

**Regina E. Toolin, Ph.D.**  
**Associate Professor**  
**College of Education and Social Services**  
**University of Vermont**  
**Rtoolin@uvm.edu**

**EDUCATION**

University of Wisconsin-Madison	Ph.D.	Curriculum and Instruction Science Education
City University of New York Lehman College	M.A.	Science Education
State University of New York SUNY Oneonta	B.A.	Physical Anthropology Biology Minor

**ACADEMIC APPOINTMENTS**

<b>University of Vermont</b>	<b>Associate Professor</b>	<b>8/12 - Present</b>
<b>College of Education and Social Services</b>	<b>Assistant Professor</b>	<b>8/06 – 8/12</b>
Teach graduate courses in curriculum and instruction in science education. Principal Investigator: NSF Robert Noyce Scholarship Program and DOE GEAR-UP Champlain Research Experience for Secondary Teachers Program. Co-PI NSF Collaborative Research: Network Cluster: Using Big Data approaches to assess ecohydrological resilience across scales.		
<b>Fordham University</b>		
<b>Graduate School of Education</b>	<b>Assistant Professor</b>	<b>9/04 – 8/06</b>
Taught graduate courses in elementary and secondary science education. Program Coordinator - Graduate Curriculum and Teaching Program. Co-Chair - University School Partnerships.		
<b>St. John’s University - School of Education</b>	<b>Assistant Professor</b>	<b>9/00 – 8/04</b>
Taught undergraduate and graduate courses in science education. Program Coordinator - Childhood Education Program. Co-Director Summer Science and Math Experience.		
<b>Pace University - School of Education</b>	<b>Assistant Professor</b>	<b>9/98 - 8/00</b>
Taught graduate and undergraduate courses in elementary and secondary science education.		
<b>University of Wisconsin - Madison</b>	<b>Lecturer</b>	<b>9/93-12/94</b>
<b>School of Education</b>		
Taught undergraduate courses in elementary science education.		
<b>Cardinal Spellman High School</b>	<b>Biology Teacher</b>	<b>9/86 - 6/90</b>
<b>Bronx, New York</b>		
Taught ninth and tenth grade Regents Biology and General Science.		

# **Regina E. Toolin, Ph.D.**

## **PROFESSIONAL EXPERIENCE**

### **Milton High School, Milton, VT**

#### **Science Consultant**

**9/08-6/11**

Conducted school-wide in-service workshops on teaching, learning and assessment in science for Milton MS/HS teachers. Emphasized a project-based approach and literacy and math integration strategies. Co-developed new 9<sup>th</sup> & 10<sup>th</sup> Integrated Science Curriculum.

### **Yonkers Public Schools, NY**

#### **Science Consultant**

**1/05 – 8/06**

Conducted school and district-wide professional learning workshops on teaching, learning and assessment in science Yonkers Public middle schools and high schools. Emphasized a project-based approach and literacy and math integration strategies. Planned and conducted school-wide focus groups on mission statement and curriculum development.

### **New York City Board of Education, NY**

#### **Science & Math Consultant**

**9/97- 6/06**

Conducted school and district-wide professional learning workshops/coaching on teaching, learning, and assessment in math and science in high need schools (Gr. 6-12) in the Bronx and Manhattan. Emphasized a project-based approach and literacy and math integration strategies.

### **Wappingers Falls School District, NY**

#### **Science Consultant**

**7/96 - 12/98**

Conducted district-wide in-service workshops on NYS Learning standards and assessments for math and science for Wappingers Fall Public middle schools and high schools.

### **Board of Cooperative Education Services**

#### **Regional Science Coordinator**

**8/95 - 6/96**

Administered science curriculum and professional learning programs for elementary and middle school teachers and administrators in Westchester and Putnam counties in New York. Coordinated Science 21 Elementary Curriculum and PD Program, Title II Programs, and the Science Mentor Network.

### **Health and Sciences Research, Inc., NJ**

#### **Clinical Research Associate**

**8/90 - 8/91**

Monitored Nicoderm® and Pravastatin® clinical trials ensuring the accuracy and authenticity of data and overall proper conduct of clinical trials. Involved in protocol development, data analysis, and report writing.

## **LEADERSHIP EXPERIENCE**

9/22	Vermont Academy of Science and Engineering – Honorary Member
8/12 - 8/20	Program Coordinator - Master of Arts in Teaching Secondary Education
9/09 – 9/25	PI/Director – UVM’s NSF Robert Noyce Scholarship Program
9/13- 8/23	PI/Director – GEAR-UP Champlain Research Experience for Secondary Teachers
10/16 -1/20	Director – Northeast Association for Science Teacher Education
1/17 - 5/20	Chair – Faculty Senate Educational Research Technologies Committee
9/17 - 12/19	Chair – CESS Faculty Standards Committee (Reappointed as Chair - 3/22-12/22)
1/17 - 5/20	Faculty Senate Executive Committee Member
1/17 - 5/20	Faculty Senate President and Provost Advisory Committee

## Regina E. Toolin, Ph.D.

### FUNDED PEER REVIEWED SCHOLARSHIP

<b>FEDERAL GRANTS (Role: PI or Co-PI) – N=11 Awards = \$9,258,595.00</b>			
<b>Award Period</b>	<b>Project Title</b>	<b>Award</b>	<b>Role</b>
9/2020 - 9/2025	National Science Foundation. Collaborative Research Network Cluster: Using Big Data approaches to assess ecohydrological resilience across scales	\$3,416,989.00	PI: J. Perdrial Co-PIs: K. Underwood, <b>R. Toolin</b> , B. Lee, D. Rizzo
9/2020 - 9/2025	National Science Foundation. Robert Noyce Scholarship Program. Preparing STEM+CS Educators for Teaching in Rural High-Need Schools in Vermont	\$1,199,975.00	<b>PI: R. Toolin</b> Co-PIs: R. Waterman, C. Petrick Smith, L. Dion
10/2018 - 8/2022	US Department of Education. Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP). Champlain Research Experience for Secondary Teachers (CREST)	\$695,000.00	<b>PI: R. Toolin</b>
10/2013 - 8/2018	US Department of Education. Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP). Champlain Research Experience for Secondary Teachers (CREST)	\$934,000.00	<b>PI: R. Toolin</b>
10/2015 - 10/2021	National Science Foundation. University of Vermont Robert Noyce Scholarship Program	\$799, 882.00	<b>PI: R. Toolin</b> Co-PIs: R. Waterman, C. Petrick Smith, T. Tang
7/2015 – 7/2017	US Department of Education. Math Science Partnership Program – Vermont STEM Leadership Institute (VSTEM)	\$324,000.00	<b>PI: R. Toolin</b> Co-PIs: D. Rizzo and S. Jorgenson
9/2010- 9/2013	National Science Foundation. Vermont Physics Initiative: Improving quantum mechanics undergraduate education and strengthening high school teacher preparation	\$199,999.00	PI: K. Chu <b>Co-PI: R. Toolin</b>
9/2010- 9/2013	National Science Foundation. Track 2: Satellites, Weather and Climate: A professional development teacher collaborative to enhance literacy in the climate, atmospheric and geospatial sciences	\$489,381.00	PI: L-A Dupigny-Giroux Co-PIs: J. Shafer, <b>R. Toolin</b> & B. Berryman
7/2009 – 6/2011	US Department of Education. Math and Science Partnership Program - Vermont Secondary Science Partnership (VSSP)	\$149,943.00	<b>PI: R. Toolin</b> Co-PIs: L-A Dupigny-Giroux and R. Waterman
9/2009- 8/2015	National Science Foundation. University of Vermont Robert Noyce Scholarship Program	\$899, 940.00	<b>PI: R. Toolin</b> Co-PIs: L-A Dupigny-Giroux and R. Waterman

