

2021 PNW NEXT Program; Virtual Meeting on Pacific Time Zone

June 25, 2021 Friday

Zoom Information

<https://maa.zoom.us/j/98937282011?pwd=cURURktuckVWaDNMQ2YwWkZ1NjBQU09>

Meeting ID: 989 3728 2011

Passcode: 361791

Phone In: 669-900-6833

- 8:00 **Announcements and Introduction of New and Old Fellows**
New leadership positions (Assistant Secretary, Assistant Webmaster) and open Associate Director position
- 8:10 **Session I: Mastery Grading**, Stuart Boersma, Central Washington U
Panelists: Stuart Boersma, Central Washington U; Jakob Kotas, U of Portland; Leanne Merrill, Western Oregon U; Jean Marie Linhart, Central Washington U
- 9:10 **Session II: Challenges and Opportunities for Shifting Our Pedagogy Toward Evidence-Based Active Learning Methods that Substantially Improve Student Success**, David Pengelley, Oregon State U; Dev Sinha, U of Oregon
- 10:10 **Break**
- 10:25 **Session III: The Rise of MathWay and Slader: How Easily-Found Homework Solutions Change Our Teaching**, Brent Hancock, Central Washington U; Leanne Merrill, Western Oregon U
Panelists: Ander Erickson, U Washington Tacoma; Chris Black, Central Washington U; Eric Hogle, Gonzaga U
- 11:05 **Session IV: Panel on Current/Post-Pandemic Teaching**, Allison Henrich, Seattle U; Angela Siple, Seattle U
Panelists: Ramadha Piyadi Gamage, Western Washington U; Brandy Wieggers, Central Washington U; Katya Yurasovskaya, Seattle U
- 12:05 **Break for lunch**
- 1:05 **Session V: The Role of Data Science in the Mathematics Curriculum**, Megan Buzby, U of Alaska Southeast; Hans Nordstrom, U of Portland
Panelists: Michael Dorff, MAA Past President; Matthew Richey, St. Olaf College; Christopher Wrather, Savvy Aviation
- 2:05 **Wrap up, comments, suggestions**
Accepting nominations and volunteers for Section NExT leadership positions
- 2:30 **Adjourn**
- 3:00 – 5:30 **Minicourses** – TRIUMPHS and SIMIODE
Register and find zoom information at the [section meeting website](#)
- 6:00 **Break**
- 7:00 **Public Talk: How mathematics is making Hollywood movies better**, Michael Dorff
Find the zoom information on the [section meeting website](#)

ABSTRACTS

Session I: Mastery Grading, Stuart Boersma, Central Washington U

Panelists: Stuart Boersma, Central Washington U; Jakob Kotas, U of Portland; Jean Marie Linhart, Central Washington U; Leanne Merrill, Western Oregon U

Abstract: This lively interactive panel will facilitate a discussion on Mastery Based Grading (or Standards Based Grading). We will examine the pedagogical pros and cons, share success stories, brainstorm solutions to common challenges, and share specific grading schema from a variety of mathematics classes.

Session II: Challenges and Opportunities for Shifting Our Pedagogy Toward Evidence-Based Active Learning Methods that Substantially Improve Student Success, David Pengelley, Oregon State U; Dev Sinha, U of Oregon

Abstract: Compelling reasons and resources are now in place to support shifting our pedagogy toward evidence-based active learning methods that substantially improve student success. These include the recent CBMS Statement on Active Learning, MAA Instructional Practices Guide, and MIT Electronic Mathematics Education Seminar. But implementation is not quick and easy. There are still plenty of obstacles, individual and institutional, along with opportunities. This event will foster small group discussion, and solicit ideas. Issues to begin discussing include developing departmental experts who can lead and mentor; culture, inertia, and incentive; an inventory tool of teaching practices for observations and training; programming for department chairs; collaborating with peers, seeing classrooms; what to do to bring in colleagues; leading from below; finding resources and the time involved; large enrollment courses; graduate student and early career training; program evaluation and deeper, more authentic learning outcomes; redesigning the publishing of teaching materials, possibly through new economic models. Participants should leave better prepared to implement active learning pedagogy themselves and advocate for it in their departments, connect with faculty elsewhere in doing so, and influence national efforts.

Please read this MAA FOCUS article <https://arxiv.org/abs/1907.12128> prior to the presentation. Also see Dr. Pengelley's website for more resources <https://web.nmsu.edu/~davidp/>.

For this presentation, you will need to access Zoom via the desktop client or mobile app; the web-based version will not work to move between break-out rooms.

Session III: The Rise of MathWay and Slader: How Easily-Found Homework Solutions Change Our Teaching, Brent Hancock, Central Washington U; Leanne Merrill, Western Oregon U

Panelists: Chris Black, Central Washington U; Ander Erickson, U Washington Tacoma; Eric Hogle, Gonzaga U

Abstract: This panel will discuss the emerging prevalence of online homework solutions and solution generators. We will explore how students use these resources, how to monitor and/or control student use, and how the nature of our assessments might evolve in light of such online resources. We will look at examples throughout the range of undergraduate mathematics courses.

Session IV: Panel on Pandemic and Post-Pandemic Teaching, Allison Henrich, Seattle U; Angela Siple, Seattle U

Panelists: Ramadha Piyadi Gamage, Western Washington U; Brandy Wieggers, Central Washington U; Katya Yurasovskaya, Seattle U

Abstract: It's probably fair to say we've all adjusted the way we teach over the last year and a half. We've tried new technologies and pedagogies and experimented with different ways of building supportive classroom communities. Some things we've tried have worked well and some have failed miserably. Some of the teaching techniques we've developed during the pandemic are ones we're planning to keep when things return to some semblance of normalcy, while we can't wait to dispense with others. In this panel, our panelists will share their own reflections on these topics and will invite the audience to engage in conversation around this timely theme.

Session V: The Role of Data Science in the Mathematics Curriculum, Megan Buzby, U of Alaska Southeast; Hans Nordstrom, U of Portland

Panelists: Michael Dorff, MAA Past President; Matthew Richey, St. Olaf College; Christopher Wrather, Savvy Aviation

Abstract: As the amount and accessibility of data increases around the world, and concerns grow about how that data is analyzed, we ask our panelists for their views on the role of data science in undergraduate mathematics curriculum generally and in preparing students for jobs after graduation.