Arundhati Anand Velamur, Ph.D.

Postdoctoral Fellow, Department of Teacher Education, NTNU

T04.422 Akrinn, Kalvskinnet, Trondheim NO

+47 90 83 94 18 | arundhati.velamur@ntnu.no | Website

ACADEMIC APPOINTMENTS

Norwegian University of Science and Technology, Norway
Postdoctoral Fellow in Critical Mathematics Education, ILU, Trondheim 2025–present

Homi Bhabha Centre for Science Education, India
Short-term Visiting Fellow, Mumbai November-December 2026

The Bard High School Early Colleges, NY USA
Assistant Professor of Mathematics, BHSEC Bronx 2024–2025
Faculty, Bard Diverse Network of Action Summer Program 2018
Faculty in Mathematics, BHSEC Queens 2014–2018

NYU Steinhardt School of Culture, Education, and Human Development, NY USA
Adjunct Faculty, Department of Teaching & Learning 2022–2024
Adjunct Faculty, Program in Mathematics Education 2019–2023
Research Fellow, Department of Teaching & Learning 2022–2024

CURRENT RESEARCH

Postdoctoral Research Project on Critical Climate Education

This is a sociocultural study of teaching and learning across disciplines and formal and informal contexts related to the climate change. Arguing through ethnographic participant observation and critical sociolinguistic analyses of classroom interactions, I have been tracing critical teaching and learning practices that lead to a re-orienting of participants towards the climate crisis. Premised on the idea that learning is a transformation of the self, the project offers that to slow the march of climate change demands a restoring of people to the earth – a reversal of the separation of humanity and nature achieved by traditional approaches to schooling that must be subverted and challenged. Fieldwork is ongoing and emergent findings, which are under peer-review for publication in academic journals, urge for interdisciplinary approaches in formal education that acknowledge and draw on the more-than-human and indigenous ways of being in and knowing about nature.

Ethnomethodological study of the learning in the ecofeminist practice of a 'kolams'
This study, being conducted in parallel to my main postdoctoral project, explores the learning of an artistic form known as 'kolam,' a daily ritual practice local to South India and Southeast Asia. Made largely by women across social and economic classes and with varying degrees of formal education, kolams are intricate geometrical decorations made from dry or wet rice flour and placed at the thresholds of homes, buildings and temples. There is no formal training in kolam-making; yet, every morning, kolam artists produce ephemeral, mathematically complex creations in a matter of minutes. As such, the artform offers fertile ground for studying learning as a situated, ecofeminist process unfolding in a traditional community of practice caught in the crosshairs of drastic environmental disaster. Fieldwork for this project is set to commence in Chennai, a major city in South India, in November 2026.

Book Manuscript: Teacher-Subject/Subject-Teacher
'Teacher-Subject/Subject-Teacher' traces the inventive practices teachers undertake in response to the pressures of neoliberal life conditions. The book conceives of teaching as an interactive performance; no two performances are identical and each performance is transient. As neoliberal educational policy extends its reach into classrooms everywhere, seeking to closely monitor and prescribe what unfolds inside them, I intend the book as an account of *teaching as a performance of resistance* to these imperatives. The manuscript pairs my extensive research into teaching and learning across formal and informal contexts with 15 years' worth of experience as a university and K12 teacher to surface the creative ways in which teachers refuse confinement in times – like ours – of social and political destabilization.

EDUCATION

Ph.D. Teaching and Learning 2024
New York University, New York NY
Dissertation: *Mathematics in the Margins: Politics and the Production of Subjectivity*
Chair: Jasmine Y. Ma, New York University

M.A. Mathematics Education 2014
Teachers College, Columbia University, New York NY

M.Sc. Mathematics 2010
Indian Institute of Technology Bombay, Mumbai, India
Thesis**:** *Differential Topology and Vector Fields on Spheres*

B.Sc. Mathematics 2008
St. Xavier's College, University of Mumbai, Mumbai India

PROFESSIONAL CERTIFICATION

NY State Mathematics 7-12 Professional Teaching Certificate 2022

New York State Board of Education, New York NY

Writing & Thinking Certification 2014
Attended several workshops over an eleven-year period on writing and teaching to write
Bard College Institute of Writing and Thinking, Annandale-on-Hudson NY

GRANTS AND AWARDS

Individual Recognition

NYU Steinhardt Dissertation Finishing Award 2023
New York University, New York NY, USA

NYU Global Research Initiative Summer Dissertation Writing Fellowship 2023
New York University, New York NY, USA

Fellow, Teacher Leadership Program 2017
Park City Mathematics Institute, *Park City, Utah, USA*

Early Career Fellowship 2016
Math for America, New York NY, USA

The Inlaks International Scholarship for Postgraduate Study 2012
The Inlaks Shivdasani Foundation, Mumbai, India

Summer Research Fellowship 2007
Indian Academy of Sciences, Bangalore, India

As co-author

Advanced Informal STEM Learning (AISL) 2022
Project: "A Participatory Design Investigation of the Relationship between Program Setting and Science Identity Development."
PI: Jasmine Y. Ma, New York University
National Science Foundation, USA

SELECT PEER-REVIEWED PUBLICATIONS

Velamur, A. & Waid, B. (forthcoming 2027). "They want us to click on the headline!" Fostering critical readings of mathematics in news about genocide. *The Philosophy of Mathematics Education Journal 44*.