## Regina E. Toolin, Ph.D.

6/2008 – 6/2010	National Science Foundation: Satellites, Weather and Climate (SWAC) - Contributing to geospatial climate education and literacy	\$149,486.00	PI: L-A Dupigny-Giroux Co-PIs: <b>R. Toolin</b> & B. Berryman
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### OTHER FEDERAL GRANT COLLABORATIONS

**(Role: Senior Personnel, Collaborator or Project Evaluator) – N = Awards = \$6,100,000.00**

Award Period	Project Title	Award	Role
5/2021 - 12/2022	National Aeronautic Space Administration. Assessing Citizen Science Labeling for Improving Training Data Quality for GLOBE Observer Land Cover Protocols within the GLOBE Observer	\$100,000.00	PI: B. Lee; Co-PI: G., Galford <b>Collaborator: R. Toolin</b>
8/2019 - 7/2023	National Science Foundation. EPSCoR RII Track 2 FEC: Leveraging <u>I</u> ntelligent Informatics and <u>S</u> mart Data for Improved Understanding of Northern Forest <u>E</u> cosystem Resiliency (INSPIRES)	\$6,000,000.00	PI: Weiskittel (UM), Co- PIs: D’Amato (UVM), Ollinger (UNH) Senior Personnel (Theme 4) <b>R. Toolin (UVM)</b> and S. McKay (UM)
8/2018 - 8/2022	National Science Foundation. IRES Track I: US-Japan (UVM-Yamagata University) Collaboration on Organic Electronics Research and Education		PI: Matthew White <b>Project Evaluator: R. Toolin</b>

### PENDING FEDERAL PEER REVIEWED GRANTS – N = 6 Requests = \$105,264,101.00

Award Period	Project Title	Award Request	Role
2023- 2028	National Science Foundation. EPSCOR Track 1 – Study of Online, Collective Knowledge and Stories (SOCKS) Project. Submitted: August 2022	\$20,000,000.00	PIs: Dodds, Danforth, Harp & Lovato <b>Senior Personnel R. Toolin</b>
2023- 2028	National Science Foundation NAIRI - Institute for Automated Bioinspired Cognition (ABC) Submitted: May 13, 2022	\$20,000,000.00	PI: Bongard, UVM; CoPIs: Levin (Tufts), Beer, (Indiana), Kramer (Yale), Walker (ASU), <b>Senior Personnel: R. Toolin</b>
6/2023- 6/2025	Sen. Sanders Congressionally Directed Spending Request — FY2023 University of Vermont Computer Science Graduate Certificate Program Submitted: April 2022	\$587,226.00	<b>PI: R. Toolin</b>
6/2023- 6/2025	Sen. Sanders Congressionally Directed Spending Request — FY2023 Champlain Research Experience for Secondary Teachers – CREST Program Submitted: April 2022	\$276,875.00	<b>PI: R. Toolin</b>

## Regina E. Toolin, Ph.D.

9/2021	Maine Congressional Appropriation - Northeast Integrated Mathematics Partnership to Benefit All PreK-8 Learners Education, University of Vermont	\$32,200,000.00	PI: S. McKay, U-Maine; Five associated faculty: Shihfen Tu, U- Maine; L. Nickerson, UNH; E. Pandiscio, U-Maine; Franziska Peterson, U-Maine; <b>Regina Toolin</b> , UVM
9/2021	Maine Congressional Appropriation - Meeting STEM Teacher Workforce Needs in High-Need Rural Schools	\$32,200,000.00	PI: S. McKay, U-Maine; Five associated faculty: K. McCormack, U- S. Maine; L. Nickerson, UNH; E. Pandiscio, U-Maine; Franziska Peterson, U-Maine; <b>Regina Toolin</b> , UVM
<b>UNIVERSITY PEER REVIEWED GRANTS (Role: PI) – N= 3 Awards = \$47,400.00</b>			
<b>Award Period</b>	<b>Project Title</b>	<b>Award</b>	<b>Role</b>
1/2019 - 12/2019	University of Vermont STEM Education Research Grant. Computer Science Education Collaborative (CSEC)	\$30,000.00	<b>PIs: R. Toolin</b> and R. Erickson Co-PIs: A. Tinkler and L. Dion
2/2013 - 12/2014	University of Vermont CESS Research Grant. The Vermont STEM Education Initiative	\$12,000.00	<b>PI: R. Toolin</b>
1/2006 - 5/2006	Fordham University Faculty Research Grants. Investigating Project-based Inquiry at the Bronx Academy for Math, Science, and Technology	\$5,400.00	<b>PI: R. Toolin</b>

## PUBLICATIONS

### PEER REVIEWED JOURNAL ARTICLES

Perdrial, J. N., Kincaid, D. W., Wheaton, D., Seybold, E. C., Stewart, B., Walls, L., Blouin, M., Toolin, R., & Chorover, J. (Resubmit). Equity, diversity, and community as the basis for critical zone science and education. *Earth's Future*. Impact Factor: 7.26

Toolin, R., Jorgenson, S., & Ratmeyer, S. (2022). STEM touchstones for teacher professional learning: An Analysis of Teacher Content and Pedagogical Content Knowledge in a Place-based Professional Development Program. *Electronic Journal for Research in Science and Mathematics Education*. 26 (2), 32-55.  
Impact Factor: 2.88

