



National IBL Conference

IBL
SIGMAA

INQUIRY-BASED LEARNING AND TEACHING IN MATHEMATICS

May 31—June 2, 2018
AT&T Conference Center
University of Texas at Austin
Austin, Texas

Organizing Committee

Brian Katz, Co-Chair	Patrick Rault, Co-Chair
Susan Crook	Chris Rasmussen
Michael Starbird	Christine von Renesse



Thursday, May 31, 2018

- 9:00am-5:00pm On-Site Registration (M1 Lobby)
 1:00-1:35pm Opening Remarks (Zlotnik Ballroom 4)
 Patrick Rault, Brian Katz, and William “Bus” Jaco

Times	Zlotnik Ballroom 4	Zlotnik Ballrooms 5&6	Zlotnik Ballroom 2	Classroom 105	Classroom 103
1:45-3:30pm	Michael Starbird <i>Intro to Inquiry-Based Learning: Mathematics and Beyond</i>	Working Group A Christine Andrews-Larson & Amanda Ruiz <i>Teaching through Inquiry with a Eye toward Equity</i>	Working Group H Alison Marr, Chris Rasmussen, T.J. Hitchman, & Victor Piercey <i>Expansion and Enhancement of IBL: MLI Strategic Planning</i>	Working Group B Doug Corey <i>Lesson Study for College Mathematics Instructors</i>	Working Group G Sharon Karp <i>Blending Inquiry and Classroom Practice</i>

- 3:30-4:00pm Coffee Break (Zlotnik Pre-function Foyer)
 3:30-4:00pm Poster Session Set-up (Zlotnik Pre-function Foyer)
 4:00-4:30pm 5-Minute Reports (Zlotnik Ballroom 4)

Times	Zlotnik Ballroom 4	Classroom 105	Classroom 103	Classroom 104	Classroom 106
4:40-5:05pm	Milo Savic ZEPs <i>Zero Expectation Problems in IBL</i>	Eric Kuennen <i>Problem Based Inquiry in College Algebra</i>	Heather Lynn Johnson <i>Questioning our Questions in Online Math Tasks: From Soliciting Answers to Eliciting Reasoning</i>	Elizabeth Thoren <i>Leveraging Children’s Mathematical Thinking in a Course for Future Elementary Teachers</i>	Diane Ravits <i>Teacher’s Curriculum Studies</i>

- 5:05-7:00pm Cash Bar (Zlotnik Pre-function Foyer)
 5:15-6:15pm Poster Session (Zlotnik Pre-function Foyer)
 6:30-8:30pm Banquet Dinner (Zlotnik Ballroom 4)
 Plenary Session: Hortensia Soto
The Time is Now—We Can & We Should

Note: Submitting Leaders names are reflected in the Program, all others are reflected in the Abstract Booklet.

Classroom 106	Classroom 103	Classroom 104	Classroom 107	Classroom 108
Working Group C Andy Hauk <i>Game-Based and Flipped Instruction Approaches</i>	Working Group D Billy Jackson Alma Ramirez <i>Examining Practice and Research on Inquiry: Oriented Instruction in Courses for Future Teachers</i>	Working Group E Gulden Karakok <i>Math Circles-Inquiry through Problem Solving</i>	Working Group F Elise Lockwood <i>Initial Conversations about Incorporating Computational Thinking and Activity into Mathematics Classrooms</i>	Working Group G Matt Thomas <i>IBL in Statistics</i>

Classroom 107	Classroom 108
Deependra Budhathoki <i>Learning Experiences: Hidden Potential for Teaching Mathematics as Inquiry</i>	Sarah Eichorn <i>An IBL Game Theory Course-Based Undergraduate Research Experience</i>

Friday, June 1

8:00-9:00am Breakfast (Zlotnik Ballroom 5&6)

Times	Zlotnik Ballroom 4	Zlotnik Ballrooms 5&6	Classroom 105	Classroom 103	Classroom 104
9:00-9:25am	Paul Dawkins <i>Student Experiences in IBL Real Analysis</i>	Patrick Rault <i>Laptop Online Live Classroom: IBL in an Introduction to Proofs Class</i>	Constantin Dumitrascu <i>Reflections on Flipping the Introductory Statistics Course</i>	Live Classroom A1 Megan Wawro <i>Discovering Definitions in Inquiry-Oriented Linear Algebra</i>	Live Classroom B2 Alfonso Gracia-Saz <i>Combinatorics by Discovery</i>
9:35-10:00am	Cody Patterson <i>Connecting Real Analysis to Secondary Mathematics Teaching through Inquiry-Based Learning</i>		Celil Ekici <i>Strategic Competence with Representations in Modeling Inquiry-Based Learning of Radicals</i>		
10:10-10:35am	Carolyn Luna <i>The Classroom as Community: Using IBL to Create an Inclusive Learning Environment and Engage Large Classes</i>	Classroom O Face-to-Face Reflection	Victor Piercey <i>Fry Efficiency: An Inquiry-Based Introduction to Algebraic Formulas</i> (Note: Technology Recommended)	Classroom A1 Reflection	Classroom B2 Reflection

