

# Adaline E. De Chenne

New Mexico State University  
Department of Mathematical Sciences

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## *Education*

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| <b>PhD in Mathematics</b><br>Oregon State University<br>Advisor: Elise Lockwood   | Graduation Date: July 2023<br>Corvallis, OR |
| <b>Master of Science in Mathematics</b><br>Oregon State University<br>Advisor: Elise Lockwood                                     | Graduation Date: 2020<br>Corvallis, OR      |
| <b>Bachelor of Science in Mathematics</b><br>University of Puget Sound<br>Honors in Major, Magna Cum Laude, Member Phi Beta Kappa | Graduation Date: May 2015<br>Tacoma, WA     |

## *Positions*

**Assistant Professor, Tenure-Track**, New Mexico State University, Department of Mathematical Sciences, 2023 - present

**Graduate Teaching Assistant**, Oregon State University, Department of Mathematics, 2017 - 2019, 2022 - 2023

**Graduate Research Assistant**, Oregon State University, Department of Mathematics, 2019 - 2022

## *Research Support*

**Graduate Research Assistant. CAREER: Developing Undergraduate Combinatorial Curriculum In Computational Settings.** With Elise Lockwood (Principal Investigator). National Science Foundation Department of Undergraduate Education (DUE) – 1650943. 2017 – 2022. Responsibilities include: data collection, data analysis, scheduling, writing.

**Graduate Research Assistant. Integrating CS Education into Teacher Education and K-12 Mathematics.** With Jennifer Parham-Mocello (Principal investigator), Elise Lockwood (Co-principal investigator) and Rebekah Elliott (Co-principal investigator). Oregon State University. Google. 2019 – 2020. Responsibilities include: data collection.

## *Scholarship*

### **Refereed Journal Articles**

**De Chenne, A. & Lockwood, E. (2022).** A Task to Connect Counting Processes to Lists of Outcomes in Combinatorics. *The Journal of Mathematical Behavior*, 65(3).  
DOI: 10.1016/j.jmathb.2021.10093

Lockwood, E. & **De Chenne, A.** (2021). Reinforcing key combinatorial ideas in a computational setting: A case of encoding outcomes in computer programming. *The Journal of Mathematical Behavior*, 62(6).

Lockwood, E. & **De Chenne, A.** (2020). Using conditional statements in Python to reason about sets of outcomes in combinatorial problems. *International Journal of Research in Undergraduate Mathematics Education*, 6(3), pp. 303 - 346.

### **Refereed Conference Proceedings (\* indicates accepted)**

**De Chenne, A.** \* Computer Programs as Semiotic Resources for Counting Problems. Accepted to the XXVI Annual Conference on Research on Undergraduate Mathematics Education. University of Nebraska, Omaha: Omaha, NE.

**De Chenne, A.** \* Developing Personal Representations to Access a Set-Oriented Perspective on Counting. Accepted to the 15th International Congress on Mathematical Education. Sydney, AU.

**De Chenne, A.,** & Lockwood, E. (2023) A Case of a Computational Setting Facilitating Empirical Re-Conceptualization. 25th Annual Conference on Research in Undergraduate Mathematics Education. University of Nebraska Omaha: Omaha, NE.

**De Chenne, A.** (2022). A Framework for a ‘Set-Oriented Perspective’ in Combinatorics Using the Theory of Register of Semiotic Representations. Proceedings of the 24th Annual Conference on Research in Undergraduate Mathematics Education. Boston University: Boston, MA.

**De Chenne, A.,** & Lockwood, E. (2022). Listing algorithms for combinatorial problems with variable parameter values: a case study. Proceedings of the 12th Annual Congress of Education Research in Mathematics Education. Free University of Bozen-Balzano, IT.

**De Chenne, A.** & Lockwood, E. (2020). Student verification practices for combinatorics problems in a computational environment. Proceedings of the 23rd Annual Conference on Research in Undergraduate Mathematics Education.

Lockwood, E. & **De Chenne, A.** (2020). Investigating undergraduate students’ generalizing activity in a computational setting. In Sacristán, A.I., Cortés-Zavala, J.C. & Ruiz-Arias, P.M. (Eds.). (2020). *Mathematics Education Across Cultures: Proceedings of the 42nd Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, (pp. 2174-2182). Mexico. Cinvestav / AMIUTEM / PME-NA. <https://doi.org/10.51272/pmna.42.2020>

Lockwood, E. & **De Chenne, A.** (2019) Preservice teachers’ development of mathematical knowledge for teaching via combinatorial tasks in a computational setting. Accepted to the 14th International Congress on Mathematics Education.

Lockwood, E., **De Chenne, A.,** & Valdes-Fernandez, S. (2019). Affordances of solving counting problems in a computational environment. In Graven, M., Venkat, H., Essien, A. & Vale, P. (Eds.). (2019). *Proceedings of the 43rd Conference of the International Group for the Psychology of Mathematics Education (Vol 3)* (pp. 41-48). Pretoria, South Africa: PME.