## Regina E. Toolin, Ph.D.

- Perdrial, J., Kincaid, D., Wheaton, D., Walls, L., Ul Haq, I., Rizzo, D., Hamshaw, S., Lee, B., Seybold, E., Lewis, G., Toolin, R., Chorover, J. (2021). Why Critical Zone (CZ) science needs team science: Insights from the big data CZ network cluster. *Earth and Space Science Open Archive (ESSOAr)*.
- Toolin, R., Dion, L., & Erickson, R. (2021). The Computer Science Education Collaborative: Promoting computer science teacher education programs for pre-service and in-service teachers. *Journal of Computational Science Education*, 12(1), 2-7.  
Acceptance Rate: 20%
- Toolin, R. & Meyers, H. (2020). An analysis of Noyce scholar personal and professional self efficacy. *International Journal of Social Policy and Education*, 2(9), 17-24.  
Acceptance Rate: 25-35%
- Eisenhardt, S. M., Berlin L., Toolin, R., & Pintauro, S. J. (2015). Online college energy balance course improves determinants of behavior and student knowledge. *Enliven: Journal Dietetics Research and Nutrition*, 1(1), 1-9.  
Impact Factor: 3.0
- Dupigny-Giroux, L.A. Toolin, R., Hogan, S., & Fortney, M. (2012). The satellites, weather and climate teacher professional development program: Making the case for climate and geospatial literacy. *The Journal of Geoscience Education*, 60, 133–146.  
Impact Factor: 2.184
- Toolin, R. & Watson, A. (2010). Students for sustainable energy: Inspiring students to tackle energy projects in their school and community. *The Science Teacher*, 77(4), 27-31.  
Journal Acceptance Rate: 40%
- Toolin, R. & Watson, A. (2010). Conducting sustainable energy projects in secondary science classrooms. *Science Activities*, 47(2), 47-53.  
Journal Acceptance Rate: 60%
- Toolin, R. (2004). Striking a balance between innovation and standards: A study of teachers implementing project-based approaches to teaching science. *Journal of Science Education and Technology*, 13(2), 179-87.  
Impact Factor: 3.969
- Toolin, R. (2003). Learning what it takes to teach science: High school students as teachers for middle school students. *Journal of Science Education and Technology*, 12(4), 457-469.  
Impact Factor: 3.969
- Hewson, P. W., Tabachnick, B.R., Zeichner, K. M., Blomker, K., Meyer, H., Lemberger, J., Marion, R., Park, H., & Toolin, R. (1999). Educating prospective teachers of biology: Introduction and research methods. *Science Education*, 83, 247-273.  
Impact Factor: 6.42

## **Regina E. Toolin, Ph.D.**

Hewson, P. W., Howell, D., Smentek, B., & Toolin, R. (1994). A response to 'Gender issues: Some methodological and theoretical issues'. *International Journal of Science Education*, 16(2), 127-130.

Impact Factor: 2.996

### **PEER REVIEWED BOOK CHAPTERS**

Toolin, R. & White, B. (2014). How loud is too loud? Project-based Inquiry as a Model for Teaching, Learning, and Assessing Science. In *Preparing Excellent STEM Teachers for Urban and Rural High-Need Schools* (pp. 55-59). Indianapolis, IN.

Toolin, R. & Watson, A. (2012). Students for sustainable energy: Inspiring students to tackle energy projects in their school and community. In S. Metz (Ed.), *Fuel for thought: Building energy awareness in grades 9-12* (pp. 293-303). National Science Teachers Association Press.

Miller, F., Toolin, R., & Biral, R. (2010). Women of color and the formation of a science identity. In R. Johnson, & G. Harris (Eds.), *Women of color in leadership: Taking their rightful place* (pp. 365-379). Birkdale Publishers.

Toolin, R. (2008). Infusing technology into project-based inquiry: A study of the Urban Academy for Math, Science and Technology. In P. Fraser-Abder, & R. J. Wallace (Eds.). *Pedagogical issues in science, mathematics and technology education* (Volume 3) (pp. 4-28). New York Consortium for Professional Development.

Toolin, R. (1990). For the Birds. Three lesson unit to study aquatic birds and the significance of the function of color as an adaptive survival strategy. In the *Zoos for Effective Science Teaching Manual*. New York Zoological Society. Sect. III, Unit 16, pp. 1-4.

### **PUBLISHED PEER REVIEWED CONFERENCE PROCEEDINGS**

Dupigny-Giroux, L.A., Toolin, R., Morrissey, L., Fortney, M., Hogan, S., Pontius, J., Berryman, B., Shafer, J., Atkins, N., Shepherd, N., Mote, T. L., & Raphael, M. N. (2012). Enhancing climate change literacy by melding the atmospheric and geospatial sciences. *Conference Proceedings for the American Geophysical Union, Fall Meeting 2012*. Abstract Id. ED12B-05.

Toolin, R. (2006). Pride in our place: Project-based learning at the Public Urban Academy for Math, Science and Technology. *Conference Proceedings of the Northeast Association for Science Teaching*. Amherst, MA.

Toolin, R. (2004). Learning what it takes to teach science: Reaching and recruiting under-represented secondary students in science and science education. *Conference Proceedings of the 12<sup>th</sup> World Congress of Comparative Education Studies*. Havana, Cuba.

## **Regina E. Toolin, Ph.D.**

Hewson, P. W., Zeichner, K. M., Tabachnick, B.R., Blomker, K., & Toolin, R. (1992). A conceptual change approach to science teacher education at the University of Wisconsin-Madison. *Conference Proceedings of the Annual Meeting of the American Education Research Association*, San Francisco, CA.

### **DISSERTATION ABSTRACTS**

Eisenhardt, S. M., Berlin L., Toolin, R., & Pintauro, S. J. (2015). Online college energy balance course improves determinants of behavior and student knowledge. (Doctoral dissertation, University of Vermont).

Anastasia, M., Proulx, R., Toolin, R., Reyes, C., Aiken, J. A., Richardson-Nassif, K., & Carr, F. E. (2009). *Assessment for Learning: Transformation of Teachers' Practices Enacted in Classrooms and Teaching and Learning Communities* (Doctoral dissertation, University of Vermont).

Toolin, R. (1998). The influence of prior knowledge, a science methods course, and student teaching on preservice teachers' developing philosophy and practice of teaching science in elementary school. *Dissertation Abstracts International*, Volume: 59-05, Section: A, page: 1451.; 252.

### **ONLINE PUBLICATIONS**

Toolin, R. (2020). Assessment for instruction: Noyce scholar use of student performance data. *F1000Research* 2020, 9,1322.

Toolin, R. & Blouin, M. (2020). Teachers Conceptions of Place-based Education: Place as Context and Object of Investigation. American Educational Research Association Interactive Presentation Gallery.

Toolin, R., Jorgenson, S., & Ratmeyer, S. (2020). STEM Touchstones as Unifying Principles for Teacher Professional Learning and Change. American Educational Research Association Interactive Presentation Gallery.

Toolin, R., Meyers, H., Farrell, R. (2019). Preservice Teachers' Use of Student Data: A Multiple-Case Study of Noyce Scholar Assessment Practices. AERA Online Paper Repository. <https://doi.org/10.3102/1441044>

Toolin, R. & White, B. (2014). Science and Social Justice: Promoting Authentic Projects in Secondary Classrooms. Study.lib.net.  
<https://studylib.net/doc/15623780/science-and-social-justice--promoting-authentic-projects-...>

### **TECHNICAL REPORTS**

National Science Foundation. Robert Noyce Scholarship Program. Annual Project Performance Reports. Annually – October 2010 to October 2022.



## **Regina E. Toolin, Ph.D.**

Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR-UP). Champlain Research Experience for Secondary Teachers Program. Annual Project Performance Reports. Annually – August 2014 to August 2022.

US Department of Education. Math Science Partnership. Vermont STEM Leadership Institute. Annual Project Reports. Annually – June 2016 and June 2017

US Department of Education. Math Science Partnership. Vermont Secondary Science Program. Annual Project Performance Reports. Annually – June 2010 and June 2011.

### **PEER REVIEWED CONFERENCE PRESENTATIONS**

Toolin, R., & Jorgenson, S. (2022, October). *Liberal, critical and indigenous traditions of place-based education: An analysis of multiple perspectives and practices of place-based education*. [Presentation]. Paper accepted for presentation at the 2022 Curriculum and Pedagogy Annual Conference. Penn State University, PA.

