



2011 ATOMIC Conference

November 29, 2011
Crowne Plaza
Cromwell, CT

www.atomicmath.org

Keynote Speaker – Steve Leinwand

“The Common Core State Standards for Mathematics: Hopes, Fears, and Challenges”

Steve Leinwand is a Principal Research Analyst at AIR and has over 30 years of leadership positions in mathematics education. He currently serves as mathematics expert on a wide range of AIR projects that evaluate programs, develop assessments and provide technical assistance. Leinwand’s work at AIR has included developing specifications and an Algebraic Reasoning item pool for the NCES High School Longitudinal Study; serving as Implementation Task Leader for the IES Mathematics Professional Development Impact Study; co-authoring "What the United States Can Learn from Singapore's World-Class Mathematics System (and what Singapore can learn from the United States"; and co-authoring a comparison of the 2007 Grade 3 assessments administered in Hong Kong and in Massachusetts. In addition, Leinwand has provided school and district-level support and technical assistance for the General Electric Foundation’s Ensuring Futures in Education project and the Microsoft Math Partnership. As part of AIR’s assessment program, Leinwand has overseen the development of multiple-choice and constructed response items for AIR’s contracts with Ohio, Hawaii, Delaware and South Carolina.

Before joining AIR in 2002, Leinwand spent 22 years as Mathematics Consultant with the Connecticut Department of Education where he was responsible for the development and oversight of a broad statewide program of activities in K-12 mathematics education including the provision of technical assistance and professional development, the evaluation of Title 1 and K-12 mathematics programs, the assessment of student achievement and teacher competency, and the coordination of statewide mathematics programs and activities. Steve has also served on the NCTM Board of Directors and has been President of the National Council of Supervisors of Mathematics. Steve is also an author of several mathematics textbooks and has written numerous articles. His books, *Sensible Mathematics: A Guide for School Leaders* and *Accessible Mathematics: 10 Instructional Shifts That Raise Student Achievement* were published by Heinemann in 2000 and 2009 respectively.

Conference Schedule

8:00 – 9:00	Check-in
8:30 – 9:00	Presentation of Rosenbaum Award & Mari Muri Award
9:00 – 10:00	Keynote Speaker: Steve Leinwand
10:15 – 11:15	Session A
11:30 – 12:30	Session B
1:15 – 2:15	Session C
2:30 – 3:30	Session D

A buffet lunch will be served between 12:00 and 2:00 in the Gardens

*There will also a **Poster Room** for graduate students wishing to display their research. If you are interested in presenting a poster, please send an email to GoldbergA2@SouthernCT.edu.



**Directions to Crowne Plaza – Cromwell
100 Berlin Road, Cromwell, Ct 06416**

From North

Follow I-91 South to exit #21 (Rte 372/ Berlin Rd). Take a left at the traffic light and hotel is one block on left.

From South

Follow I-91 North to exit #21. Make a left at the traffic light and hotel will be 1st block on your left.

From East

Follow I-84 West to exit #86 for I-91 South. Drive 10.7 Miles to Exit #21(Route 372 Cromwell). Make a left at the traffic light and the hotel will be 1 block on your left.

From West

Follow I-84 East to exit #52 for I-91 South. Drive 12.8 Miles to Exit #21(Route 372 Cromwell). Make a left at the traffic light and the hotel will be 1 block on your left.



ATOMIC is offering a strand of sessions addressing the Common Core State Standards. See workshop numbers below:

Grades K-2	Session 4
Grades 3-5	Session 34
Grades 6-8	Session 24
Grades 9-12	Session 14

Session A: 10:15 – 11:15

A-1

Formative Assessment in the Life of a Busy Teacher

3-5 Session

This session will focus on assessment strategies that are easily implemented into daily classroom routines. Included will be suggestions for framing questions and tasks to engage students and gather information for instructional planning.

Mari Muri, PIMMS

A-2

Developing Math Instruction that Builds Conceptual Knowledge

6-8 Workshop

Teaching through the use of hands-on and visual materials develops the link for students between concrete and abstract concepts in middle school mathematics. Students need multiple opportunities to engage in math content to better understand key math concepts. Instruction must be a balance between conceptual understanding and procedure. Sample activities aligned to the CCSS for measurement, fraction multiplication/division and linear relationships will be shared.

