State University of New York College at Old Westbury

Presents

The Thirty-Fourth Annual
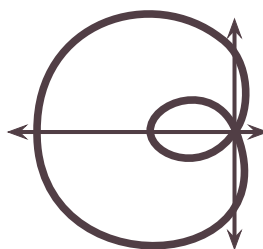
LIMAÇON

Long Island Mathematics Conference

Catalyzing Change

A Step Towards Improving Math Teaching and Learning

Friday, March 13, 2020 – 7:45 A.M. to 2:35 P.M.

at SUNY College at Old Westbury, Campus Center

Co-sponsored by:

The Nassau County Mathematics Teachers' Association

The Suffolk County Mathematics Teachers' Association

The Nassau County Association of Mathematics Supervisors

The Association of Teachers of Mathematics of New York City

To register go to:

www.limathconference.org

LIMAÇON, designed for mathematics educators from primary through university level, provides opportunities for professional interactions and offers a forum for the exchange of concerns, innovative ideas, and achievable goals. This year's conference theme is: *Catalyzing Change: A Step Towards Improving Mathematics Teaching and Learning in Our Schools.*

The **keynote speaker** is **Dr. Robert Q. Berry III**, president of National Council of Teachers of Mathematics (NCTM) and professor at the University of Virginia.

The *Catalyzing Change* series focuses on key recommendations for school mathematics. These recommendations include (1) Defining the purpose of school math, (2) Equitable structures focused on the principles of access, equity, and empowerment, (3) Equitable instruction focused on NCTM's math teaching framework, and (4) Essential concepts focused on the big mathematical ideas across school math.

Session A (10:30 – 11:20)	**Session B** (11:35 – 12:25)	**Session C** (12:40 – 1:30)	**Session D** (1:45 – 2:35)
1. **Activities-Fluency-Mastery** Makoto Yoshida	16. **Number and Numeration** Carole Mulligan	26. **Number Sense and Lines** Linda Burke	36. **Math Excellence/Pedagogy** S. Jefferson-Isaac, Y. Vidal
2. **Math Movement** Jessica Ryan	17. **BEST™ Method - Prob. Sol.** Natasha Murray	27. **Flipgrids, Quizizz, Quizlets** Meridyth Hansen	37. **Catalyzing Change** Nicholas Restivo
3. **Working with Bar Models** Laura Liepa	18. **Scratch, Art, and Math** Alice Braick	28. **Linear Functions** Benjamin Allen	38. **TEACH not TELL the Math** Rudy Neufeld, Jorge Moore
4. **Change the Language** Todd Lindbloom, Kurt Whited	19. **The Anarchy Club** Joe Quinn	29. **Combinations with a Twist** Marion Hutchinson	39. **Two-Color Counter Exper.** Bill Farber
5. **Algebra for Middle Grades** Frank Gardella	20. **Support Struggling Students** Danielle Valentini	30. **Lessons for Understanding** Soowook Lee	40. **Teaching Gifted/Honors** Soowook Lee
6. **Gradeless Math Classroom** Andrew Burnett	21. **Gems of Geometry** John Maus	31. **Prob. Sol., Alg, & Geom. (1)** Paul Schwiegerling	41. **Power of Breakout EDU** Nancy Lin
7. **TI-84 Strategies for CST** Gerald Haber	22. **Cool Limit Problems** Tom Beatini	32. **Geom. Knowledge Building** Peter Hayes	42. **Keys to Regents Success** Dana Morse
8. **Sparking Curiosity - Desmos** Terence Fitzgibbon	23. **Manipulatives in Math** Jon DeLise	33. **Controversial Facts in Math** Mike Riccardo	43. **Prob. Sol., Alg, & Geom. (2)** Paul Schwiegerling
9. **Geom., Alg. and Technology** Amy Longo, John Watson	24. **Coaching Cognitive Demand** Jeanne Shimizu	34. **Engagement Strategies** Mindy LiBassi	44. **Mass Point Geometry** Ronald Cavallaro
10. **A Financial Math Course** Michelle Sugrim	25. **Math Modeling Pedagogy** Hoyun Cho	35. **What is a Good Teacher** Kathleen Maiorini	45. **Discovery Learning Math** Kimberly Dwyer
11. **Solving AMC Problems** Lihong Cheng			46. **Symmetries with i** Frank Sanacory
12. **Calculus with CAS** Ken Collins			47. **Cutting into Cones et al** Robert Andersen
13. **Solving Problems to Learn** Jamar Pickreign			48. **History of Math** Brian Evans
14. **Mult. & Divide Fractions** Elliott Bird			49. **Special Origami Solids** Jeanne Shimizu
15. **Preparing Lesson Plans** Audrey Bellovin			50. **Educational Technology** Jay Murphy