Toolin, R. & Jorgenson, S. (2022, February). *Place-based Education: Understanding the past to envision a more equitable and sustainable future*. [Presentation]. University of Texas RGV STEM Education Consortium. South Padre Island, TX.

Toolin, R. & Meyers, H. (2022, January). *An analysis of Noyce Scholar personal and professional self-efficacy*. [Presentation]. Association for Science Teacher Education Annual Conference. Greenville, SC.

Wheaton, D., Toolin, R., Lewis, C., & Walls, L. (2021, December). *Cultivating Collaboration: The Practice and Process of Building Equitable and Effective Multi-institutional STEM Education, Research, and Outreach Teams*. [Session conveners]. American Geophysical Union Annual Conference, New Orleans, LA.

Toolin, R., Wheaton, D., Walls, L., Lewis, C., Jackson, J., Perdrial, J., & Rizzo, D. (2021, December). *Co-creating Collaborative and Transformative Educational Partnerships in Critical Zone Science*. [Presentation]. American Geophysical Union Annual Conference, New Orleans, LA.

Perdrial, J., Rizzo, D., Toolin, R., Wheaton, D., Walls, L., Kincaid, D., Haq, Ijaz Ul., Hamshaw, S., Lee, B., Seybold, E., Lewis, G., and Chorover, J. (2021, December). *Why Critical Zone (CZ) science needs team science: Insights from the big data CZ network cluster*. [Presentation]. American Geophysical Union Annual Conference, New Orleans, LA.

Jorgenson, S. and Toolin, R. (2021, October). *Was Dewey a Place-based Educator? Reexamining Dewey in Light of Contemporary Frameworks*. [Presentation]. John Dewey Society Annual Conference. Burlington, VT.

Toolin, R. (2021, October). *Meeting the Challenge of Place-Based Professional Learning in a Remote Online World*. [Presentation]. Northeast Association for Science Teacher Education Regional Conference.

## **Regina E. Toolin, Ph.D.**

Toolin, R., Dion, L., & Erickson, R. (2021, June). *The Computer Science Education Collaborative: Promoting Computer Science Teacher Education Programs for Preservice and In-service Teachers*. [Presentation]. Virtual RISE Conference at the University of Maine.

Brown, R., Dion, L., Drescher, P., Erickson, R., & Toolin, R. (2021, May). *Broadening Educator Expertise through UVM's Computer Science Certificate Program*. [Presentation]. Dynamic Landscapes Virtual Conference.

Toolin, R., Perdrial, J., Walls, L., & Blouin, M. (2021, February). *Co-creating Collaborative and Transformative Educational Partnerships in Critical Zone Science*. [Presentation]. Engaged Scholarship & Learning at UTRGV Conference.

Toolin, R. (2020, October). *Secondary teachers' conceptions and practices of place-based education*. [Presentation]. Northeast Association for Science Teacher Education Virtual Conference.

Toolin, R. (2020, August). *UVM's Robert Noyce Scholarship Program: Improving STEM recruitment and retention efforts in high need schools*. [Poster]. NSF Robert Noyce Scholarship Program Virtual Summit.

Toolin, R., Jorgenson, S., & Ratmeyer, S. (2020, April). *STEM Touchstones as Unifying Principles for Teacher Professional Learning and Change*. [Presentation]. American Educational Research Association Conference. San Francisco, CA.

Toolin, R. & Blouin, M. (2020, April). *Teachers Conceptions of Place-based Education: Place as Context and Object of Investigation*. [Presentation]. American Educational Research Association Conference. San Francisco, CA.

Millay, L, McKay, S., Peterson, F., Lindsay, S., Nickerson, L., Toolin, R. (2020, March). *Connecting middle and high school teachers with big data and quantitative reasoning in the context of New England forests*. [Poster]. Maine Environmental Education Association Conference. Belfast, ME.

Toolin, R. (2020, January). *Creating a computer science education collaborative in Vermont*. [Presentation]. Hawaii International Conference in Education. Honolulu, HI.

Toolin, R. (2020, January). *Noyce scholar use of student performance data to inform instruction*. [Presentation]. Hawaii International Conference in Education. Honolulu, HI.

Toolin, R. (2019, October). *Secondary teachers' conceptions of place-based education*. [Presentation]. Curriculum and Pedagogy Annual Conference. McAllen, TX.

Toolin, R. (2019, April). *Preservice teachers use of student performance data: A multiple case study of Noyce scholar assessment practices*. [Presentation]. American Educational Research Association. Toronto, Canada.

## **Regina E. Toolin, Ph.D.**

Toolin, R. (2019, February). *Promoting project and place-based professional learning in high need schools*. [Presentation]. University of Texas Rio Gran Valley STEM Education Conference. McAllen, TX.

Toolin, R., Jorgenson, S., and Ratmeyer, S. (2019, January). *STEM touchstones for professional learning: Meeting the challenge of STEM professional development in high need schools*. [Presentation]. Association for Science Teacher Education International Conference. Savannah, GA.

Toolin, R & Blouin, M. (2018, January). *The standard comes first: Place-based teaching and the Next Generation Science Standards*. [Presentation]. Association for Science Teacher Education Annual Conference. Baltimore, MD.

Toolin, R. (2018, July). *The University of Vermont Robert Noyce Scholarship Program: Program challenges and successes*. [Poster]. National Science Foundation Robert Noyce Scholarship Program Annual Summit. Washington, DC.

Toolin, R. (2018, October). *Touchstones for teacher professional learning: Promoting place-based STEM education in rural schools*. [Presentation]. Curriculum and Pedagogy Annual Conference. New Orleans, LA.

Toolin, R. (2017, July). *Recruitment and efficacy of the Robert Noyce Scholarship Program*. [Poster]. Robert Noyce Scholarship Program Annual Summit. Washington, DC.

Toolin, R., Jorgenson, S., Rizzo, D., Blouin, M., Ratmeyer, S., & Meyers, H. (2017, April). *The VSTEM leadership Institute: Meeting the challenge of STEM professional development in high need schools*. [Presentation]. American Educational Research Association Annual Meeting. San Antonio, TX.

Toolin, R. (2016, October). *VSTEM Leads: Promoting place, projects and leadership in high need schools*. [Presentation]. Northeast Association for Science Teacher Education Annual Conference. Columbia University, New York, NY.

Toolin, R. (2016, July). *Recruitment and efficacy of the Robert Noyce Scholarship Program*. [Poster]. NSF Robert Noyce Scholarship Program Annual Summit. Washington, DC.

Toolin, R. (2016, June). *Updates on the Vermont STEM Collaborative*. [Presentation]. Association for Public Land-grant Universities SMTI Conference, San Antonio, TX.

Toolin, R. Tinkler, A, Demarest, A. (2016, April). *CREST touchstones for teacher professional learning*. [Presentation]. American Educational Research Association Annual Meeting. Washington, DC.

Toolin, R., Tinkler, A. & Demarest, A. (2015, October). *Touchstones for STEM professional learning: Promoting project based, place-based and proficiency-based education*. [Presentation]. American Association for Teaching and Curriculum Annual Meeting. Portland, OR.