Peggy Neal, CREC

A-3

The SBAC System – Linking Standards, Assessment, Curriculum & Instruction

General Session

This session will provide participants with an overview of the SMARTER Balanced Assessment Consortium (SBAC) system and information about the implications for mathematics curriculum, instruction, and classroom assessment.

Gail Pagano, CT State Dept of Education

Shelbi Cole, CT State Dept of Education

A-4

Making Sense of the K-2 Common Core State Standards in Mathematics

K-2 Session

Common Core Strand

Curriculum Design Team members will share the process they followed in developing unit templates based on the Common Core State Standards. Participants will have an opportunity to explore and discuss how the documents will impact both instructional practices and curriculum.

Marcia Ferreira, East Hartford Public Schools

Mary Santilli, Trumbull Public Schools

Ann Marie Spinelli, Bristol Public Schools

Kathi St. Onge, Wethersfield Public Schools

A-5

Introduction to the TI-Nspire™ CX Handheld

6-12 Workshop

Participants of this workshop will use a color TI-Nspire™ CX handheld to investigate various middle and high school mathematical concepts. Particular attention will be given to box-plots, histograms and topics relating to modeling with functions. In addition, participants will learn how to download images to the TI-Nspire™ CX handheld. This hands-on workshop is for beginning and experienced TI-nspire users. Handhelds will be provided for use during the workshop.

Edward DePeau, CCSU

A-6**Putting the *Form* in Common Formative Assessments (CFAs)*****3-12 Workshop***

Participants will have the opportunity to learn/use ready-made templates for design of common formative assessments that will guide differentiation of instruction and foster deep understanding of concepts. Assessment items will be created to identify level of misconceptions and the ability to engage in higher-level cognitive/content demand tasks.

Patricia Susla, West Hartford Public Schools

Michelle Graveline, West Hartford Public Schools

A-7**A Transdisciplinary Approach to Teaching and Learning Mathematics with ELLs: Connecting Theory and Practice for Individual Success**
General Workshop

A transdisciplinary approach to mathematics instruction and its impact on increasing academic achievement for all ELLs is introduced. Participants acknowledge recommendations from NCTM/TODOS: Mathematics for All to develop lessons embedded in instructional and assessment procedures as culturally and linguistically based mathematical modeling takes over their practices.

Eliana Rojas, UConn

A-8**Hard Geometry Problems from Contests**
9-12 Workshop

Why is it that even our best students say the geometry problems are the hardest part of the contests? Several of the most recent geometry-based contest problems that have stumped our students are presented and solved. Ease your students' anxiety with practice and show them it isn't really that "hard".

Nina Otterson, The Hotchkiss School

A-9**Mathematical Practices in the Elementary Classroom*****K-5 Session***

This workshop will provide an overview of the Common Core State Standards (CCSS) for Mathematics and will present strategies teachers can use to help their students meet these standards. It will focus on exploring the Mathematical Practice Standards and related problem solving strategies to provide practical examples elementary teachers can implement in their classrooms such as mental mathematics activities, and the use of number lines, Cuisenaire rods, input-output tables and "machines."

Daniel Sidelnick, School Specialty Math

Bruce Katzmire, Consultant

Session B: 11:30 – 12:30

B-11

Come One, Come All to the Measurement Fair!
K-2 Workshop

Young students intuitively are curious about the size of things in the world around them. Come explore classroom-ready, hands-on activities that foster students' development of key measurement concepts and processes, such as using equal-sized units and appropriate measurement tools. Investigate these concepts and processes across various measureable attributes.

Tutita Casa, UConn
Katherine Gavin, UConn

B-14

Making Sense of the High School Common Core State Standards in Mathematics
9-12 Session

Common Core Strand

Curriculum Design Team members will share the process they followed in developing unit templates based on the Common Core State Standards. Participants will have an opportunity to explore and discuss how the documents will impact both instructional practices and curriculum.

