

rewriting. I like to spend time on how the words sound as well as the structure.

IP: How do you see your role as President of the MAA?

DB: It's a great opportunity to be able to talk about and have some influence on the issues that I care about, in particular undergraduate education. I love the fact that we've got this organization for which the emphasis is mathematics at the undergraduate level, communicating the excitement of this mathematics to a broad audience and thinking about how we can teach it more effectively.

We need to rethink what goes on in undergraduate mathematics. I think we've been tied exclusively to supporting the engineering colleges for too long. There are so many exciting opportunities and challenges out there for mathematics to broaden its involvement with the biological sciences and the social sciences. I want to see that pushed, and this is an opportunity for me to do that.

The complete interview is available online at <http://www.maa.org/news/010209bressoud.html>. 

Ivars Peterson is the MAA's Director of Publications for Journals and Communications.

The Wolfram Demonstrations Project

Olivia M. Carducci

I have never felt compelled to evangelize about a mathematical tool before. Oh sure, I love to talk about my research and my teaching innovations, and I like to publish my work so others can read about it. But I understand that not everyone is as interested in my work as I am. However, the Wolfram Demonstrations project is so far-reaching and so exciting that I am spreading the word to everyone I know who has any connection to mathematics. I have barraged my colleagues, my children's teachers, my students, my children, and some of my children's friends. And now I'm writing this article.

The Wolfram Demonstrations project is a web site at <http://www.demonstrations.wolfram.com> with thousands of *Mathematica* Demonstrations on an amazing range of topics. A Demonstration is a *Mathematica* notebook that takes advantage of *Mathematica*'s Manipulate command. The Manipulate command makes it astonishingly easy to create sliders or buttons or checkboxes that change the values of parameters in the displays in the Demonstration. The result is a user-controlled animation. The other key

to this project was the development of the *Mathematica* Player, which allows those without access to *Mathematica* to run the Demonstrations. This makes the Demonstrations available to my students, high school teachers, elementary school children, in fact anyone with Internet access.

Demonstrations are available on topics ranging from odd and even numbers to odd and even functions, from fractions to fractals, and from linear functions to linear algebra and linear programming. A recent search on "differential equations" yielded over a hundred Demonstrations. A search on "statistics" yielded over 200! In addition to mathematical topics, there are Demonstrations illustrating the time in different cities around the world, global demographic information, and the solar system. There are two different hangman games. The possibilities are endless.

Call for Proposals

MAA, Tensor Foundation, and SUMMA

Grants are available to support:
Women in Math
Underrepresented Minorities in Math

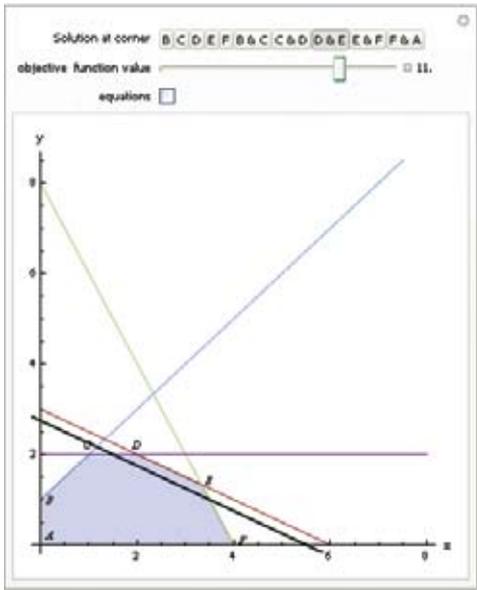
The Tensor Foundation has provided funding for the MAA to award grants for programs designed to encourage the pursuit and enjoyment of mathematics among female middle school students, high school students, and/or beginning college students, and among those from other groups traditionally underrepresented in mathematics. College and university math faculty and their departments and institutions may submit proposals. They should collaborate with secondary and middle school mathematics faculty, as appropriate. Proposed programs may replicate existing successful programs, adapt components of such programs, or be entirely new.