## **Regina E. Toolin, Ph.D.**

Toolin, R. (2015, October). *The Vermont STEM Collaborative*. [Presentation]. Northeast Association for Science Teacher Education Regional Meeting. Columbia University, NY, NY.

Toolin, R. (2015, June). *The Vermont STEM Collaborative*. [Presentation]. Association for Public Land-grant Universities SMTI Conference, New Orleans, LA.

Toolin, R. (2015, March). *Recruitment and retention efficacy of UVM's Robert Noyce Scholarship Program*. [Presentation]. NSF Robert Noyce Scholarship Regional Conference. Boston, MA.

Toolin, R. (2015, January) *The Champlain Research Experience for Secondary Teachers - CREST*. [Presentation]. Association for Science Teacher Education Annual Meeting. Portland, OR.

Toolin, R. (2014, October). *The Champlain Research Experience for Secondary Teachers - CREST*. [Presentation]. Northeast Association for Science Teacher Education Annual Conference. Columbia University, New York, NY.

Toolin, R., White, B. & Flank, S. (2014, January). *Educate to innovate in science teacher professional development: The University of Vermont Robert Noyce Scholarship Program*. [Presentation]. Association for Science Teacher Education Annual Meeting. San Antonio, TX.

Toolin, R. And Dupigny-Giroux, L.A. (2013, April). *Satellites, Weather and Climate (SWAC) Teacher Professional Development Program: Advocating for climate and geospatial literacy*. American Educational Research Association. San Francisco, CA.

Toolin, R. (2013, January). *The University of Vermont Robert Noyce Scholarship Program: Recruitment and program efficacy*. [Presentation]. Association for Science Teacher Education Annual Meeting. Charleston, SC.

Dupigny-Giroux, L.A. and Toolin, R. (2012, January). *The Satellites, Weather and Climate (SWAC) Teacher Professional Development program: Making the case for climate and geospatial literacy*. [Presentation]. Association for Science Teacher Education Annual Conference. Clearwater, FL.

Toolin, R. and Sithole, D. (2011, April). *Using student consultations to develop a middle school-based project for post-secondary success*. [Presentation]. American Educational Research Association. New Orleans, LA.

Toolin, R. (2011, January). *The University of Vermont Robert Noyce Scholarship Program: The challenge of recruitment and retention in science education*. [Presentation]. Association for Science Teacher Education. Minneapolis, MN.

Toolin, R. (2011, January). *Vermont Secondary Science Partnership (VSSP): Developing effective and authentic partnerships in science education*. [Presentation]. Association for Science Teacher Education. Minneapolis, MN.

## Regina E. Toolin, Ph.D.

Shane, J., Toolin, R. & Peterson, J. and Pederson, J. (2010, March). *The state of science teacher education: Updates and opportunities for political advocacy with NSTA and ASTE*. [Panel Presentation]. National Science Teachers Association. Philadelphia, PA.

Shane, J., and Toolin, R. (2010, January). *Political advocacy in science teacher education*. [Presentation]. Association for Science Teacher Education. Sacramento, CA.

Toolin, R. , Dupigny-Giroux, L. and Waterman, R. (2010, January). *Teamwork and collaboration within the Vermont Secondary Science Partnership Program*. [Presentation]. Association for Science Teacher Education. Sacramento, CA.

Downes, J. & Toolin, R. (2009, April). *Partnering with students in middle grades teacher professional development*. [Presentation]. American Educational Research Association. San Diego, CA.

Toolin, R. and Watson, A. (2009, January). *Community-based energy projects at Mountain High School*. [Presentation]. Association for Science Teacher Education. Hartford, CT.

Toolin, R. & Downes, J. (2008, October). *University of Vermont GEAR UP Program: Learning about post-secondary access in the middle grades*. [Presentation]. Association for Science Teacher Education Northeast Regional Meeting. Dingmans Ferry, PA.

Toolin, R. (2008, April). *Smaller is smarter: Technology enriched project-based inquiry at a small, public urban academy*. [Presentation]. National Association for Research in Science Teaching.

Toolin, R and Flank, S. (2008, January). *A tale of two city schools: Supporting project-based inquiry in secondary science education*. [Presentation]. Association for Science Teacher Education. St. Louis, MO.

Toolin, R and Dupigny-Giroux, L. (2007, October). *Community-based learning and project-based learning in the first-year college experience*. [Presentation]. Association for Science Teacher Education Regional Meeting. University of Massachusetts, Amherst, MA.

Toolin, R. (2007, April). *Infusing technology into project-based inquiry: A study of the urban academy for math, science and technology*. [Presentation]. American Educational Research Association. Chicago, IL.

Toolin, R. (2007, January). *The role of technology in the project-based inquiry classroom: A study of the Urban Academy for the Future*. [Presentation]. Association for Science Teacher Education. Clearwater Beach, FL.

Toolin, R. (2006, April). *Pride in our place: Project-based learning at a public Urban Academy for Math, Science and Technology*. [Presentation]. American Educational Research Association. San Francisco, CA.

Toolin, R. (2006, April). *Creating collaborative project-based curriculum at an urban public academy for math, science and technology*. [Presentation]. National Association for Research in Science Teaching. San Francisco, CA.

## **Regina E. Toolin, Ph.D.**

Toolin, R. (2005, May). *Project-based learning on the Great South Bay: A study of the summer science and math experience for African-American and Latino high school students*. [Presentation]. Sharing Our Success in Urban Science and Math Teaching Conference. New York University. New York, NY.

Toolin, R. (2005, April). *Closing the diversity gap in science and math teaching: A study of the summer science and math experience for African American and Latino High School Students*. [Presentation]. National Association for Research in Science Teaching. Dallas, TX.

Toolin, R. (2004, October). *Learning what it takes to teach science: Reaching and recruiting under-represented secondary students in science and science education*. [Presentation]. The 12<sup>th</sup> World Congress of Comparative Education Studies. Havana, Cuba.

Toolin, R. (2004, April). *Learning what it takes to teach science: High school students as science teachers for middle school students*. [Presentation]. American Educational Research Association, San Diego, CA.

Toolin, R. (2003, April). *Breathing life into a new school: Creating science curriculum and pedagogy in a small urban high school*. [Presentation]. American Educational Research Association. Chicago, IL.

Rosso, R. J., Megehee, E.J., Toolin, R. and Cantelmo, F. (2003, September). *Summer Science Experience 2002: Encouraging minority students to pursue careers in science and education*. [Presentation]. 226<sup>th</sup> American Chemical Society National Meeting, New York, NY.

Toolin, R. (2002, October). *Reaching and teaching tomorrow's science teachers today*. [Presentation]. Northeast Association for the Education of Teachers of Science Regional Meeting. Syracuse, NY.

Toolin, R. (2002, April). *Forming a Community of Science Educators (COSE)*. [Presentation]. American Educational Research Association. New Orleans, LA.

Toolin, R. (2001, April). *Designing science professional development for urban middle schools and high schools: A study of teachers implementing project-based approaches to teaching science*. [Presentation]. American Educational Research Association. Seattle, WA.

Toolin, R. (2000, October). *A Case Study of H.S. Science teachers implementing project-based approaches to teaching science*. [Presentation]. Association for the Education of Teachers of Science Regional Meeting. Syracuse, NY.