Shelbi Cole, CT State Dept of Education
Peggy Neal, CREC
Sharon Heyman, UConn

B-12

CMT Data Analysis – The Fourth Generation of CMT Scores
General Session

This presentation will provide an overview of important analysis tips when interpreting CMT data. User tips will also be shared for using www.ctreports.com to analyze CMT data. Come discover how this website can assist districts in analyzing data.

Abe Krisst, CT State Dept of Education

B-15

Analyzing Student Work: A Powerful Model for Professional Development
3-5 Workshop

How does analyzing student work strengthen teacher content knowledge and promote high-quality mathematics instruction? Explore a professional development model that incorporates a multifaceted approach in building a deep understanding of key mathematical ideas. Discover strategies that focus on analyzing student misconceptions and exploring alternative instructional practices to enhance student achievement.

Debbie Vitale, Bristol Public Schools
Ann Marie Spinelli, Bristol Public Schools

B-13

Get Connected! Differentiation, RTI and Technology in the Math Workshop
General Session

The Math Workshop model allows you to lead, rather than manage, a differentiated classroom. The effective structures you will learn in this session will give you the gift of time! This model gives you time to meet with students of all abilities, time to incorporate technology and time to be a responsive teacher. Connect with your students, your math curriculum and yourself in the math workshop model!

Danielle Legnard, New Canaan PS
Susan Austin, Monroe PS

B-16**Bridging Everyday and Academic Language in Math Classes***6-12 Workshop*

This workshop focuses on strategies to bridge everyday and academic language in math classes for all students, including English language learners. Background and examples will be shared. Participants will develop and discuss language objectives as means to attend to academic language, build mathematical meaning, and support higher order thinking.

Mary Truxaw, UConn**Megan Staples, UConn****B-17****Using Number Talks in the Classroom***3-5 Session*

Children need opportunities to make sense of and reason mathematically in order to build a solid foundation for algebraic reasoning. Using the book, *Number Talks* by Sherry Parrish, we will share a variety of strategies to use with your students to promote mental computation and quantitative reasoning in just 15 minutes a day.

Brenda Dzwil, Newington Public Schools**Kelly Sullivan, Hamden Public Schools****B-18****Developing Proportional Reasoning Skills in Middle School***6-8 Session*

The purpose of this session is to focus on the sense-making of proportionality and proportional reasoning and their connections with measurement and algebra. The session will engage participants with minds-on activities followed by a presentation of different problem-solving strategies and problem based teaching activities for proportionality.

Marie El-Nabbout, SCSU**B-19****The Scoring of the 2011 AP Calculus Free-Response Questions***9-12 Session*

This session will review the changes in the 2011 AP Calculus exam and how the free-response questions were scored.

Robin Kalder, CCSU

Session C: 1:15 – 2:15

C-21

The Art of Thoughtful Questioning *K-5 Workshop*

Questioning is at the very heart of learning. Join us as we view, evaluate, and discuss actual video of teachers at work in using a variety of questioning strategies. See how effective questioning can enhance your lessons and take your learners to a deeper level of knowing, thinking and understanding.

Stacie Broden, Region 15 School District
Kari Yacawych, Region 15 School District

C-22

Differentiating for Your Top Elementary Students: A Practical How-To Session *3-5 Workshop*

Come learn how to challenge and motivate your students along with a variety of ways teachers are doing it, both in and out of school. Participants engage in hands-on activities from the award-winning Project M3: Mentoring Mathematical Minds Grades 3-5 curriculum designed to nurture mathematical talent with a focus on the Common Core Mathematical Practices.

Katherine Gavin, Uconn
Alison Foley, West Hartford Public Schools

C-23

Activities to Enrich the Middle Grades Math Class *6-8 Workshop*

When students build models that connect to the mathematical ideas being taught, they absorb the concepts more concretely. Classroom-tested successful activities, which are accessible to all ability levels, will be shared. This is a hands-on workshop during which participants will create some of these exciting and fun-filled projects.

Lynn Rakatansky, Lesley University

C-24

Making Sense of the Middle School Common Core State Standards in Mathematics *6-8 Session*

Common Core Strand

Curriculum Design Team members will share the process they followed in developing unit templates based on the Common Core State Standards. Participants will have an opportunity to explore and discuss how the documents will impact both instructional practices and curriculum.