7:45 - 8:30	CHECK-IN, CONTINENTAL BREAKFAST
8:45 - 9:15	INTRO by L.I. Mathematics Conference Board and DR. JONG PIL LEE Scholarship Awardees
9:15 - 10:15	KEYNOTE ADDRESS by **Dr. Robert Q. Berry III**
10:30 - 2:35	SESSIONS A-D see schedule (all presentations held in the New Academic Building)
	BUFFET LUNCHEON during either session B or C
7:45 - 1:45	EXHIBITOR BOOTHS AVAILABLE

1. **From Activities & Games to Fluency & Mastery**   **Makoto Yoshida (K-2)**   **AMTNJ**
Hands-on workshop. Learn how to engage students in a meaningful practice of math facts that lead to long-lasting mastery and fluency.

2. **Math Movement!**   **Jessica Ryan (2-5)**   **Lynbrook SD/Molloy College**
If you are looking for how to integrate multisensory activities into your math block, look no further! This workshop focuses on how to engage students using math manipulatives and games to allow students to EXPERIENCE math.

3. **Solving Problems with Bar Models**   **Laura Liepa (3-5)**   **Seaford Harbor School**
This workshop will cover the methodology and rationale for using bar models to solve a variety of word problems. Participants will learn practical strategies for helping their students use the bar modeling techniques effectively.

4. **Leave the Math, Change the Language**   **Todd Lindbloom & Kurt Whited (K-8)**   **Pearson**
Learn ways to invite every student to the table with language strategies that lower the barrier to access. These strategies are based on research from NCTM and the Council of Great City schools ELL framework.

5. **Algebra for the Middle Grades**   **Frank Gardella (6-8)**   **Hunter College – CUNY**
An accurate sequence of algebraic topics through the middle grades could have students ready for an Algebra 1 course while having developed a deep understanding of the topics before addressing the formalism of Algebra.

6. **A Gradeless Math Classroom in a School that Requires Grades** **Andrew Burnett (6-12)**   **FA Day Middle School - Newton, MA**
Change your students' focus from grades to understanding the material. I will take you through the steps that I have used for the past three years to make a gradeless classroom a reality in a school that still requires grades.

7. **TI 84 Strategies for the Math CST**   **Gerald Haber (7-12)**   **St. John's University**
If you are having difficulty passing the CST and are not proficient with the TI 84, this workshop will give you some additional strategies for the test. A TI 83+ or 84 is required.

8. **Sparking Curiosity with Desmos**   **Terence Fitzgibbon (9-12)**   **Chaminade H.S.**
The Desmos platform offers an environment for crafting rich mathematical experiences. BYOD and learn how to leverage this powerful, free technology. The session focuses on H.S. content, but the principles apply across all levels.

9. **Geometry, Algebra and Technology - They Do Work Together**   **Amy Longo & John Watson (9-12)**   **Wantagh Public Schools**
Geometry and technology go hand in hand to make the material "real". Various apps and websites will be explored, and participants will leave with ideas to use in the classroom the next day.

10. **Creating a Financial Math Literacy Course**   **Michelle Sugrim (9-12)**   **Business Technology Early College H S**
Discussing an outline of topics and relevant project-based learning ideas for a Financial Math Literacy class. Topic and projects will include budgeting, payroll, taxes, financial decision making, excel applications, and career interests.

11. **Strategies in Solving AMC Problems**   **Lihong Cheng (9-12)**   **Glen Cove High School**
Solving AMC 8-12 problems can be challenging. Proper strategies will help students to solve the problems and raise the interest in participation.

12. **Using CAS to Help Students Understand Calculus Theorems**   **Ken Collins (9-College)**   **Charlotte Latin School**
CAS can provide an environment where students can explore the components of a conceptual problem or theorem and receive immediate feedback on their conjectures. We will share examples using these ideas with classroom ready documents.