Velamur, A. & Chen, G. A. (in press). Learning as Rehearsal for Liberation. In J. Ávila, C.

Furman, & J. Jones (Eds.), *A Dialogue Between Educational Philosophers & Teacher Educators.* Bloomsbury, London.

Velamur, A. (under peer review). Against alienation: Why climate education needs a trans-disciplinary relational approach. *Educational Studies in Mathematics.*

Simon, M. A., Della Volpe, D., & **Velamur, A**. (2021). Construction of the cardinality principle through counting: critique and conjecture. *Mathematical Thinking and Learning*, pp. 1-16.

Fletcher, N., **Velamur, A.**, Waid, B., & Dimacali, A. (Eds.). (2013). *Mathematical modelling handbook II: The assessments*. Bedford, MA: COMAP.

SELECT PROCEEDINGS

Velamur, A. (2024). Between Dead-ends and Meatballs: Mathematical Practice as Embodied and Interactionally Accomplished. In Lindgren, R., Asino, T. I., Kyza, E. A., Looi, C. K., Keifert, D. T., & Suárez, E. (Eds.), *Proceedings of the 18th International Conference of the Learning Sciences - ICLS 2024 (pp. 1650-1653).* International Society of the Learning Sciences.

Velamur, A., Blake, A. R., Turan, N., Glassberg, R., Morales, T. V., Pan, K., Liang, S., Searcey, R., Y., J., & Barrales, W. (2023). "We do better math when we're together": Learning mathematics from the margins. In Blikstein, P., Van Aalst, J., Kizito, R., & Brennan, K. (Eds.), *Proceedings of the 17th International Conference of the Learning Sciences - ICLS 2023 (pp. 353-360).* International Society of the Learning Sciences.

Radke, S. & **Velamur, A.** (2022). Queer orientations as resources for mathematics learning. In Chinn, C., Tan, E., Chan, C., & Kali, Y. (Eds.), *Proceedings of the 16th International Conference of the Learning Sciences - ICLS 2022 (pp. 591-598).* International Society of the Learning Sciences.

Velamur, A., Gholson, M., Mendick, H., Radke, S., Ma, J. Y., Berge, M., Ottemo, A., & Silfver, E. (2021). Researching experiences of mathematics: Black/feminist and queer lenses. In D. Kollosche (Ed.), *Exploring new ways to connect: Proceedings of the Eleventh International Mathematics Education and Society Conference (Vol. 1, pp. 115–118).* Tredition.

Waid, B. E., **Velamur, A.**, Moore, A. S., & Whipple, K. S. (2021). Disrupting normativity in mathematics education: Meeting queer students at the intersection of their queer and mathematics identities. In D. Kollosche (Ed.), *Exploring new ways to connect: Proceedings of the Eleventh International Mathematics Education and Society Conference (Vol. 1, pp. 119–121).* Tredition.

Velamur, A. (2020). Learning From Collective Memory: Stories From a Singing Class for Returning Adult Learners. In Gresalfi, M. and Horn, I. S. (Eds.), *The Interdisciplinarity of the*

Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 2 (pp. 927-928). Nashville, Tennessee: International Society of the Learning Sciences.

Velamur, A., Della Volpe, D., Jones-Bey, N., Krishnamoorthy, R., Y., J., Malone, H., Radke, S., Kelton M., Levandov, J., & Marin, A. (2020). Temporalities In and Of Research: Cases From an Afterschool Documentary Filmmaking Program. In Gresalfi, M. and Horn, I. S. (Eds.), *The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 1 (pp. 476-483).* Nashville, Tennessee: International Society of the Learning Sciences.