Toolin, R. (2000, April). *Doing service in science: A study of urban, middle school students engaged in a service learning recycling project*. [Presentation]. American Educational Research Association. New Orleans, LA.

Toolin, R. (2000, April). *Service and expeditionary learning in the science classroom*. [Presentation]. National Association for Research in Science Teaching. New Orleans, LA.

## **Regina E. Toolin, Ph.D.**

Toolin, R. and Sims, C. (1999, April). *Fostering applied and service learning in an urban, middle-school inquiry-based science classroom*. [Presentation]. National Association for Research in Science Teaching. Boston, MA.

Toolin, R. and Sims, C. (1999, April). *Within normal limits: Applied and service learning principles in an urban, middle-school inquiry-based science classroom*. [Presentation]. American Educational Research Association. Montreal, Canada.

Toolin, R. (1998, April). *Tensions, complexities, and influences on pre-service teachers' knowledge of science and teaching science*. [Presentation]. American Educational Research Association. San Diego, CA.

Toolin, R. (1998, April). *The influence of prior knowledge, a science methods course, and student teaching on pre-service teachers' developing philosophy and practice of teaching science in elementary school: A case study of Beth*. [Presentation]. National Association for Research in Science Teaching. San Diego, CA.

Toolin, R. (1995, April). *Teaching science in elementary school: A narrative of a pre-service teachers' perspectives about science and science teaching*. [Presentation]. National Association for Research in Science Teaching. San Francisco, CA.

Toolin, R., J. Lemberger & P.W. Hewson. (1993, April). *Conceptions of biology brought to teacher education by prospective secondary teachers*. [Presentation]. National Association for Research in Science Teaching. Atlanta, GA.

Hewson, P.W., Zeichner, K.M., Tabachnick, B.R., Blomker, K. & Toolin, R. (1992, April). *A conceptual change approach to science teacher education at the University of Wisconsin-Madison*. [Presentation]. American Educational Research Association.

### **INVITED PRESENTATIONS**

Toolin, R. (2022, May). *Place-based Education: Multiple Perspectives, Principles and Practices in the Design of Preservice and In-service Teacher Professional Learning Programs*. [Invited Presentation]. Cary Institute of Ecosystem Studies. Millbrook, NY.

Toolin, R. (2018, May). *Models of Project-based Learning in STEM Teacher Education*. [Invited presentation]. Teachers College, Columbia University.

Toolin, R. and White, B. (2012, October). *Project-based Inquiry as a Model for Teaching, Learning and Assessing Science in Grade 7-12 Classrooms*. [Invited workshop]. Robert Noyce Regional Conferences. Indianapolis, IN. Boston, MA.

Meyers, B., Bishop, P., and Toolin, R. (2009, October). *Resources for project-based partnerships and professional development*. [Presentation]. Vermont School Boards Association/Vermont Superintendents Association. Fairlee, VT.

## **Regina E. Toolin, Ph.D.**

Toolin, R. (2004, December). *Improving mathematics, science and technology Education for girls and women k-12: Next steps for policy and action*. [Invited Presentation]. Righting the Angle Conference. Marymount College of Fordham University. Tarrytown, NY.

Toolin, R. (2004, November). *Project-based learning on The Great South Bay: A study of the summer science and math experience for African American and Latino High School Students*. [Invited Presentation]. Fordham University Graduate School of Education. Doctoral Research Seminar.

Toolin, R. (2003, May). *Reaching and teaching tomorrow's science teachers today*. [Invited Presentation]. St. John's University Annual Women in Science Meeting. New York, NY.

Toolin, R. (2002, June). *Doing investigative science in the bilingual classroom*. [Invited Presentation]. St. John's University Bilingual Education Conference. New York, NY.

Toolin, R. (2001, March). *The New Regents in the Living Environment Curriculum*. [Invited Presentation]. Archdiocese of New York Teacher In-service. New York, NY.

Toolin, R. (2000, February). *New Standards in Practice*. [Invited Presentation]. Pace University Teacher Opportunity Corps. New York, NY.

Toolin, R. (1999, October). *Instructional models to promote critical thinking and problem-solving in middle school students*. [Invited Presentation]. Greenburgh Central School District Superintendent's Conference Day. Greenburgh, NY.

Toolin, R. (1999, August). *Active Learning in the middle school classroom: Instructional models to promote problem-solving in middle school students*. [Invited Presentation]. The National Middle School Conference. Purchase, NY.

Toolin, R. (1999, February). *Developing a Critical Perspective of Standards-based Teaching*. [Invited Presentation]. Pace University Teacher Opportunity Corps. New York, NY.

Toolin, R. (1998, November). *Standards in practice: Case studies of urban high school teachers implementing standards in their teaching practice*. [Invited Presentation]. The New York Times. Education Department. New York, NY.

Toolin, R. (1998, February). *Developing a critical perspective of standards-based teaching*. [Invited Presentation]. Pace University Teacher Opportunity Corps. New York, NY.

Toolin, R. (1997, September). *Inquiry-based and standards-based teaching in K-3 science classrooms*. [Invited Presentation]. Greenburgh School District Superintendent's Conference Day. Greenburgh, NY.

Toolin, R. (1995, October). *Understanding and implementing the New York State Math, Science and Technology Learning Standards*. [Invited Presentation]. Chappaqua School District. Chappaqua, NY.



**WORKSHOPS, SYMPOSIUMS, & INSTITUTES**

Jorgenson, S., Toolin, R., Poleman, W. & Ostensen, A. (2022, March). Preparing the next generation of place-based educators: A working partnership between Shelburne Farms and the University of Vermont. [Workshop]. 11th World Environmental Education Congress. Prague, Czech Republic.

Toolin, R. and Rimal, G (2019, July). Noyce scholar use of student performance data to inform instruction. [Workshop]. NSF Robert Noyce Scholarship Annual Summit. Washington, D.C.

Toolin, R. Champlain Research Experience for Secondary Teachers. Annual week-long teacher institute conducted at UVM's Rubenstein Ecosystem Laboratory. June, 2014 – 2020.

Toolin, R. (2018, June). Integrating the EPSCoR *Streams Project* into the secondary curriculum. [Workshop]. EPSCoR BREE Summer Teacher Institute. St. Michael's College, Winooski, VT.

Toolin, R., Galasso, N., Lynch, B., and Waring, A. (2018, April). Inquiry-based summative assessments in the high school math and science classroom. [Workshop]. Northeast Robert Noyce Scholarship Regional Conference. Brooklyn, NY.

Toolin, R., Fortin, A., Gay, J., Palermo, M., Sarriera, G., & Varga, B. (2015, March). The Next Generation Science Standards and Project-Based Learning. [Workshop]. NSF Northeast Robert Noyce Regional Conference. Boston, MA.

Toolin, R. Math Science Partnership Grant. VSTEM Leadership Institute. July 2015 & 2016 (monthly workshops AY 2015-16, 2016-17). Burlington, VT.

Toolin, R. (2014 & 2015, November). Vermont Science Technology, Engineering and Mathematics Initiative (VSTEM). [Workshop]. Vermont Fest 2013 - I Teach Conference. Killington, VT.

