

February 27th, 2014

Maplesoft Virtual User Summit - Program

How to Attend a Presentation

To attend a presentation, visit the **Auditorium**, select the presentation you wish to view, and click the **Attend** button. Some presentations are recorded, and so can be viewed ahead of their scheduled time, but the question and answer session with the presenters will be held near the end of the scheduled time slot.

How to Join the Question and Answer Sessions

To ask a question during the Keynote Presentations, click on the **Q&A** button at the bottom of the screen, and then click the **Add Question** button. For all other presentations, visit the **Communication Lounge**, click on **Scheduled Chats**, and select the chat for your presentation.

Program Summary

9:00 AM	Keynote Presentation Maplesoft Education Vision Jim Cooper, CEO & President, Maplesoft Andrew Rourke, Director, Academic Markets, Maplesoft	
10:00 AM	Keynote Presentation Technology Roadmap: The Path to the Future Laurent Bernardin, Executive Vice President & Chief Scientist, Maplesoft Paul DeMarco, Director of Development, Maple and Maple T.A., Maplesoft Andrew Smith, Vice President of Product Development, Maplesoft	
	Stream 1: Education	Stream 2: Research
11:00 AM	Transforming University Math Courses	Maple and Mathematics Research
12:00 PM	Visit us in the Exhibit Hall	
1:00 PM	Challenges and Solutions for Engineering Educators	Advances in Mathematical Computation from Maplesoft
2:00 PM	New Tools for Educators: A Sneak Peek	Tackling the Challenges of Engineering Research
3:00 PM	Bringing Excitement and Relevance to High School Math	Advanced Maple Programming Techniques

The Exhibit Hall is open from 8:30 AM – 5:00 PM.

Stream 1: Education

Transforming University Math Courses

11:00 AM to 12:00 PM EST

There are many ways to bring Maplesoft technology to university math courses, from adding new energy to traditional lectures to fundamentally transforming the curriculum to reflect a new pedagogy. Eminent educators discuss how Maplesoft technology transforms the classroom and the benefits this transformation brings to students.

Robert Lopez, Emeritus Professor of Mathematics, Rose-Hulman Institute of Technology & Maple Fellow, Maplesoft

Jack Weiner, Emeritus Professor of Mathematics, University of Guelph

Challenges and Solutions for Engineering Educators

1:00 PM to 2:00 PM EST

Learn how educators are reinforcing engineering concepts and bringing together theory and applications in new ways through a combination of modeling and simulation software, connectivity to hardware, mathematics, and testing and assessment tools. These techniques have been successfully applied from first year design courses to fourth-year projects, offering even the most junior students a taste of “real engineering”.

Thomas Doyle, Professor, Electrical and Computer Engineering, McMaster University

Bruce Char, Professor, Department of Computing, Drexel University

James Andrew Smith, Professor, Electrical and Biomedical Engineering, Ryerson University

New Tools for Educators: A Sneak Peek

2:00 PM to 3:00 PM EST

See what's coming next! In the next few months, Maplesoft will be releasing new tools for educators through new releases of Maple™, Maple T.A.™, and The Möbius Project™. In this session, you'll get an advance look at upcoming product features and tools that enhance mathematical and technical education.

Daniel Skoog, Maple Product Manager, Maplesoft

Jonny Zivku, Maple T.A. Product Manager, Maplesoft

Bringing Excitement and Relevance to High School Math

3:00 PM to 4:00 PM EST

High school educators will show how they use Maple to engage students, help them learn new concepts, allow them to solve real-world problems using only the math they already know, and give them an enticing glimpse of the math they will see in college. Maple can even make students say “Wow, that's really cool” once in awhile!

Calvin Armstrong, High School Teacher, Appleby College

Jason Schattman, High School Teacher, Sir John A. Macdonald Secondary School

Scott Hagan, BCIT/Building Better Math Project, British Columbia Institute of Technology

Stream 2: Research

Maple and Mathematics Research

11:00 AM to 12:00 PM EST

Maple is an invaluable part of many mathematical research projects. This session highlights the work of two different researchers who explain how they use Maple in their work and which techniques they find to be most effective. Projects involving the study of self-righting shapes and cryptography will be explored.

Gabor Domokos, Professor, Department of Mechanics, Materials and Structures, Budapest University of Technology and Economics

William Bauldry, Professor of Mathematics, Appalachian State University

Advances in Mathematical Computation from Maplesoft

1:00 PM to 2:00 PM EST

Not only do many people use Maple to advance their research in a wide variety of fields, but Maplesoft itself is involved in advanced research projects for mathematical computations. In this session, you'll hear about some of the latest progress by Maplesoft and its academic partners in parametric polynomial systems, polynomial arithmetic, differential-algebraic equations, and physics computations.

Edgardo Cheb-Terrab, Research Fellow, Maplesoft

Juergen Gerhard, Director of Research, Maplesoft

Tackling the Challenges of Engineering Research

2:00 PM to 3:00 PM EST

Engineering researchers are making significant strides in their work with the help of advanced physical modeling technology. This presentation explores the work of several renowned researchers, and discusses such diverse projects as space rovers, hockey sticks, parallel manipulators, and electric and hybrid-electric vehicle batteries.

John McPhee, Professor and NSERC/Toyota/Maplesoft Industrial Research Chair in Mathematics-based Modelling and Design, University of Waterloo

Venkat Krovi, Professor, Mechanical and Aerospace Engineering, SUNY Buffalo

Amir Khajepour, Professor, Mechanical and Mechatronic Engineering, University of Waterloo, and Canada Research Chair in Mechatronic Vehicle Systems

Advanced Maple Programming Techniques

3:00 PM to 4:00 PM EST

Learn from the experts in this session on advanced Maple programming techniques. Maple is a very powerful programming language which offers sophisticated tools for the modern programmer. In this session, you'll see a number of techniques that can be used to develop robust, efficient, maintainable solutions to your problems. Topics include structuring your code, making the best use of Maple's data structures, and programming for efficiency. You'll also learn about Maple's parallel computing tools, which allow you to take full advantage of the processing power of your computer.

Darin Ohashi, Senior Kernel Developer, Maplesoft

Paul DeMarco, Director of Development, Maple and Maple T.A., Maplesoft

Erik Postma, Senior Architect, Mathematical Software, Maplesoft