SELECT TALKS & PANEL DISCUSSIONS

Seminar forthcoming 2027
"Dining table maths: Social and material interactions in intellectual work"
Learning in Everyday Practices Research Group, NTNU
Trondheim, Norway

Conference Presentation November 2026
"Building a supportive and inclusive institutional culture: Lessons from the mathematics departments of HBCUs"
With Terika Harris, Ph.D. as equal author
36th Novembertagung on the history and philosophy of Mathematics
Istanbul, Turkiye

Seminar September 2026
"Mathematics for the future: Why climate education requires an interdisciplinary approach"
Departmental Seminar in Mathematics, Department of Teacher Education, NTNU
Trondheim, Norway

Panelist April 2026
"Generating resistance, persistence, presence in the age of AI"
In conversation with the artist Aarati Akkapeddi at Bard College
Annandale-on-Hudson, NY, USA

Seminar January 2026
"Mathematics in the wild: Fostering critical discourse around climate change within and beyond mathematics classrooms."
Early Career Seminar, Department of Teacher Education, NTNU
Trondheim, Norway

Conference Presentation November 2025
"Mathematics as a Social-Cultural Practice: A Phenomenology from the Margins"
35th Novembertagung on the history and philosophy of Mathematics
Nancy, France

Conference Presentation July 2024
"Mathematics around the kitchen table: Social, interactional, and embodied negotiations in knowledge production."
4S – Annual Meeting of the Society for Social Studies of Science
Amsterdam, Netherlands

Conference Presentation November 2023
"The cultural politics of mathematics: Resistance and refusal at a mathematics conference."
Annual Meeting of the American Studies Association
Montreal, Canada

Conference Presentation July-August 2023
"Mathematics and the empire: Refusing official scripts"
With A. Blake, Ph.D. and S. Radke, Ph.D. as contributing authors
12th Mathematics Education and Society Conference
São Paulo, Brazil

Conference Presentation April 2023
"Towards Feminist Methods in Mathematics Education"
Annual Meeting of the American Educational Research Association
Chicago, IL, USA

Conference Presentation February 2020
"Learning Then and Learning Now: How Memory Mediates Membership and Learning in an Adult Singing Class"
Ethnography Forum 2020
Philadelphia, PA, USA

TEACHING: UNIVERSITY, HIGH SCHOOL, AND TEACHER PROFESSIONAL DEVELOPMENT

University/college courses

Educational Studies and Sociological Theory

- American Dilemmas: Race, Inequity, and the Unfulfilled Promise of Public Education
- Adolescent Learners in STEM Education
- Cultural Politics of Mathematics Practice

Mathematics content courses

- Problem-based Algebra, Geometry, Trigonometry

- Courses in the Calculus sequence: Calculus I, Calculus II, Elementary Linear Algebra, and Real Analysis
- Other foundational courses in mathematics: Applied Mathematics, Explorations in Number Theory, Mathematical Proof & Proving, Modern and Abstract Algebra for Teachers, Fundamental Concepts in Arithmetic

Pre-service teacher training courses

- Teaching of Geometry
- Teaching of Pre-calculus and Calculus
- Introduction to Computer Science Education
- Queer Pedagogy

Teacher professional development workshops

- Paper-folding in Mathematics, for *Math for America*
- Queer Pedagogies for Mathematics, for *TODOS* and *Math for America*
- Challenging common-sense assumptions in the teaching of mathematics, for *Math for America*

ACADEMIC SERVICE

Organizer, Interaction Analysis Laboratory (IAL) 2022–23
New York University, New York NY

Editorial Assistant, International Journal for the History of Mathematics Education 2013–14
Teachers College, Columbia University, New York NY

OTHER PROFESSIONAL EXPERIENCE IN EDUCATION

Facilitator, Professional Workshops for Teachers 2019-2024
Teacher Residency Program, NYU

Facilitator, Professional Workshops for Educators and Researchers 2019-2024
Annual Meetings of AERA, NCTM, 4S and other Academic Associations

Facilitator, Professional Workshops for Teachers 2016-2021
Math for America, New York, NY

PROFESSIONAL AFFILIATIONS

- American Educational Research Association (AERA)
- American Mathematical Society (AMS)
- American Studies Association
- European Society for Research in Mathematics Education (ERME)
- International Society of the Learning Sciences (ISLS)
- Mathematics Education and Society (MES)

- National Council of Teachers of Mathematics (NCTM)
- Todos: Mathematics for All
- 4S: Society for the Social Studies of Science

NON-ACADEMIC PROFESSIONAL EXPERIENCE

Unit Representative 2021 & 2023
NYU Graduate Student Organizing Committee - Local 2110, New York NY

Bargaining Committee Member 2020-21
NYU Graduate Student Organizing Committee - Local 2110, New York NY

Business Analyst 2010–12
AurionPro Solutions Pvt. Ltd., Mumbai, India

LANGUAGES

Native fluency:	English, Tamil, and Hindi
Developing fluency:	Norwegian (Bokmål, A2/B1) and Spanish (Central American A2)
Partial heritage fluency:	Urdu (spoken), Marathi (listening), Sanskrit (written)