OnLine Seminar on Undergraduate Mathematics Education
https://olsume.org
2017–2018

Sep 12  Curated Courses in Mathematics
         Petra Bonfert-Taylor, Dartmouth
         Sara Eichhorn, University of California, Irvine
         David Farmer American Institute of Mathematics
         Jim Fowler, Ohio State University

Sep 26  Rolling the dice: Flipping an introductory probability and statistics class
         Jerry Orloff and Jon Bloom, Massachusetts Institute of Technology

Oct 10  Mathematical manipulatives: The MIT Mathlets
         Haynes Miller and Jennifer French, Massachusetts Institute of Technology

Oct 24  From lecture to active learning: Rewards for all, and is it really so difficult?
         David Pengelley, Oregon State University

Nov  7  MAA’s Instructional Practice Guide: Introduction to a new resource
         Beth Burroughs, Montana State University

Nov 21  Transforming the gateway: Redesigning large introductory-level courses
         Teena Gerhardt, Michigan State University

Dec  5  Active learning at Penn: 2013–2017
         Robin Pemantle, University of Pennsylvania

Dec 19  Supporting graduate students for successful teaching experiences
         Emily Braley, Harvard University and Duke University
         Robin Gottleib, Harvard University

Feb  6  Impacting students’ practice of mathematics, especially at critical moments
         Dev Sinha, University of Oregon

Feb 20  Active learning 2.0: Making it inclusive
         Darryl Yong, Harvey Mudd College

Mar  6  The Illinois Geometry Lab: Fostering a culture of undergraduate research
       and community engagement in mathematics departments
         Jeremy Tyson, University of Illinois at Urbana-Champaign

Apr  3  Mathematics emporium with adaptive technology
         Andrew Tonge, Kent State University

Apr 17  A radical approach to calculus
         David Bressoud, Macalester College

May  1  The Inquiry Oriented Differential Equations Project
         Chris Rasmussen, San Diego State University

May 15  Inquiry based learning calculus
         Angie Hodge, University of Nebraska Omaha
<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep 18</td>
<td>Rising to the challenge of diversifying the mathematics community</td>
<td>Allisa Crans, Loyola Marymount University, Dave Kung, St. Mary’s College of Maryland</td>
</tr>
<tr>
<td>Oct 2</td>
<td>Active Calculus</td>
<td>Matt Boelkins, Grand Valley State University</td>
</tr>
<tr>
<td>Oct 16</td>
<td>Educating the future professoriate:</td>
<td>Catherine Snyder, Peter Turner, Seema Rivera, Clarkson University</td>
</tr>
<tr>
<td>Oct 30</td>
<td>The College Mathematics Instructor Development Source (CoMInDS):</td>
<td>Jack Bookman, Duke University, Natasha Speer, University of Maine</td>
</tr>
<tr>
<td>Nov 13</td>
<td>Ask. Don’t tell.</td>
<td>Alfonso Gracia-Saz, University of Toronto</td>
</tr>
<tr>
<td>Nov 27</td>
<td>Teaching students to communicate as mathematicians:</td>
<td>Susan Ruff, Massachusetts Institute of Technology</td>
</tr>
<tr>
<td>Dec 11</td>
<td>A mathematics learning community on inclusive teaching</td>
<td>Gavin LaRose, University of Michigan</td>
</tr>
<tr>
<td>Feb 5</td>
<td>Inquiry and engagement in an interactive classroom</td>
<td>Annalisa Crannell, Franklin and Marshall College</td>
</tr>
<tr>
<td>Feb 19</td>
<td>Redesigning a large linear algebra service course – a travel report</td>
<td>Philipp Hieronymi, University of Illinois at Urbana-Champaign</td>
</tr>
<tr>
<td>Mar 5</td>
<td>Teaching probability and statistics from a purely Bayesian point of view</td>
<td>Sanjoy Mahajan, Olin College of Engineering</td>
</tr>
<tr>
<td>Mar 19</td>
<td>Video textbooks in the active learning classroom</td>
<td>Mike Weimerskirch, University of Minnesota</td>
</tr>
<tr>
<td>Apr 2</td>
<td>Inquiry based learning at Michigan</td>
<td>Ralf Spatzier, University of Michigan</td>
</tr>
<tr>
<td>Apr 30</td>
<td>Active learning in calculus at Cornell</td>
<td>Steve Bennoun and Tara Holm, Cornell University</td>
</tr>
<tr>
<td>May 14</td>
<td>Managing college group work and creating groupworthy tasks</td>
<td>Eric Hsu, San Francisco State University</td>
</tr>
</tbody>
</table>
Course-based undergraduate research experiences: Two examples
Sunil Chebolu, Illinois State University
Haynes Miller, Massachusetts Institute of Technology

A focus on student buy-in: Why it matters and what to do about it
Stan Yoshinobu, California Polytechnic State University

Student-centered assessment of mathematical proficiency
Benjamin Braun, University of Kentucky

Integrating sustainability into the mathematics curriculum
Bree Ettinger, Emory University

Incorporating service-learning into math courses
Sara Billey, University of Washington

Co-creating interactive online exercises
Annoesjka Cabo, Delft University of Technology

A scalable hybrid introductory ODE course
Dave Levermore, University of Maryland, College Park

Who are we?: On the diversity and demographics of the mathematics community
Ron Buckmire, Occidental College