13. **Solving Problems to Learn, Not Learning to Solve Problems**   **Jamar Pickreign (General)**   **SUNY Plattsburgh**
Examine and discuss the role of problem solving in learning. Participants will have opportunity to try a variety of problems and discuss their implications in learning mathematics.

14. **Multiplying and Dividing Fractions - Meaningfully**   **Elliott Bird (General)**   **Long Island University - C.W. Post**
Balancing concepts and procedures, students can become fraction fluent. Make connections from multiplication and division of whole numbers to multiplication and division of fractions in a sense-making way. We'll discuss how.

15. **Preparing a Lesson Plan**   **Audrey Bellovin (Pre-service)**   **Hemlock School, Garden City**
Lesson plan is an important part of teaching and learning. Learn how to prepare a lesson plan that includes the most important elements: what students need to know, understand and are able to do as a result of your instruction.

16. **Number and Numeration**   **Carole Mulligan (PreK-K)**   **NYU, retired**
This workshop will allow participants to revisit the components of number & numeration through the lens of a child centered instructional approach.

17. **The BEST™ Method for Problem Solving**   **Natasha Murray (3-8)**   **University of Pennsylvania**
Come learn about the BEST method for problem solving, how it works, and how to teach it to your students.

18. **The Interface of Scratch Programming, Art, and Mathematics**   **Alise Braick (6-8)**   **IS 392**
A tour of a comprehensive standard-based unit plan that integrates coding with mathematics and art. Walk away with lesson plans, assessments, plugged and unplugged activities, rubrics, resources and more!

19. **The Anarchy Club**   **Joe Quinn (6-8)**   **Founder of Hypothesis**
I'll share a lesson that teaches infinite cardinality from fundamental principles using full-body games.

20. **Strategies to Support Struggling Learners in Regents Courses**   **Danielle Valentini (6-12)**   **Herricks High School**
Regents coursework has become more rigorous. Students enter our classrooms with a wide range of abilities. Strategies include differentiated instruction, scaffolding techniques, organizers. Alg 1, Geometry, Alg 2 & MS teachers will benefit.

21. **Gems of Geometry**   **John Maus (9-12)**   **North Shore High School**
This session will explore different components of a geometry lesson that you can use to help students in their journey to understanding.

22. **Using "Cool Problems" to Explore Limits of Sequences**   **Tom Beatini (9-College)**   **Union City Public Schools**
Do sequences have to end? Using free online software, let's explore problems where sequences can model real-world phenomena. See how multiple algebraic representations can be used to promote a deeper understanding of limits.

23. **Manipulatives in the Math Class**   **Jon DeLise (General)**   **Fordham University**
Let's take the edge off of math! See how hands on activities help develop mathematical concepts and motivate learning of mathematics. Materials consist of inexpensive, everyday household items.

24. **Math Literacy: What is the Meaning of "Carry the 1"?**   **Jeanne Shimizu (General Elem.)**   **SUNY College at Old Westbury**
We spend much energy learning "the steps" in math. By examining arithmetic algorithms-both standard and non-standard--using the lens of multiple representations, participants will explore connections and develop meaning(s) for "the steps."

25. **Meaningful Math Modeling Project in a Pedagogy Course**   **Hoyun Cho (Pre-service)**   **Capital University**
Preservice math teachers do not easily understand Modeling with Mathematics. I have created the project, Three Act Math Task, that helps my preservice teachers to understand what Modeling with Mathematics is.

26. Building Number Sense Through the Use of Number Lines   Linda Burke (K-5)   **Garden City UFSD**
Number lines can be powerful tools that help your students develop number sense. This workshop will explore a variety of ways to use number lines in your classroom as a model for mathematical learning.

27. Flipgrids, Quizizz, and Quizlets... Oh My!   Meridyth Hansen (3-8)   **Hauppauge School District**
Enhance engagement and learning through the integration of tech tools like flipgrid, quizizz, quizlet, and others. BYOD and interact with these platforms and others to see what you could start using in your classroom right away.

28. Linear Functions Workshop   Benjamin Allen (6-8)   **NYC DOE - MS 137**
This workshop will present a discovery-style task where students graph linear equations to create a map of a Brooklyn neighborhood, and are then guided through a set of questions encouraging reflection on parallel and perpendicular lines.

29. Combinations with a Twist   Marion Hutchinson (6-8)   **ABGS Middle**
Participants will explore and discover exciting ways to delve into the wealth of information connected to burger restaurants to solidify the concept of creating one of a kind burgers, with endless possibilities.