Patricia Allen, CREC
Tracey Mayes, SERC
Laura Bohlke, Consol. School District of New Britain

C-25

Making the Math Connection with English Language Learners *General Workshop*

Math may be the universal language, but making it accessible to English language learners requires both an understanding of some principles of human language and some techniques for providing ELLs the connections they need to get into the math content. This workshop will explore both with hands-on, interactive activities.

Matthew Ciscel, CCSU

C-26

Nspire, Navigator, TI-84 Plus, TI-73 Explorer:
What Worked For Our Students in Grades 5-12
5-12 Session

Come see how one school district incorporated all of these TI products into the 5-12 mathematics classrooms. See how it impacted scores, students, teachers, and administrators.

Linda Apicella, Waterbury Public Schools

C-27

Building Number Sense
K-2 Workshop

How do young students develop number sense? Come learn some strategies that help your students as they learn about number and develop number sense. Subitizing, cardinality, place value, addition and subtraction will be topics open for discussion. Lesson ideas and games that reinforce these concepts will be shared.

Karen Moyland, Mansfield Public Schools

C-28

A Short History of Quadratic and Cubic Equations
General Session

In 1600 BCE the Babylonians were solving problems equivalent to $x^2+bx=c$. In this session we will discuss solutions of quadratic and cubic equations from 1600 BCE to 1700 CE. In particular we will look at the historical use of geometric objects and relationships to represent and prove algebraic concepts.

Ross Gingrich, SCSU

C-29

Some Simple Proofs of the Pythagorean Theorem and Some Nice Applications and Generalizations
6-12 Session

The Pythagorean Theorem is as fresh today as when it was discovered thousands of years ago. There have been hundreds of published proofs and there are infinitely many different ways it can be proven. We'll look at some nice geometric and algebraic proofs as well as some applications and generalizations.

Charles Waiveris, CCSU

Session D: 2:30 – 3:30

D-31

Shifting the Locus of Mathematical Control *6-12 Session*

The call to challenge our students to think critically and develop their own understandings and solutions to problems has been made. This requires a shift in the locus of mathematical control from the teacher, as the expert, to the students as partners in the learning process. In this workshop, participants will experience critical thinking and independent learning activities and gain a repertoire of strategies to begin to shift the locus of mathematical control to their students. Prepare to join in and take away solutions that give students a voice, that engage them in their own learning and encourage deep thinking about mathematical problems.

Marlene Lovanio, Bristol Public Schools
Kara Jones, Bristol Public Schools

D-32

Prove It! Focusing on Mathematical Reasoning and the Pythagorean Theorem *6-8 Workshop*

Students may remember $a^2 + b^2 = c^2$, but often forget what it means or know when to apply it. Explore a fun, hands-on approach that encourages metacognitive reasoning and builds a deep understanding of the Pythagorean Theorem. Using inductive and deductive reasoning, these field-tested activities will bring out the real mathematician in your students!

Ann Marie Spinelli, Bristol Public Schools
Katherine Gavin, UConn

D-33

Stories that Count: Great Lessons Based on Great Children's Books *K-2 Session*

Good stories capture children's attention, add understanding, and connect mathematics to their real life experiences or flights of imagination. Explore great children's literature with the award-winning author of poetry and picture books. Lesson plans included.

MW Penn, Author

D-34

Making Sense of the 3-5 Common Core State Standards in Mathematics *3-5 Session*

Common Core Strand

Curriculum Design Team members will share the process they followed in developing unit templates based on the Common Core State Standards. Participants will have an opportunity to explore and discuss how the documents will impact both instructional practices and curriculum.

Brenda Dzwil, Newington Public Schools
Susan Palma, Education Connection
Stacie Broden, Region 15 School District
Patti Hahn, Marlborough School District

D-35

An Introduction to Lesson Study *General Session*

Lesson Study is an innovative professional learning tool that allows teachers to collaborate to study content, instruction, and student learning. Lesson study is recognized by the National Staff Development Council as one of the most powerful designs for building professional learning communities (PLC). Hamden has been involved in Lesson Study for over five years through a series of grants. Come hear an overview of lesson study and see examples of how it was used in a middle school setting.