### **Conference Presentations (not included among conference proceedings)**

**De Chenne, A.** “Legitimizing Non-Institutional, Functional Representations for Learning Combinatorics”. Association for Women in Mathematics Research Symposium, Clark Atlanta University. October 2023.

**De Chenne, A.** & Lockwood, E. “Pre-service teachers reasoning about computational

representations of counting problems.” Annual meeting of the Pacific Northwest section of the Mathematical Association of America (MAA). Western Washington University. April 2022.

**De Chenne, A., & Lockwood, E.** “Connecting Sets of Outcomes with Counting Processes: What is the  $m$ th element?” Joint Mathematics Meetings (JMM). Denver 2020.

**De Chenne, A. & Lockwood, E.** “Student Verification Schemes for Combinatorial Problems in a Computational Setting.” Annual meeting of the Pacific Northwest section of the Mathematical Association of America (MAA). University of Portland. April 2019.

### **Other Presentations**

**De Chenne, A.** “Empirical Re-Conceptualization in a computational setting: A Case study.” Presented to the Oregon State University Graduate Seminar. July, 2022.

**De Chenne, A.** “Finding Positional Representations of Real Numbers by Counting Sets of Outcomes.” Presented to the Oregon State University Mathematics REU. July 2021

**De Chenne, A.** “Positional Representations of Real Numbers.” Part of completion of Masters of Science, Mathematics Department. July 2020.

**De Chenne, A. & Lockwood, E.** “Student Verification Practices for Combinatorics Problems in a Computational Environment.” Presented at Center for Computing in Science Education, University of Oslo, Norway. September 2019.

**De Chenne, A. & Lockwood, E.** “Asking the Right Questions: What is the  $m$ th Element?”. Presented to Oregon State University Mathematics Graduate Seminar. July 2019.

**De Chenne, A. & Lockwood, E.** “Connecting Outcomes and Counting.” Presented to Oregon State University Mathematics REU. July 2019.

### **Posters**

**De Chenne, A.** \* “Developing Personal Representation Systems in Combinatorics” Accepted to the 15th International Congress on Mathematical Education. Sydney, AU.

**De Chenne, A. & Lockwood, E.** “Student Verification Schemes for Combinatorics Problems in a Computational Setting.” Oregon State University, Mathematics Department. April, 2019.

### ***Teaching Experience***

**Summary.** As an instructor of record, I have been responsible for developing course materials (assessments and assignments), grading, and leading classes. I have also coordinated with other instructors to create jointly shared materials and to ensure that policies between classes are the same. As a teaching assistant, I have led recitations, graded assignments, held office hours, and tutored at a tutoring center.

#### **Courses Taught: Instructor of Record**

- **Differential Equations.** Summer 2020, Fall 2023, Spring 2024.
- **Vector Calculus.** Summer 2022, Spring 2024.
- **Integral Calculus.** Summer 2018.
- **Business Calculus.** Fall 2018.
- **College Algebra.** Fall 2022.

#### **Courses Taught: Teaching Assistant**

- **PreCalculus** (Math 150X). Fall 2017.
- **Elements of Discrete Mathematics** (Math 231).
- **Differential Calculus** (Math 251). Winter 2018.

## *Service*

**Equity, Inclusion, and Diversity Committee.** NMSU College of Arts and Sciences 2023-2024. The committee was formed to find and implement ways to foster equity, inclusion, and diversity in the college of arts and sciences. The committee has only recently formed, but we look forward to accomplishments in 2024.

**Majors and Minors Committee.** NMSU Mathematical Sciences Department 2023-2024. Responsibilities include recommending applicants for department scholarships, academic advising for majors.

**Conference Co-organizer, online session.** Math For All, 2024 upcoming. Responsibilities will include organizing online component of a national conference, and soliciting presenters.

**Conference Organizer.** Math For All conference, Corvallis 2023. Responsibilities include collaborating on itinerary for conference, and responsible for marketing of conference.

**DEJAI Committee Member.** Upcoming. Responsibilities will include helping to develop and refine department policies to promote diversity, equity, justice, access, and inclusion.

**Post Doc Search Committee Member.** 2020. Responsibilities include regular meetings and review of candidates for Post-doctorate hire in the Mathematics Department.

## *Awards and Honors*

**Lonseth Award Outstanding Performance in Coursework.** Award given to graduate students with highest achievements in coursework, awarded in my first year. Mathematics Department, 2018.

## *References*

Dr. Elise Lockwood  
Associate Professor, Oregon State University  
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Dr. Mary Beisiegel  
Associate Professor, Oregon State University  
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Dr. Mark Guzdial  
Professor, University of Michigan  
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