Toolin, R. and Hall, G. (2013, October). The Next Generation Science Standards. [Workshop]. Satellites, Weather and Climate Institute. Burlington, VT.

Toolin, R. (2013, July). Integrating Project-based learning and Understanding by Design. [Workshop]. Satellites, Weather and Climate Summer Institute. Burlington, VT.

Toolin, R. and Sithole, D. (2010 to 2012, June). Post-secondary access and success. [Workshop]. Middle Grades Institute. Vermont.

Toolin, R. and White, B. (2013, May). Science and Social Justice: Promoting Authentic Projects in Secondary Classrooms. [Workshop]. Robert Noyce Scholarship Annual Conference. Washington, D.C.

Computational Thinking and the Inquiry-based Science Classroom. Robert Noyce Scholarship Program and the European Union Pathways Program. Dublin, Ireland, March 9-14<sup>th</sup>, 2013.

## **Regina E. Toolin, Ph.D.**

Toolin, R and White, B. (2012, May). Promoting Project-based Inquiry in Secondary Science Classrooms. [Workshop]. NSF Robert Noyce Scholarship Annual Conference, Washington, D.C.

University of Vermont Delegation to China. Hohhot University, Inner Mongolia, Chufu, Beijing. May 2012.

Toolin, R. and White, B. (2012, May). The University of Vermont Robert Noyce Scholarship Program: Recruitment and program efficacy. [Symposium]. College of Education and Social Services Research Symposium. Burlington, VT.

Toolin, R. (2012, May). GEAR-Up and Close the Gap: Middle school for Post-Secondary success. [Symposium]. College of Education and Social Services Research Symposium. Burlington, VT.

Toolin, R. and Sithole, D. (2011, May). Using student consultations to develop a middle school-based project for post-Secondary success. [Symposium]. College of Education and Social Services Research Symposium. Burlington, VT.

Toolin, R., Fosher, L. and Fortney, M. (2010, May). Project-based learning and the Vermont Secondary Science Partnership. [Symposium]. College of Education and Social Services Research Symposium. Burlington, VT.

Miller, F., Flores, Y., Heading Grant, W., Toolin, R. and Aiken, J. (2010, May). Women of color in leadership. [Panel Presentation]. College of Education and Social Services Research Symposium. Burlington, VT.

Toolin, R.(2009 & 2010, July). Vermont Secondary Science Partnership Program. [Workshop]. Vermont Secondary Science Partnership Workshop. Burlington, VT.

Downes, J. & Toolin, R. (2009, May). Partnering with students in middle grades teacher professional development. [Symposium]. College of Education and Social Services Research Symposium. Burlington, VT.

Toolin, R. (2007, May). Small schools of the future: merging project-based inquiry and technology at the Public Urban Academy for Math, Science and Technology. [Symposium]. College of Education and Social Services Research Symposium. Burlington, VT.

Toolin, R. (2004, January). Academic rigor and the principles of learning. [Workshop]. NYC Public Schools - Region 1 – Math Coaches and Assistant Principal Professional Development. New York, NY.

Toolin, R. (2003, November). Understanding and Implementing the Math Workshop Model. [Workshop]. NYC Public Schools - MS 232 Professional Development Day. New York, NY.

Toolin, R. (2002). Balancing innovation with the Regents Curriculum. Community School [Workshop]. District 2 - Professional Development Day. Baruch College Campus High School. New York, NY.

## **Regina E. Toolin, Ph.D.**

Toolin, R. (2002, March). Bottle Biology and the NYS Math, Science and Technology Learning Standards. [Workshop]. Science is Elementary Conference – SUNY Purchase. Purchase, NY.

Toolin, R. (2001, March). Demystifying the NYS Intermediate Level Science Test (ILST). [Workshop]. Science is Elementary Conference – SUNY Purchase. Purchase, NY.

Toolin, R. (2000, October). Nurturing a Community of Science Educators (COSE): Tips and tools of the trade for new science teachers. [Workshop]. Community School District 2 - Teacher In-service New York, NY.

Toolin, R. (2000, March). Doing project-based science in the middle school classroom. [Workshop]. Science is Elementary Conference – SUNY Purchase. NY.

Toolin, R. (1998, 1999, 2000, July). Science professional development workshops for elementary school teachers. [Workshop]. Science Leadership Institute. SUNY Purchase. NY.

Toolin, R. (1999, June). Instructional models to promote critical thinking and problem-solving in middle school students. [Workshop]. Community School District 1. Middle School Teachers Retreat. Atlantic City, NJ.

Toolin, R. (1999, May). Strategies to integrate science and technology into 3rd and 4th grade unit on immigration. [Workshop]. Dwight D. Eisenhower Science and Technology Teacher Workshop. Columbus Avenue School. Mt. Vernon, NY.

Toolin, R. (1999, March) The Hudson River: Integrating math, science and social studies in the elementary curriculum. [Workshop]. Science is Elementary Conference. SUNY-Purchase. NY.

Toolin, R. (1999, February). Investigating Bottle Biology: Strategies for using recycled bottles for conducting controlled experiments in middle school science. [Workshop]. St. Denis Elementary School - Yonkers, NY.

Toolin, R. (1998, June). District-wide Elementary Science Standards (K-6) aligned with Putnam-Northern Westchester BOCES Science 21 Curriculum. [Workshop]. Wappingers Falls School District Yorktown Heights, NY.

Toolin, R. (1997). Elementary Family Science and Math Night. [Workshop]. Greenburgh School District. Greenburgh, NY.

Toolin, R. (1996, May). Science 21 Designer's In-service. [Workshop]. Board of Cooperative Education Services. Yorktown Heights, NY.

Toolin, R. (1994, April). Gender and Culture in Science. [Workshop]. Girls and Women in Science Conference. Beloit College. Beloit, WI.

Toolin, R. (1992, August). Kids for Biodiversity Teacher In-Service. [Workshop]. University of Wisconsin-Madison Arboretum McKay Center. Madison, WI.

## **Regina E. Toolin, Ph.D.**

Toolin, R. (1992, September). Kids for Biodiversity Teacher Workshop. [Workshop]. Bruce Guadalupe Community School. Milwaukee, WI.