Betsy Carter, Hamden Public Schools
Jen DeWallace, Hamden Public Schools
Meghan Donovan, Hamden Public Schools
Adam Goldberg, SCSU
Jon Pearce, Hamden Public Schools
Kim Peterson, Hamden Public Schools
Renee Pietrosimone, Hamden Public Schools
John Simone, Hamden Public Schools
Doreen Stohler, Hamden Public Schools

D-36**Making Waves***9-12 Session*

This interdisciplinary math/science presentation focuses on wave characteristics. Presentation will include demonstrations of simple activities to measure wave characteristics including: sand pendulum, ripple tank, slinky and a unique wave generating device. Participants will receive a packet of activities involving data collection, graphing of data and math mathematical analysis.

Carol Paskiewicz, Wethersfield Public Schools

Susan Fennelly, Wethersfield Public Schools

D-38**101 Apps for That!***Pre-K – 8 Session*

Participants will walk away with a list of 101 APPs related to mathematics that can be used now. Key components for evaluating APPs on their educational value will be reviewed. Accompanying resources and websites that support educators using Smartphones, and iPods, iPads. Strategies will be shared on how to use the APPs in whole group, small group, intervention, and enrichment.

Tiffany Deitelbaum, Naugatuck Public Schools

D-37**Building and Strengthening Fact Fluency***K-5 Workshop*

There is more to mastering math facts than taking timed quizzes. This workshop will address specific strategies for building and developing students' fact fluency in addition, subtraction and multiplication. How to use ten-frames to build these skills will be addressed as well as games and electronic resources.

Stacey Daly, Madison Public Schools

Ruth Rose, Madison Public Schools

D-39**Univariate Data and the MAD Statistic***9-12 Workshop*

We live in an increasingly data driven world; this workshop will help students to better navigate that world. We will explore single-variable data numerically and graphically using dot plots, histograms, and box plots. Variability is a key element to understanding data, and we will explore one measure of variability: the MAD statistic. This workshop is appropriate for novice or experienced users of TI-Nspire.

Ron Armontrout, The Hotchkiss School

For your information:

The 2012 NCTM Regional Conference will be held in Hartford, October 24-26. In light of this, there will not be a 2012 ATOMIC Conference.

We look forward to seeing you all in Hartford next year.

2011 ATOMIC FALL CONFERENCE REGISTRATION FORM

Tuesday, November 29, 2011

Crowne Plaza - Cromwell

Visit our web site for the program: www.atomicmath.org

Deadline for Registration: November 22, 2011 ~ No on-site registrations!

Confirmations will be **emailed** for registrations received by November 22, 2011.

Please provide your email below. Please Print (one form per person)

Last Name _____ First Name _____

Mailing Address: Street _____

State: _____ Zip _____ **Email:** _____

Home Phone () _____ Work Phone () _____

Name of School: _____

School Address _____

My School is an ATOMIC member () Yes () No

Registration Fees include Buffet Lunch.

Member: \$75 _____

Non-member: \$100 _____ (includes 1 year membership)

Students: \$35 _____

Retired member: \$50 _____

Please enclose a check payable to: **ATOMIC**.

Mail registration and check to: **ATOMIC, c/o 17 Hammonasset Meadows, Madison, CT 06443.**

~~ All sessions/workshops require tickets ~~

~~ Mark the session number for your workshop requests below ~~

~~ Pick up your tickets at the registration table at the conference ~~

~~ Buffet lunch will be available 12:00 -2:00 pm ~~

Time blocks	Choice #1	Choice #2	Choice #3
8:30 – 9:00 am	Opening Remarks and Recognitions		
9:00 – 10:00 am	Keynote Speaker		
10:15-11:15 am			
11:30 am-12:30 pm			
1:15-2:15 pm			
2:30-3:30 pm			

CEU Equivalents -- ATOMIC is not awarding CEUs for the Annual conference. However, if you would like to apply within your district, all schools have a CEU handbook for their district containing a "CEU Equivalent Credit Verification" sheet. Please bring your district form to the conference and list the sessions you will attend in the appropriate sections. The speakers will sign next to each one in order to verify your attendance at the end of each session. Remember, you must be present for the full sessions in order to gain credit.