Sixteenth Annual
Legacy of R.L. Moore Conference
June 13-15, 2013, Austin, Texas
“We Are IBL”

Program Committee
Jacqueline Jensen-Vallin (Co-Chair) Angie Hodge (Co-Chair) Gavin LaRose
Dana Ernst Stan Yoshinobu Tom Ingram
Mike Starbird Brian Katz

Journal of Inquiry-Based Learning in Mathematics
Academy of Inquiry-Based Learning
Thursday, June 13
Salon C

10:00–1pm  Registration Begins (Ballroom Prefunction)

1:00 – 1:15  Welcome & Overview (Salon C)
MC: Jacqueline Jensen-Vallin, Slippery Rock University
Angie Hodge, University of Nebraska Omaha

1:15–2:00  G. Edgar Parker, Visiting Professor, Guilford College and Professor Emeritus, James Madison University
Some Reflections on Issues in Implementing Inquiry Based Pedagogy in Mathematics

2:30-4:00  Parallel sessions about implementing IBL (coordinated by Dana Ernst)

Breakout Sessions

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<tr>
<th>Time</th>
<th>Implementing IBL (Salons A&amp;B) Moderator: Judith Covington</th>
<th>Implementing IBL (Salon C) Moderator: Susan Crook</th>
<th>Implementing IBL (Salons D&amp;E) Moderator: Tom Judson</th>
<th>Implementing IBL (Classroom 201) Moderator: Dana Ernst</th>
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| 2:30–2:45  | TJ Hitchman
Success through Failure: Assessment in a Moore Method Geometry Course | Ruthmae Sears
Increasing High School Students Opportunities to Engage in Proofs: Addressing Shortcoming of Textbooks | Joseph Malkevitch
A Sampler of Fairness and Equity Mathematical Modeling Situations | Michael Butros
An Inquiry Based Learning Approach to University Physics |
| 2:55–3:10  | Javier Garza
Implementing IBL in an Introductory Real Analysis Course | David Cusiek
“I do and I understand” Confucius | Ryan Gantner
Playing Games with IBL | |
| 3:20–3:35  | Melvyn Jeter
Engaging, Assessing and Grading in My IBL Courses | Robert Vallin
Presentation Fridays in Advanced Calculus | Jason Callahan
Inquiry-Based Learning projects in an Applied Statistics Course | |

3:45–4:00  Break for Refreshments (Ballroom Prefunction)

4:00–5:00  Ron Douglas, Texas A&M University— (Salon C)
Future of the IBL Projects at ELAF

5:40–6:00  Free Time

6:00–7:00  Reception — Cash Bar—(Ballroom Prefunction)

7:00–9:00  Dinner and Banquet Speaker (Salon C)
Cole Reed, Interactics Holdings, LLC
Mathematical Hero’s
The Journey of Independent Thinkers and the Computer as a Mathematical Object

(Introduction by John W. Neuberger)
Friday, June 14

7:30–9:00  
Continental Breakfast (Ballroom Prefunction)

MC: Angie Hodge, University of Nebraska Omaha

9:00–10:30  
Brian Katz, Augustana College (Salon C)  
Round Table Discussion

10:30–11:00  
Break (Ballroom Prefunction)

11:00–11:30  
Five Minute Talks, Session I (Salon C)

11:45–1:00  
Lunch and Speaker (Salon C)  
Introduction by Jacqueline Jensen-Vallin, Slippery Rock University  
Panel Discussion: Designing a Mathematics Major for Pre-Service Teachers  
Moderator: Martha Siegel (Chair of the CUPM)

Panelists:  
- Angie Hodge, University of Nebraska Omaha
- Michael Pearson, Executive Director, MAA
- Diana White, University of Colorado Denver

1:00–1:30  
Five Minute Talks, Session II (Salon C)