30. Creating Lessons for Understanding   Soowook Lee (9-12)   **Roslyn High School / ICPS**
In this workshop, we will discuss creating lessons that lead to deeper understanding. Topics will range from Algebra 1 to calculus.

31. Problem Solving, Algebra & Geometry - Part I   Paul Schwiegerling (9-12)   **Buffalo State College**
This workshop is designed to help faculty become better problem solvers and pass these techniques on to their students. Faculty are encouraged to collaborate and share useful thoughts and insight.

32. Geometry = Projects & Knowledge Building   Peter Hayes (9-12)   **Institute for Creative Problem Solving**
Explore and engage more deeply with geometry in this approach that structures "knowledge building" through curriculum-oriented projects.

33. The 12 Most Controversial Facts in Mathematics   Mike Riccardo (6-College)   **Bayside HS/Math for America**
Do you want to start an argument? Try telling somebody that .999... = 1 or that if there are 23 people in your office that there is a 50% chance that two of you share the same birth date. These and other facts will be discussed.

34. Engagement Strategies: Coop. Learning is NOT Group Work   Mindy LiBassi (General)   **Western Suffolk BOCES**
Often group work is used in place of true Cooperative Learning. Studies show that group work is NOT an effective tool for instruction, but true CL is one of the most effective ways to increase student engagement and achievement.

35. What Makes A Good Teacher? Answered by the "Experts"   Kathleen Maiorini (Pre-service)   **Hauppauge High School**
Practical information for new teachers about classroom management, establishing routines and creating relationships. Tips will be presented along with feedback from those who are "experts" in being in a classroom all day - the students.

36. Mathematical Excellence and Culturally Responsive Pedagogy   S. Jefferson-Isaac & Y. Vidal (K-5)   **Northern Parkway School**
Using a model of community and accountability to help empower their Black and Latinx students to reach their highest potential in mathematics.

37. Catalyzing Change by Solving Real (and Interesting) Problems   Nicholas Restivo (3-5)   **MOEMS**
Generate excitement and interest in problem solving. Energize and enrich your curriculum by encouraging students to take risks in solving problems.

38. Multiple Ways to TEACH the Math, not TELL the Algorithm   Rudy Neufeld & Jorge Moore (K-8)   **Understanding Math/Thames Schools**
Understand whole numbers and fractions presented visually online, on paper, with manipulatives and reinforced with games.

39. The Two-Color Counter Experiment   Bill Farber (6-8)   **Mercy College**
This workshop will feature interactive learning experiences designed to be consistent with both CCLS in Math and the Next Generation Science Standards. The activities will help participants disseminate ideas for concretization of math and scientific principles in the classroom.

40. Teaching a Gifted/Honors Class   Soowook Lee (6-12)   **Roslyn High School / ICPS**
Teaching a class for gifted students requires more than moving faster and just handing out challenging problems. In this workshop, we will discuss how to approach such classes and examine successful models to follow.

41. Discover the Power of Breakout EDU   Nancy Lin (7-10)   **Nassau BOCES, S/CDN**
Experience an Algebra 1 physical breakout that ignites your natural drive to problem-solve. Solve puzzles to figure out lock combinations. Escape games combine kinesthetic learning, teamwork & critical thinking into a format students love.

42. Keys to Regents Success   Dana Morse (9-12)   **Texas Instruments**
Prepare your students, and their TI graphing calculators, for success on their high stakes exams. Take a deeper dive into the technology your students are required to use. Build math confidence and improve scores.

43. Problem Solving, Algebra & Geometry - Part II   Paul Schwiegerling (9-12)   **Buffalo State College**
This workshop is designed to help faculty become better problem solvers and pass these techniques on to their students. Faculty are encouraged to collaborate and share useful thoughts and insight.

44. Mass Point Geometry   Ronald Cavallaro (9-12)   **Molloy College**
Introduction to Mass Points as applied to Geometry. Come join the fun and learn how to solve the most difficult problems in high school geometry most easily. If you have never seen or done it, you'll wish you have. Now's your chance.

45. Discovery Learning from Geometry to Calculus   Kimberly Dwyer (9-12)   **Syosset High School**
Learn how to use Kahoot, Quizlet Live, Geogebra and Desmos to get every student involved in your high school math classroom. Specific examples for Geometry and AP Calculus will be illustrated and shared with attendees.