Active learning online: A panel discussion
Rick Cleary, Babson College
Rachel Levi, MAA
Mike Weimerskirsch, University of Minnesota

TPSE’s top ten things every online instructor should do
Abbe Herzig, AMS
Dave Kung, TSPE

Keep it active: Engaging students in virtual classrooms
Rena Levitt, Minerva Schools at KGI

Calculus in context: Introducing calculus ideas through epidemiology models
Eric Stade, University of Colorado, Boulder

Project-based learning
Rachel Levy, Mathematical Association of America

What mathematical knowledge improves high school math teaching?
Yvonne Lai, University of Nebraska, Lincoln

Reliable classification of classroom practices using lecture recordings
George Kinnear, University of Edinburgh
2020–2021

Sep 15  A touch of calculus: Shaking up the pre-requisite structure of college mathematics
Rick Cleary, Babson College

Sep 29  Assessing students’ proofs online
Chris Sangwin, University of Edinburgh

Oct 13  Creating accessible materials
Rob Beezer, University of Puget Sound

Oct 27  Quantitative reasoning and intellectual need as design principles for instructional materials
Jason Martin, University of Central Arkansas,
Michael Tallman, Oklahoma State,
Matt Thomas and Aaron Weinberg, Ithaca College

Nov 10  Welcoming freshmen to the world of mathematics
Uri Treisman and Erica Winterer, University of Texas, Austin

Dec 1  A fun, engaging, and effective approach to teaching calculus
Shay Fuchs, University of Toronto

Dec 15  Tuning up your remote mathematics teaching
Maria Anderson, Westminster College

Jan 5  Meaningful, motivating online assessments
Paul Bourdon, University of Virginia

Jan 19  The value of computational thinking in statistics education
Jo Hardin, Pomona College

Feb 2  Mathematical proof, online assessment, and high school connections in first-year discrete mathematics
Doug Ensley, Shippensburg University

Feb 16  Using inquiry and active learning in mathematics - and how COMMITs can help
Christine von Renesse, Westfield State University

Mar 2  PrairieLearn: A flexible platform for writing randomized auto-grading questions
Matt West, University of Illinois

Mar 16  Documents for teaching a lesson: Lecture notes and their production
Vilma Mesa, University of Michigan

Mar 30  A course to prepare students for careers in business, industry, and government – PIC Math
Michael Dorff, Brigham Young University

Apr 13  The Mathematical Inquiry Project
Bus Jaco and Mike Oehrtman, University of Oklahoma

Apr 27  Mastery-based grading in higher education
Silvia Huebach and Sharona Krinsky, Cal State LA

May 11  Onboarding instructors to an active-learning class
Jason Siefken, University of Toronto
2021–2022

Sep 14  A cheat-proof calculus exam?
     Lew Ludwig, Denison University

Sep 28  Linear algebra and deep learning
     Gil Strang, Massachusetts Institute of Technology

Oct 12  Incorporating research opportunities in undergraduate math courses
     Pamela Harris, Williams College

Oct 26  Manipulative calculus: Active learning with 3D models
     Stepan Paul, North Carolina State University

Nov 9   Rethinking linear algebra
     Rekha Thomas, University of Washington

Nov 23  Mentoring community college math students through transfer
     Eddie Tchertchian, Pierce College

Dec 7   Fostering positive collaboration
     Kathryn Leonard, Occidental College

Jan 11  Active learning in a remote classroom
     Angie Hodge-Zickerman, Northern Arizona University

Feb 8   Open Textbook Initiative
     Kent Morrison, American Institute of Mathematics

Feb 22  New Horizons: Exploring the possibilities and benefits
        of study abroad programs post-pandemic
     Vladimir Ivanov (Math in Moscow)
     Ran Libeskind-Hadas (Aquincum Institute of Technology)
     Ryota Matsuura (Budapest Semesters in Math Education)
     Rogelio Ramos Quiroga (Mathematical Sciences Semesters in Guanajuato)
     Kathryn A. Ziegler-Graham (Budapest Semesters in Mathematics)

Mar 8   Calculus at multiple scales: Successes and challenges
     Phil Gressmann, University of Pennsylvania

Mar 22  Adapting active learning in precalculus and calculus courses to changing conditions
     Martina Bode, University of Illinois at Chicago

Apr 5   Geometric reasoning in multivariable calculus
     Tevian Dray, Oregon State University

Apr 19  Computer theorem provers in the classroom?
     Kevin Buzzard, Imperial College London

May 3   Reimagining mathematical experiences for students in introductory courses
     Brendan Kelly, Harvard University
Sep 13  The Inquiry-Oriented Linear Algebra Project  
Megan Wawro, Virginia Tech

Sep 27  Reshaping the calculus sequence for engineering majors  
Gianluca Guadagni, University of Virginia

Oct 11  Embodied cognition: What is it? How does it involve mathematics?  
Hortensia Soto, Colorado State University

Oct 25  Improving student outcomes in mathematics: What do we know?  
What can we (reasonably) do?  
Wendy Smith, University of Nebraska

Nov 8  An implementation of standards-based grading in a large linear algebra class  
Rose Morris-Wright, Middlebury College

Nov 22  Assessing mathematical virtues, not just skills  
Francis Su, Harvey Mudd College

Dec 6  
Steve Strogatz, Cornell University