### **PROFESSIONAL SERVICE**

#### **NATIONAL SERVICE**

Editorial Board Member, *Journal of Science Education and Technology*, 2004-2022

American Association for the Advancement of Science Einstein Fellows Review Panel, 2018, 2019

President's Award for Excellence in Mathematics and Science Teaching Review Panel, 2018

National Science Foundation Research Proposal Review Panel, 2009, 2015-18

#### **JOURNAL REVIEWS**

- *School Science and Mathematics Journal*, 2003-2010
- *Journal of Science Education and Technology*, 2004-22
- *Electronic Journal of Science and Mathematics Education*, 2021-22
- Sage Publications, 2021-22

#### **PROFESSIONAL SOCIETIES**

- Association for Science Teacher Education, 2007-2022
  - o Co-Chair, Government and Policy Committee, 2007-12
  - o Oversight Committee Member, 2021-2024
- Northeast Association for Science Teacher Education, 1996-2022
  - o Treasurer – 2005-12
  - o Director – 2016-2020
- American Educational Research Association, 1992-2022
- National Association for Research in Science Teaching, 1992-2008
- American Geophysical Union, 2021-2023
- National Science Teachers Association

#### **Conference Proposal Reviews**

- Association for Science Teacher Education, 2010-20
- Northeast Association for Science Teacher Education, 2016-2019
- American Educational Research Association, 1998-2001, 2006-08
- National Association for Research in Science Teaching, 1998-2000, 2002-08

#### **Conference Session Chair or Discussant**

- Association for Science Teacher Education, 2019
- American Educational Research Association, 2000, 2006, 2018, 2019, 2020
- National Association for Research in Science Teaching, 2000, 2008
- American Geophysical Union - 2021

#### **VERMONT STATE SERVICE**

Vermont Agency of Education Next Generation Science Standards Committee 2015-17

Vermont Agency of Education Statewide Committee on Science Licensure, 2015-16

Teach all Secondary Students (TASS) Steering and Curriculum Committee, 2006-07

## **Regina E. Toolin, Ph.D.**

### **UNIVERSITY OF VERMONT SERVICE**

Information Technology Executive Committee, 2019-20  
Faculty Senate Executive Committee, 2017-20  
President/Provost Senate Advisory Council, 2017-2020  
Faculty Senate Educational Research & Technologies Committee, 2015-2022. Chair - 2017-2020  
Chief Information Officer Search Committee, 2017-18  
Faculty Mentoring Program, 2017-19  
NEASC Accreditation Committee, 2017-19  
Sustainability Curriculum Assessment Committee, 2016-17  
Sustainability Fellows Program, 2015-16  
Institute for the Environment Committee, 2014-15  
Envisioning Environment Committee, 2012-13  
ALANA Recruitment Days, 2006-08  
Diversity Curriculum Review Committee, 2011-2013  
University Committee on Teacher Education, 2011-2018

### **UVM COLLEGE OF EDUCATION AND SOCIAL SERVICES**

Faculty Standards Committee, 2015-19, 2021-22. Chair - 2017-19, 2022  
Open House and New Student Visits, 2007-20  
Doctoral Advisory Committee, 2007-22  
Doctoral Steering Committee, 2020-22  
CESS Research Symposium Planning Committee, 2010-12  
Carnegie Doctoral Planning Committee, 2007-08

### **UVM DEPARTMENT OF EDUCATION**

CAEP (NCATE) Committee, Coordinate Science SPA Reports, 2008-10, 2013-14, 2018-22  
Research Initiatives Committee, 2013-17  
Common Core State Standards Committee, 2012-13  
Elementary Education Search Committee, 2008-09  
Secondary Education Search Committee, 2007-08, 2011-12, 2019-20 (Chair)

### **UVM SECONDARY EDUCATION PROGRAM**

Masters of Arts in Teaching (MAT) in Secondary Education, Program Coordinator, 2012-20  
MAT Steering Committee, 2006-08  
MAT Comprehensive School Partnership Committee, 2007-09

### **UVM DOCTORAL ADVISEMENT – MAJOR ADVISOR**

Jordan Couzo, Doctoral Candidate  
Educational Leadership and Policy Studies  
College of Education and Social Services  
Jennifer Parent, Ed.D., December 2014  
Title: Students' Understanding of Quadratic Functions: Learning from Students' Voices  
College of Education and Social Services  
Educational Leadership and Policy Studies

## **Regina E. Toolin, Ph.D.**

### **UVM DISSERTATION COMMITTEE MEMBER**

Alexandria M Alveshere, Ph.D. Candidate in Chemistry  
College of Arts and Sciences  
Department of Chemistry  
Committee Chair

Simonne Eisenhardt, Ph.D., May 2014

Title: The Effectiveness of An Online, Interactive, College Course in Energy Balance, Designed from A Framework of Behavioral Theories  
College of Arts and Sciences - Department of Nutrition  
Committee Chair

Marion Anastasia, Ed.D., January 22, 2009

Title: Assessment for Learning: Transformation of Teachers' Practices Enacted in Classrooms and Teacher Learning Communities  
Educational Leadership and Policy Studies

Kristy Gallup-Ellis, Ed.D., May 21, 2009

Title: Developing a Commitment to Change through Collaborative Inquiry: What Teachers Need to Know About Reading Comprehension to Engage in Formative Assessment  
Educational Leadership and Policy Studies

### **UVM MASTERS THESIS ADVISEMENT**

Rachael Monosson - Rubenstein School of Environment and Natural Resources – Thesis Committee Member – 2021-22

Amanda Garland – Rubenstein School of Environment and Natural Resources – Thesis Committee Member – 2010-11

### **UVM TEACHING EXPERIENCE**

#### **UNDERGRADUATE AND GRADUATE COURSES**

EDTE 061 - Foundations of Place-based Education  
EDSC 209 - Internship Practicum  
EDSC 216 - Curriculum, Instruction, and Assessment  
EDSC 226 - Student Teaching Supervision/Seminar  
EDSC 227 - Teaching Science in Secondary School  
EDSC 230 - Teaching for Results Internship Seminar  
EDCI 200 - Champlain Research Experience for Secondary Teachers  
EDCI 396 - INSPIRES Teacher Professional Learning  
EDLP 491 - Doctoral Research

### **TEACHING AND SERVICE - FORMER UNIVERSITIES**

#### **TEACHING**

Observation and Analysis of Teaching

## **Regina E. Toolin, Ph.D.**

Assessment in the Classroom  
Standards and Assessment in Schools Today  
Student Teaching Supervision/Seminar  
Teaching Science in Secondary School  
Science Curriculum and Instruction  
Teaching Math, Science and Technology in Secondary School  
Teaching Science in Elementary School  
Teaching Math and Science in Elementary School  
Teaching Science and Technology in Elementary School

### **SERVICE**

#### **Fordham University - 2004-06**

Coordinator – Science Education Program  
Coordinator – Curriculum and Teaching Master’s Program  
Co-Coordinator – University and School Partnerships Committee  
Member – Professional Development Committee  
Member – University Senate Faculty Life Committee  
Member – NCATE – Re-accreditation Committees

#### **Fordham University - Doctoral Research Advisement**

Christina Hundzynski – Advisor - 2005-06  
Carol Manocchi - Advisor – 2005-06  
Geraldine Mongillo – Committee Member – 2005-06

#### **St. John’s University - 2000-04**

Coordinator – Childhood Education Program  
Member – University Faculty Senate  
Member – Undergraduate Curriculum Committee  
Member – School of Education Faculty Research Forum  
Member – TEAC/NYS Accreditation Committees  
Advisory Board Member – Women in Science Society

### **COMMUNITY AND OTHER SERVICE**

Stockbridge, VT, Town Planning Commission. 2020-2024  
Lewisboro Land Trust, Lewisboro, NY, Advisory Board 2013-21  
Burlington, VT – YWCA, Board Member. 2008-2009  
Westchester Teacher Center, Greenburgh, NY, Policy Board. 1997-2006  
Science Leadership Institute, SUNY Purchase College, Advisory Board. 1998 - 2002  
Science is Elementary Conference, SUNY Purchase College, Advisory Board. 1998-2000