32A: Multivariable Calculus (Large lecture)	Fall 2018, Winter 2019, Spring 2021
Math 32B: Multivariable Calculus (Large lecture)	Spring 2019, Fall 2019
Math 33AH: Honors Linear Algebra and Applications	Winter 2021
Math 115A: Linear Algebra	Winter 2019, Spring 2019
Math 115B: Linear Algebra	Winter 2020
Math 120A: Differential Geometry	Fall 2020, Winter 2021, Spring 2021
Math 237: Graduate Topics - Spectral Sequences (PhD)	Spring 2020

## TEACHING AT UOREGON

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**Lecturer/Instructor of record for 20 courses:** planned courses, presented material, wrote and graded assessments.

Math 105: University Math I	Summer 2014
Math 111: College Algebra	Fall 2012, Winter 2013, Spring 2013
Math 112: Elementary Functions	Summer 2013, Winter 2014, Spring 2014, Fall 2014, Fall 2016
Math 251: Calculus I	Winter 2015, Winter 2016, Fall 2017
Math 252: Calculus II	Summer 2015, Fall 2015, Spring 2016
Math 253: Calculus III	Summer 2017

Math 256: Differential Equations	Summer 2016, Summer 2018
Math 281: Multivariable Calculus I	Winter 2018
Math 282: Multivariable Calculus II	Spring 2018

**Teaching Assistant for 3 courses:** conducted recitation sections, graded exams.

Math 241: Calculus for Business and Social Science I	Fall 2013, Winter 2017
Math 242: Calculus for Business and Social Science II	Spring 2015

## SERVICE

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- **Referee** for Advances in Mathematics, Topology and its Applications.
- **LMS Research School Organizer** 2024 – present  
Organizing research school: Motives, equivariant topology, and  $tt$ -geometry to be held in Warwick, UK September 2025.
- **NTNU Geometry and Topology Seminar Organizer** 2023 – present
- **NTNU Researchers' Night** 2023  
Led high school students through activities involving Möbius bands.
- **EMOHO Postdoc Hiring Committee** 2023
- **eCHT Employment Networking Event Organizer** 2022 – 2023  
Organized networking events for early career researchers in topology.
- **Nordic Topology Conference Organizer** 2022  
Organized international conference held in Trondheim, Norway.
- **UCLA Math Equity, Diversity, and Inclusion Committee** 2020 – 2021
- **UCLA Algebraic Topology Seminar Organizer** 2018 – 2021
- **QSTEM Mentor** 2018 – 2021  
Mentor to queer STEM undergraduate students at UCLA.
- **UOregon Graduate Homotopy Seminar Organizer** 2017 – 2018
- **Chair AWM Speaker Series Committee** 2016 – 2017  
Organizer of the AWM Distinguished Speaker Series.
- **JUMP! Mentor** 2016 – 2017  
Mentor to University of Oregon undergraduate students in STEM fields.
- **Graduate Student Mentor** 2015 – 2017  
Mentor to first year graduate students at University of Oregon.
- **AWM K-12 Outreach Committee** 2014 – 2017  
Led minimal surfaces and soap films activity at the Science Factory.  
Volunteered at Malabon Elementary Afterschool Program.  
Led math activities with children at Meet a Scientist Day.
- **AWM Mentoring Committee** 2014 – 2016  
Helped organize undergraduate/graduate reading program.  
Mentor for undergraduate reading on Minimal Surfaces and Soap Films.
- **Curriculum Development for Math 112** 2015  
Developed curriculum for trigonometry at University of Oregon.