10:35-11:05am Coffee Break (Zlotnik Pre-function Foyer)

11:05am-12:05pm MLI Strategic Community Engagement and Round Tables (Zlotnik Ballroom 4)

12:05-1:00pm Lunch (Zlotnik Ballroom 5&6)

1:00-1:30pm 5-Minute Reports (Zlotnik Ballroom 4)

Times	Zlotnik Ballroom 4	Classroom 105	Classroom 103	Classroom 104	Classroom 104
1:40-2:05pm	Matthias Kawski <i>Navajo Math Circles</i>	Sarah Nelson <i>Embodied Activities: Engaging Students via Life Size Exploration</i>	Live Classroom Session A2 Megan Wawro <i>Discovering Definitions in Inquiry-Oriented Linear Algebra</i>	Live Classroom B2 Alfonso Gracia-Saz <i>Combinatorics by Discovery</i>	Promotional Activities
2:15-2:40pm		Sandra Nite <i>Exploring Periodic Functions Created by Sound Waves</i> (Note: Technology Recommended)			
2:50-3:15pm	Navajo Math Circle (Documentary Discussion)	Paul Yu <i>Technology, Inquiry, and Aesthetics in an Interactive Geometric Setting</i> (Note: Technology Recommended)	Classroom A2 Reflection	Classroom B2 Reflection	Classroom B2 Reflection
3:25-3:50pm	Sandra Laursen <i>Messaging in an Educational Movement: Why How we Talk About IBL Matters</i>	Gary Olson <i>Two Graphs are Better than One: Techivities for College Algebra</i> (Note: Technology Recommended)	Mary Flagg <i>Teaching Linear Algebra with Primary Sources</i>	Susanna Molitoris Miller <i>Reconciling Self-Directed Learning and Required Learning Objectives in a Mathematics Content Course</i>	Inquiry to Engage

3:50-4:20pm Coffee Break (Zlotnik Pre-function Foyer)

4:20-5:30pm Common Active Component: Making Inquiry Visible (Zlotnik Ballroom 4)

5:30-6:30pm EAF/MLI Reception (Zlotnik Pre-function Foyer)

Dinner on Your Own

Classroom 104	Classroom 107	Classroom 108
Classroom B1 Enso Gracia-Saz <i>Historics by Discovery</i>	Live Classroom C Michael Starbird <i>Using Puzzles to Illustrate Strategies of Thinking</i>	Live Classroom D Susan Crook <i>Moderating Presentations and Giving Useful Feedback</i>
Classroom B1 Reflection	Classroom C Reflection	Classroom D Reflection

Classroom 107	Classroom 108
Live Classroom E Aaron Wangberg <i>Facilitating Discussion Using Manipulatives in Multivariable Calculus</i>	Live Classroom D Danielle Champney <i>Team-Based Problem Solving</i>
Classroom E Reflection	Classroom F Reflection
Jason Belknap <i>Encouraging and Non-Standard Assessment to Encourage the Development of Key math Practices</i>	

Saturday, June 2, 2018

8:00-9:00am Breakfast (Zlotnik Ballroom 5&6)

Times	Zlotnik Ballroom 4	Classroom 105	Classroom 103	Classroom 104	Classroom 107
9:00-9:25am	Eric Kuennen <i>Using Problem Solving to Motivate Mathematics Content in Courses for Future Math Teachers</i>	Jae Ki Lee <i>Learning Statistics Based on Inquiry Based Learning Strategy</i>	Belin Tsinnajinnie <i>Rehumanizing and Decolonizing Mathematics Through Inquiry-Based Learning</i>	Eileen Perez <i>Implementing IBL in a General Education math Course at an Urban State College</i>	Janice Rech <i>IBL to Prepare Teachers in a Noyce Scholarship Program</i>

9:35-10:15am 5-Minute Reports (Zlotnik Ballroom 4)

10:15-10:45am Coffee Break (Zlotnik Pre-function Foyer)

10:45-11:45am Plenary Session Deborah Loewenberg Ball
(How) Can Mathematics Teaching Disrupt Racism and Oppression?

11:45am-12:00pm Closing Remarks and Acknowledgements
Patrick Rault, Brian Katz and William “Bus” Jaco

In Memory of



Ronald G. Douglas (1938–2018)

Ron was a trustee of the Educational Advancement Foundation and a founding director of The Initiative for Mathematics Learning by Inquiry. He had a long and distinguished career as a professor and mathematician, much of it in later years at Texas A&M University where he was also a former executive vice president and provost. In addition to significant mathematical contributions, especially in operator theory, Ron was an influential educator, regarded, for example, as the father of the calculus reform movement during the late 1980s. In a recent article, he described a major factor in his own education:

A little more than fifty years ago, I entered a classroom at the Illinois Institute of Technology (IIT), where I was a freshman, and had an experience that changed my life. The professor, Pasquale Porcelli, was teaching calculus using an inquiry-based approach I learned later was called the Moore Method. (“Inquiry-Based Learning: Yesterday and Today”. *Notices of the AMS*, 2012. 59: 668-669.)