2:00–3:30  
Parallel Sessions about Courses and Math Education Research

| Time   | Calculus (Salons A&B)  
Moderator: Judith Covington | Mathematics for Education Majors (Classroom 201)  
Moderator: Stan Yoshinobu | Advanced Courses (Salons D&E)  
Moderator: TJ Hitchman | Mathematics Education Research (Salon C)  
Moderator: Vilma Mesa |
|--------|------------------------|---------------------------------|-----------------------|-------------------------------|
| 2:00–2:15 | Janice Rech and Angie Hodge  
Getting Everyone Involved in Calculus: IBL-Style | Stan Yoshinobu  
Using IBL in Courses for Future Elementary Teachers | Anna Spice  
Success and Failure in Intro-to-Proof | Anne Cawley  
Resource Use of Pre-service Elementary Teachers in an Inquiry-Based Learning Mathematics Content Course |
| 2:25–2:40 | Larissa Schroeder  
Flipping Calculus to Enhance Student Engagement | Brian Katz  
Teaching Mathematical Maturity through IBL Axiomatic Geometry | Steven Schlicker  
Abstract Algebra: An Inquiry-Based Approach | Nira White  
How Pre-service Teachers in an IBL Content Course Revise their Mathematical Communication |
| 2:50–3:05 | Ed Parker  
Finding a Proper Platform for Appropriate Rigor | Ali Shaqalah  
Inquiry-Based Learning in Math for Elementary Teachers Course | Andy Schultz  
Cross-institutional refereeing in two IBL Number Theory Classes | Kelly Bubp  
An Evaluation of Selected Notes From the Journal of Inquiry-Based Learning in Mathematics |
| 3:15–3:30 | John Neuberger  
Calculus and IBL  
See Notes (PDF) | Michael Matthews  
Engaging Teachers in a History of mathematics Class Using IBL | Dana Ernst  
Implementing IBL in an Introduction to Proof Course | Sandra Laursen and Chuck Hayward  
Building Momentum in a Movement |

3:30–4:00  
Break (Ballroom Prefunction)

4:00–5:30  
Parallel Sessions about Other Faces of IBL

| Time   | Math Teachers Circle (Salons A&B)  
Moderator: Tatiana Shubin and Diana White | Presentation Days and other MMM Techniques (Salons D&E)  
Moderator: William “Ted” Mahavier | Discovering Art of Mathematics (Salon C)  
Moderator: Julian Fleron and Philip Hotchkiss | Emerging Scholars Programs (Classroom 201)  
Moderator: Randy Cone |
|--------|---------------------------------|---------------------------------|-----------------------|-------------------------------|
| 4:00–4:15 | Panel Discussion Math Teachers Circle | Patrick Rault  
Daily e-feedback on information e-homework | Workshop Mathematical Inquiry in the Liberal Arts | Emily Cline-Turner  
Collaborative Revision and its Effects on Undergraduate Proof Skills |
| 4:25–4:40 | Cont.  
PJ Couch  
A foray into College Algebra via IBL | Cont. | Cont. | Julie Sutton and James Epperson  
A Comparison of How Emerging Scholars Program and Non-emerging Scholars Students Critique and Rate |
| 4:50–5:05 | Henry Fowler and Tatiana Shubin  
Nanejo Nation Math Circles | Elizabeth Thoren  
| 5:15–5:30 | Cont.  
Amy Keir  
Inquiry-Based Calculus III at the U.S. Navy Academy | Cont. | Cont. |  
Free Evening  


Saturday, June 15

MC: Jacqueline Jensen-Vallin, Slippery Rock University

7:30–9:00 Buffet Breakfast (Ballroom Prefunction)

9:00–10:30 Parallel Sessions

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<th>Five Centers Report (Salons A&amp;B) Moderator: Ron Douglas</th>
<th>General Contributed Papers (Salon C) Moderator: Brian Katz</th>
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| 9:00–9:15  | Ron Douglas  
Lessons from the IBL  
Centers Projects | Cornelius Stallmann  
A Tribute to William “Bill” Mahanier | Suzanne Doree  
Teaching Conjecturing |
| 9:20–9:35  | Cont.  | Bernd Rossa  
A Tribute to William “Bill” Mahanier | Tim Whitenmore  
Teachers’ Perspectives on Getting Students to Work Together |
| 9:40–9:55  | Cont.  | Thomas Judson  
The Role of Inquiry-Based Learning in Developing Teacher-Leader | Bin Lu  
Directing Independent Study Classes Using IBL |
| 10:00–10:15 | Cont.  | Brandy Comer  
Presentation Days in Calculus I and II, The First Time Around |

10:15–10:30 Break (Ballroom Prefunction)

10:30–11:30 David Pengelley, New Mexico State University (Salon C)  
How to beat the lecture/textbook trap, and then throw them both away!

11:35–12:00 Five-Minute Talks, Session III

12:00–12:15 Concluding Remarks and Thanks  
Jacqueline Jensen-Vallin, Slippery Rock University  
Angie Hodge, University of Nebraska Omaha

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