For more information on grants to support women in math, please write to ffasanelli@verizon.net, or visit:

www.maa.org/tensorwomen.html

For more information on grants to support underrepresented minorities in math, please visit:

www.maa.org/tensorsumma.html



“Graphical Linear Programming for Two Variables” from The Wolfram Demonstrations Project | <http://demonstrations.wolfram.com/GraphicalLinearProgrammingForTwoVariables/>

Contributed by: Olivia M. Carducci (East Stroudsburg University)

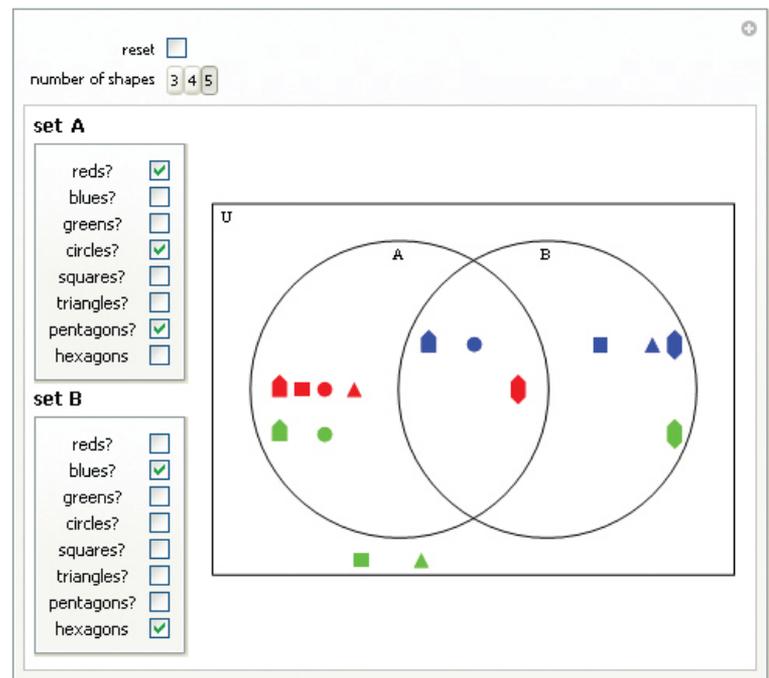
Demonstrations have given me a new classroom tool. I have used several different Demonstrations to review functions with my calculus I class. (If you want a challenge, try Izidor Hafner’s Function Identification Game at <http://www.demonstrations.wolfram.com/FunctionIdentificationGame/>.) I have used Demonstrations to illustrate probability concepts in my elementary statistics class and to illustrate graphical linear programming in my operations research class. Any time you want to illustrate the effect of changing a parameter, a Demonstration is appropriate and often already available for your use.

At my institution, writing and publishing a Demonstration on the Demonstrations web site is considered scholarly activity. Writing Demonstrations has increased my understanding of *Mathematica*. The Demonstrations team at Wolfram has been very responsive to my questions and comments. The review process is quick and professional. I would like it if they actually told you when they post your Demonstration, but not knowing encourages me to check the site frequently. Searching the Demonstrations web site is a wonderful time waster that you

don’t have to feel too guilty about. Sure, you’re not grading those quizzes, but you’re looking for teaching resources.

I learned about the Demonstrations project about nine months ago when I was home with a sick child. I had been receiving messages from Wolfram Research about *Mathematica* 6 web-based seminars, but always felt I was too busy to try one out. That day, however, I had plenty of time on my hands, and I decided to see whether there was a seminar being offered. The only seminar being offered was the Creating Demonstrations seminar. I didn’t know what a Demonstration was, but I figured why not; if I don’t like it I can drop out. That time filler, on a day that I was stuck at home, had far-reaching consequences for my professional development.

So, put down this magazine, turn on your computer, and go to <http://www.demonstrations.wolfram.com>. What if you don’t? You won’t be damned for all eternity, but you will be missing out on a great resource. ☺



“Venn Diagrams for Two Sets” from The Wolfram Demonstrations Project | <http://demonstrations.wolfram.com/VennDiagramsForTwoSets/>

*Contributed by: Olivia M. Carducci (East Stroudsburg University)
Inspired by: Mary Ann Liberatore (Holy Family Elementary School)*

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Olivia Carducci is an assistant professor of Mathematics at East Stroudsburg University. In addition, she is a Girl Scout leader, a Cub Scout leader, and a soccer coach. She has spent many hours fiddling with Demonstrations in the last year and hopes you will join the fun.