International Women’s Day & International Year of Statistics

The Department of Mathematics, University of Massachusetts Dartmouth, and the more than 1,775 organizations in 121 countries participating in the International Year of Statistics (Statistics2013) join women around the world in the celebration of International Women’s Day March 8, 2013.

Observed each year on March 8, International Women’s Day is a global day celebrating the economic, political and social achievements of women past, present and future. In places like China, Russia, Vietnam and Bulgaria, International Women’s Day is a national holiday. The event has been observed since the early 1900s, which was a time of great expansion and turbulence in the industrialized world that saw booming population growth and the rise of radical ideologies.

Statistics2013 is a worldwide initiative that is highlighting the contributions of the statistical sciences to finding solutions to global challenges. The Department of Mathematics, University of Massachusetts Dartmouth, is a Statistics2013 participating organization.
Like their counterparts in other professional fields, women pioneers in the statistical sciences have made outstanding and trailblazing contributions to their profession and have opened the field to more women. The statistical sciences profession and our global society has greatly benefited from the groundbreaking contributions of women statisticians including Florence Nightingale, who used statistics to modernize health care; Dr. Janet LaneClaypon, who made several important contributions to epidemiology by using and improving its use of statistics; and Janet Norwood, who as the first woman commissioner of the U.S. Bureau of Labor Statistics made major contributions to government statistics.

Today, the number of women among mathematicians and statisticians equals the number of men, says a U.S. Census Bureau American Community Survey report. Further, women statisticians are influential in many countries — 41 of the world’s 190 statistical offices were headed by women in 2010, says The World’s Women 2010: Trends and Statistics, a report commissioned by the United Nations. Lastly, women have earned more than 40% of math and statistics bachelor’s degrees throughout the past four decades.

Mathematics of Planet Earth

The mission of the Mathematics of Planet Earth project is to:

- Encourage research in identifying and solving fundamental questions about planet earth
- Encourage educators at all levels to communicate the issues related to planet earth
- Inform the public about the essential role of the mathematical sciences in facing the challenges to our planet

Read more at [MPE2013](#).
Mathematical history: Markov’s development of Markov Chains

Markov chains are commonly utilized probability models. They are named for their inventor, Andrey Andrei
 Averyich Markov. Brian Hayes writing in American Scientist, has a very interesting account of how
Markov developed his theory of Markov chains through analysis of Alexander Pushkin’s novel Eugene One-
gin.

Adventures in Mathematical Knitting

Also in American Scientist, Sarah-Marie Belcastro has a very lovely article on knitted surfaces.

Mathematics problem

A person stands on the first step of a very long garden path made of stone steps. The person repeatedly tosses a coin and walks one step forward if the coin lands heads up, and two steps forward if the coin lands tails up. What is the probability, approximately or exactly, that the person lands on the 20th step?
Reminders:

1. **SIAM News**

   The local SIAM chapter meets on Thursdays at 3:30 PM, in room 218 Liberal Arts. To find out more about the SIAM chapter and its activities, contact Andrew Davey: adavey@umassd.edu, Ed McClain: emcclain@umassd.edu or Nick Moniz.

2. **MPOWR**

   Tiffany Ferreira (featured in the Newsletter of September 28, 2012) is the student coordinator of MPOWR - a project of the Office of Undergraduate Research that aims to promote opportunities for mathematics and physics majors through research. If you are a female mathematics major, get in touch with Tiffany - tferreira3@umassd.edu - and find out how MPOWR might help you to a potentially brighter mathematics career.

Contact

If you have mathematics related stories or news, suitable for this newsletter, please contact the editor, Gary Davis: gdavis@umassd.edu

All and any news of achievements, plans, wishes, desires, hopes, dreams or just plain gossip will be gratefully received.