46. Symmetries with i   Frank Sanacory (9-College)   **SUNY College at Old Westbury**
We are all familiar with the symmetries of even and odd functions. Are there other such symmetries? The answer is yes! Infinitely many! We will review complex numbers, their graphing and see these symmetries.

47. Cutting into Cones and Other Things   Robert Andersen (9-College)   **Stony Brook University**
We use a low-cost app, *Quick Graph*, to create a pair of 3D surfaces and see how the various Conic Sections (circle, ellipse, hyperbola and parabola) result from intersecting the cones with planes. We'll find their equations & more.

48. History of Mathematics in the Classroom: A Focus on Cultures   Brian Evans (General)   **Pace University**
This presentation gives a brief overview of the history of mathematics through the contributions from various cultures and will provide ideas for using mathematics history to motivate students.

49. A Special Kind of Origami: To Create Platonic Solids   Jeanne Shimizu (General)   **SUNY Old Westbury**
We will use paper tape and a specific math-based folding technique to create Platonic solids.

50. Educational Technology for the Math Classroom   Jay Murphy (General)   **Deer Park Public Schools**
Create a student centered 21st century classroom with teacher created educational technology solutions perfect for math classrooms.

Directions to SUNY College at Old Westbury

BY CAR: SUNY College at Old Westbury is located immediately north of the Long Island Expressway (495) in the Village of Old Westbury, Long Island, approximately 30 miles east of New York City.

The main entrance to the College is located on the west side of Route 107 approximately one-half mile north of Jericho Turnpike.

BY TRAIN: The Long Island Railroad stops at the Hicksville station. Train schedule and route information are available from the LIRR, 516-822-LIRR. Bus service is available to and from the Hicksville station Monday through Friday. Bus schedule information may be obtained from the MTA Info Center, 516-222-1000.

BY BUS: The College is accessible by bus via MTA bus route N20, which travels between Main Street, Flushing and the Hicksville railroad station along Northern Boulevard and Route 107. The bus connects with other MTA buses at various connecting points along Northern Boulevard and elsewhere. Call the MTA Information Center (number above) for schedule and additional route information.
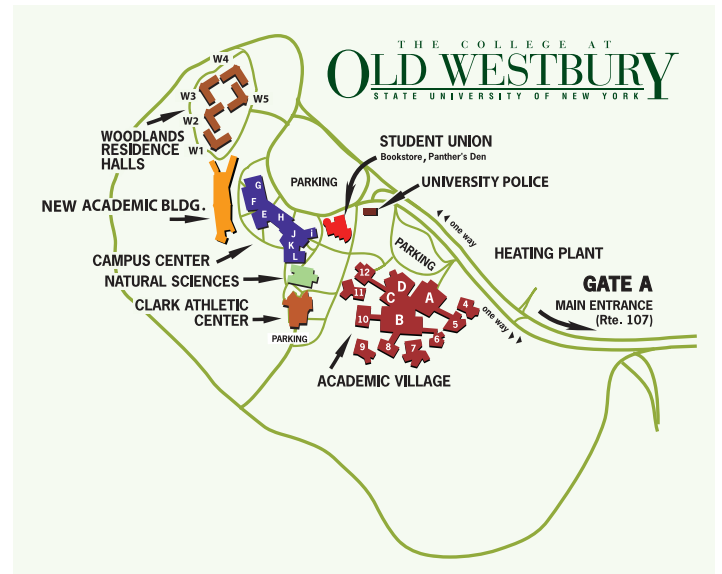
To register go to:

www.limathconference.org

When using a GPS device please make sure that it takes you to the main entrance off route 107.

Cost of Conference

Fee includes Continental Breakfast and Luncheon

Payment Options
Choose one that applies

$50 for members of one of the following –
ATMNYC, NCAMS, NCMTA, SCMTA

$60 for nonmembers

$25 for full-time students

$10 additional fee for signing up on
Conference day (cash or check only)

At the website you can select your preferred payment method

Credit Card via Eventbrite

School Purchase Order (PO)

Lunch Menu

#51 Chef Salad (no ham)

#52 Vegan/gluten free platter baby spinach with roasted vegetables)

#53 Tuna Salad

#54 Egg Salad

#55 Chicken Salad

All Salads are served on a bed of romaine lettuce with additional toppings available.